

DE LA CONS...
OBJETIVO FINAL DE...
ORGANIZACIÓN ES EL DE ASEGURAR...
EL DERECHO A ESTAR PROTEGIDA CONTRA EL...
LA DISPOSICIÓN MODIFICADA DICE:
«Y CONTRIBUIR ASÍ A LA EXPANSIÓN DE LA
ECONOMÍA MUNDIAL Y A LIBERAR DEL HAMBRE
A LA HUMANIDAD.»

联合国粮食及农业组织的章程序言

接受本章程的国家为了下述宗旨：
提高它们各自管辖下的人民的营养
水平和生活标准，
改进一切粮农产品的生产和分配的
效率，
改善农村人口的状况，

D'AME...
RURALES,
ET DE CONTRIBUER AINSI
L'ECONOMIE MONDIALE,
CONSTITUENT PAR LES PRÉSENTES L'ORGANISATION
DES NATIONS UNIES POUR L'ALIMENTATION ET
L'AGRICULTURE, PAR L'INTERMÉDIAIRE DE LAQUELLE
LES MEMBRES SE TIENDRONT MUTUELLEMENT INFORMÉS
DES MESURES PRISES ET DES PROGRÈS ACCOMPLIS
DANS LES CHAMPS D'ACTIVITÉ ÉNONCÉS CI-DESSUS.

C 89/3
معدية والزراعة
مستور ، وقد عقدت المزم على
بدعم العمل الفردي والجماعي
المعيشة للشعوب التابعة لكل منها،
مجات الغذائية والزراعية وتوزيعها،

À L'OCCASION DU VINGTIÈME ANNIVERSAIRE,
LE PRÉAMBULE DE L'ACTE CONSTITUTIF A ÉTÉ
OFFICIELLEMENT MODIFIÉ POUR AFFIRMER
QUE L'OBJECTIF ULTIME DE TOUTES LES
DIVERSES ACTIVITÉS DE L'ORGANISATION EST
D'AFFRANCHIR L'HOMME DE LA FAIM.
LE TEXTE DIT DÉSORMAIS:

the Director-General's PROGRAMME of WORK and BUDGET for 1990-91

البها فيا بعد بلفظ «المنظمة» والتي
بعضهم بعضا بما يشهد من تدابير، وما
مبادئ العمل المبينة فيما سبق.

人类免于饥饿。”

PREAMBLE TO THE CONSTITUTION OF FAO

THE NATIONS ACCEPTING THIS CONSTITUTION
BEING DETERMINED TO PROMOTE THE COMMON
WELFARE BY FURTHERING SEPARATE AND
COLLECTIVE ACTION ON THEIR PART FOR THE
PURPOSES OF:
RAISING LEVELS OF NUTRITION AND STANDARDS
OF LIVING OF THE PEOPLES UNDER THEIR
RESPECTIVE JURISDICTIONS,
SECURING IMPROVEMENTS IN THE EFFICIENCY
OF THE PRODUCTION AND DISTRIBUTION OF
FOOD AND AGRICULTURAL PRODUCTS,
BETTERING THE CONDITION OF RURAL
POPULATIONS,
AND THUS CONTRIBUTING TOWARD AN EXPANDING
WORLD ECONOMY,

CONSTITUYEN POR LA PRESENTE LA
ORGANIZACIÓN DE LAS NACIONES UNIDAS
PARA LA AGRICULTURA Y LA ALIMENTACIÓN,
POR CUYO CONDUCTO LOS MIEMBROS SE
INFORMARÁN RECÍPROCAMENTE SOBRE LAS
DISPOSICIONES QUE ADOPTEN Y EL PROGRESO
LOGRADO EN LOS CAMPOS DE ACTIVIDADES
ENUNCIADOS ANTERIORMENTE.

CON OCASIÓN DEL 20º ANIVERSARIO,
FUE SOLEMNEMENTE MODIFICADO EL PREÁMBULO
DE LA CONSTITUCIÓN PARA RECONOCER QUE EL
OBJETIVO FINAL DE TODAS LAS ACTIVIDADES DE



FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

联合国粮食及农业组织的章

PRÉAMBULE CONSTITUTIF DE LA FAO

HEREBY ESTABLISH THE FOOD AND AGRICULTURE
ORGANIZATION OF THE UNITED NATIONS
THROUGH WHICH THE MEMBERS WILL REPORT TO
ONE ANOTHER ON THE MEASURES TAKEN AND THE
PROGRESS ACHIEVED IN THE FIELDS OF ACTION

接受本章程的国家为了下
提高它们各自管辖下的人
水平和生活标准，
产品的生

C 89/3

July 1989

Twenty-fifth session
11-30 November 1989

The Director-General's
PROGRAMME OF WORK
and
BUDGET
for
1990-91

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DIRECTOR-GENERAL'S INTRODUCTION

I have the honour to submit to the Conference, for its consideration and eventual approval, my proposals for the Programme of Work and Budget for 1990-91.

As recommended by the Council at its Ninety-fifth Session, these proposals are based on the *Summary* examined by the Council and take into consideration the reaction of the Council to it.

The consideration of these proposals will be facilitated, as in the past, by other major documents which I am also submitting to the Conference, in particular the *Reviews of the Regular and Field Programmes*.

Programme budget process

The review of certain aspects of FAO's goals and operations, set in motion by Conference Resolution 6/87, provided scope *inter alia* for considering possible improvements in the programme budget process.

The process of preparing this Programme of Work and Budget for 1990-91 included the additional preliminary step, approved on an experimental basis by the Council at its Ninety-fourth Session, of submitting to the Programme and Finance Committees meeting in a Joint Session in January 1989 a brief document in the form of an Outline, indicating the budget level I intended to use in the preparation of the Programme of Work and Budget 1990-91, together with the main activities to be undertaken.

In accordance with the *Basic Texts*, the *Summary Programme of Work and Budget* was as usual submitted to the Council at its Ninety-fifth Session. At that time the Council also considered the merits of the procedure involving the additional step of an Outline.

A number of countries expressed support for the eventual continuation of this new procedure of an Outline into the next biennium in as much as the Outline appeared to have permitted early consideration of the proposals and a fruitful dialogue between member countries and the Secretariat and thus paved the way for consensus on the proposed Programme of Work and Budget. Other countries, however, expressed doubts on the value of the procedure in that no consensus was yet evident, there were additional costs involved and that the objective might be reached in other ways. It was suggested that the crucial test of the

value of this additional consultative step would take place when the Conference considered and decided on the full Programme of Work and Budget proposals. The Council concluded that a final decision on the issue of continuing the Outline should therefore be taken at the Conference.

Irrespective of the decision that the Conference may take on the eventual continuation of this new procedure, the Programme and Finance Committees expressed appreciation for the Outline as a policy document, endorsed the policy approach regarding priorities and the priority areas intended to benefit from additional resources, and had an opportunity to receive a first indication of the cost increases which would have to be provided for.

The external challenges

The challenges facing world food, agriculture, forestry and fisheries are all the more urgent to resolve because of the ceaseless growth in world population, increasing by some 80 million per year; the scant success in the fight against poverty; the increasing problems of ensuring development on a sustainable basis; heightened tension in world trade; the intolerable burden of external debt on developing countries; and the increased complexity and difficulty of resolving problems in the present world situation. This assessment was shared by the Council, at its Ninety-fifth Session in June 1989, when it reviewed the global and regional food situation.

Production of staple foods has fallen below aggregate consumption levels for the second consecutive year and in *per caput* terms was only 1 percent more in 1988 than it had been at the beginning of the decade. World carry-over stocks of cereals are expected to be drawn down by the largest recorded amount in any one year, in 1988/89. They are expected then to be at the minimum level that FAO considers necessary to safeguard world food security. Prices of cereals have risen significantly on international markets, creating problems for low-income, food-deficit countries of financing imports, particularly for those countries with severe debt-servicing difficulties, and jeopardizing the access to food of vulnerable groups of their popula-

tions. These problems are exacerbated by the decline in the volume of food aid, which has fallen to its lowest level in the past six years.

Problems are challenges. For FAO, these problems mean a full agenda of action. The magnitude of the demands made on FAO attest to the confidence of Member Nations in the relevance and efficacy of the Organization.

The internal challenges

In recent years, the Organization has been severely put to the test by problems of liquidity. Programmes have been cut back. The large majority of Member Nations have thus been deprived of support and services which were approved and which they were entitled to expect from FAO. The damage to the programmes since 1986 has resulted not only in curtailed service offered to Member Nations, but also in damage to FAO's stock of accumulated expertise and its ability to take account of developments in a rapidly changing world.

When examining the *Summary Programme of Work and Budget*, the Council recalled that the proposals for the 1990-91 biennium needed to be seen in the context of the heavy programme cuts effected in the 1987-88 period, amounting to US\$45 million. The negative effects of these cuts are also being felt in the current biennium and will still be felt in future biennia.

Maintaining the liquidity of the Organization remains a challenge. The management of our finances has meant a constant battle to ensure the required cash flow and to avoid recourse to borrowing. We have managed to do this and, with the necessary support of Member Nations, we intend to continue to do so.

The large majority of Member Nations have given proof of their willingness and readiness to meet their financial obligations. Those Member Nations who encounter serious difficulties in meeting these obligations, because of external debt and economic problems, are striving to overcome them. And the special situation of the largest contributor is on the verge of a considerable change for the better through a full appropriation to meet obligations to UN organizations for the next year, and a projected plan for the graduated settlement of arrears.

The Council noted that the financial situation is still fragile, though there was guarded optimism that further programme disruptions would be avoided. The Council emphasized that the prime basis of the Organization's financial recovery was the prompt payment of contributions for current assessments and settlement of arrears. In the same spirit, it underlined that assured and adequate resources are essential for FAO's long-term evolution and effectiveness.

Overall approach

The technical and economic programmes are the life-blood of the Organization. It is these that Member Nations look to and rely on for support and assistance in their own efforts to resolve the problems of food and agriculture. For the past several biennia, I have pursued a double approach of reducing the resources to be provided for administrative and support services and directing these resources, together with the additional resources approved, to the technical and economic programmes.

This time, it is not possible to further reduce the resources for the support and servicing areas. However, in this Programme of Work and Budget, I propose to continue the policy, endorsed by the Conference, of channelling additional resources only to the technical and economic programmes, including the Technical Cooperation Programme. The Council has again welcomed this approach.

The proposals are the result of an active search for compromise. On the one hand, there are extensive requirements and genuine expectations for FAO action on a broad front of well-recognized problems, especially in the developing world, and on internationally agreed issues. On the other hand, I have sought to limit the request for additional resources to a minimum. My aim, in attempting to balance these conflicting factors, is a quest for consensus of all Member Nations.

Once again, a determined review of all proposals regarding posts leads me to propose a net reduction of 25 posts.

The priorities

The programme priorities that I am advocating should receive net additional resources are carefully chosen on the basis of the guidance of our intergovernmental bodies and represent a concentration on activities which FAO can do best and for which it has a clear comparative advantage. They comprise: sustainable development, crop/weather monitoring, biotechnology, crop protection, agricultural data development, policy advice, women in development, aquaculture and the Tropical Forestry Action Plan. These are also areas of work where FAO has a clear programme base of activities which require additional resources.

The Council was satisfied that the proposals are in broad accordance with the guidance received from FAO governing and advisory bodies, including Regional Conferences.

The proposals were examined in the form of the *Summary Programme of Work and Budget*, and within the scope of their mandates, by the Committee on Agriculture, the Committee on Fisheries, the Programme

and Finance Committees, and the Council. The needs and recommendations of all these bodies have been carefully examined and taken into consideration in the formulation of the full Programme of Work and Budget. There is no programme or activity which has been recommended by any of these bodies for total elimination. This is not surprising, since FAO's programmes continue to address unresolved problems, albeit dealing with different aspects, in each biennium.

The changes in priorities are amply evident from the proposed changes in resource allocation, as well as in the specific activities to be undertaken. The information provided in the *Programme Budget* down to the programme element level enhances transparency and facilitates consideration of the proposals. This was an aspect on which all the bodies which examined the *Summary* expressed satisfaction.

Individual Member Nations have naturally made suggestions for increased activities and resources in a number of programmes. Conversely, some have also provided suggestions on areas where they felt reductions and savings could be considered. These suggestions have been carefully considered. However, it must be recognized that where there is a diversity of opinion, the proposals must seek to preserve a balance which may be accepted by all Member Nations.

The proposals also reflect the close integration between the Regular and Field Programmes and the contribution of Special Action Programmes which give full expression to the catalytic effect of Regular Programme funds in mobilizing extra-budgetary resources.

Programme budget impact

Programme

All these considerations lead me to submit proposals for a Programme of Work and Budget for 1990-91 involving a nominal programme increase of US\$5.5 million, or 1 percent over the recosted budget base. Taking into account the proposed absorption of cost increases of US\$3 million (see below), the programme increase amounts to only 0.45 percent. It is however proposed that the major programmes of Agriculture, Fisheries and Forestry should receive a programme increase of 1.5 percent and the Technical Cooperation Programme a programme increase of 2.8 percent.

The proposed increase for the TCP has received particular attention in the discussions on the *Summary*. It will be recalled that the TCP received no programme increase for the present biennium. At the last Conference, regret was expressed that it had not proved feasible to increase in real terms the level of

the TCP appropriation and it was hoped that this would be done in future biennia.

Accordingly the share of the TCP in the total budget declined from 14.1 percent in 1986-87 to 12.8 percent in 1988-89. Even with the increase now proposed of US\$1 750 000, the share of the TCP in the total budget for 1990-91 will further decline to 11.8 percent.

Cost increases

The estimate of cost increases, given in the *Summary*, amounted to US\$60 million. As noted by the Finance Committee and the Council, that estimate had been made on the basis of the established methodology and been subjected to a detailed review by the Finance Committee. As also recognized by the Finance Committee, the estimate had been calculated on a conservative basis and was the best that could be made at that time.

The estimate excluded an amount of US\$3 million of the cost increases which we shall have to face in connection with expenditures on consultants, duty travel and the cost of staff upgradings effected in the present biennium. I have deliberately excluded this amount in order to contain the overall level of the cost increases, and I have not reinserted it in the revised estimate.

However, further review and updating of the cost increase estimates requires me to propose an increase of US\$16 million. Of this amount, US\$2 million is due to the impact of the General Assembly lifting the transitional measures on the post adjustment system and a further increase in the scale of pensionable remuneration. The requirements for both these factors had been indicated in the *Summary*, but could not then be costed.

The remaining US\$14 million covers the eventual results of the General Service salary survey, to be conducted by the International Civil Service Commission (ICSC), the results of which will be submitted to the Council in 1990 for approval, as well as additional costs resulting from eventual decisions of the United Nations General Assembly following the ICSC's comprehensive review of conditions of service of staff in the Professional and higher categories. These are costs which will have to be met and for which it is only normal and prudent that provision be made. (Details are provided in the Chapter which follows on the Programme Framework.)

Impact on assessments

The total budget level proposed for 1990-91 comes to US\$574 million. This proposal is as usual presented at the budget rate set by the last Conference for the current biennium, i.e. Lit.1 235 = US\$1.

The Conference will set a new budget rate in connection with the Programme of Work and Budget for 1990-91. Market exchange rates this year have fluctuated between near Lit. 1 300 to near Lit. 1 400. At a rate of Lit. 1 350 = US\$1, the effective working budget would amount to US\$557 million.

The assessments for Member Nations, however, would be calculated after taking into account estimated Miscellaneous Income of US\$12 million. The part of the effective working budget to be funded from Member Nations' contributions would thus amount to US\$545 million.

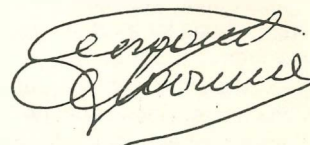
Conclusions

All the factors examined in the formulation of this Programme of Work and Budget point to the Organization experiencing renewed vigour, revived commitment and an enhanced promise of fulfilment.

I submit these proposals with the assurance that

they are responsive to the demands of Member Nations as a whole and that they represent a basis for effective action by your Secretariat in the coming biennium. I am encouraged by the Council and its subsidiary bodies which have recognized the validity of the priorities and the activities proposed.

I venture to remain confident that Member Nations will find in these proposals a basis for their renewed commitment and expression of confidence in their Organization. A consensus approval is desired by all. This consensus can, with goodwill and mutual understanding between Member Nations, be a reality. These proposals are aimed at helping Member Nations to unite in a consensus for the approval of their Programme of Work and Budget.



Edouard Saouma
Director-General

PROGRAMME FRAMEWORK

I. STRUCTURE OF THE DOCUMENT

- 1.1 The Programme of Work and Budget for 1990-91 is presented in a single volume. Budgetary estimates are indicated in the "Programme Budget" section, and are presented together with programme narratives. As directed by the Conference and Council, the Programme Budget also includes Medium-term Objectives.
- 1.2 The figures in the draft Appropriations Resolution and other budgetary estimates in this document are not strictly comparable with those in the Summary Programme of Work and Budget 1990-91 as they include cost increases. However, the same exchange rate is used, i.e. Lit. 1 235 = US\$ 1, which is the budgetary rate of exchange adopted by the Twenty-fourth FAO Conference in November 1987, for the 1988-89 Programme of Work and Budget.
- 1.3 The Programme Budget is supplemented by three Annexes:
 - Annex I, showing all programmes and budget estimates on a regional basis;
 - Annex II, showing summary estimates for 1990-91 compared with 1988-89, by major organizational unit and by object of expenditure, including cost increases, posts and organization charts; and
 - Annex III, containing summary tables covering: (i) salary and post adjustment schedules; (ii) establishment and grading of posts funded by the Regular Programme or other funds; and (iii) UN standard presentation by CCAQ, object of expenditure categories and by main source of funds.
- 1.4 This introductory section provides:
 - an overview of the main programme priorities which have influenced the biennial proposals;
 - a brief update of prospects for the field programmes;
 - an analysis of the 1990-91 budget, in particular of the financial aspects.

II. OVERVIEW OF MAIN PROGRAMME PRIORITIES FOR THE 1990-91 BIENNium

- 2.1 The Review of FAO, which will be considered by the Council and Conference in November 1989, will provide a renewed opportunity for FAO's Member Nations to assess the relevance of the objectives, roles, priorities and strategies of the Organization. The present document, accordingly, does not anticipate the conclusions of this assessment. The guiding principles for this Programme of Work and Budget have been to ensure the continuation of essential activities, coupled with the selective strengthening of specific priorities and, in the light of an evolving food and agricultural situation, programme activities to address new concerns.

Context of Programme Formulation

- 2.2 The formulation of a new biennial Programme of Work always requires numerous factors, both external and internal, to be taken into account. The breadth of FAO's mandate and its special position within the family of organizations directly or indirectly concerned with world food and agriculture issues, make this task complex. This is part of the management responsibility. Unavoidably, the detailed results of this analysis, in terms of the rationale and scope of each planned activity, cannot be presented within the confines of the Programme of Work and Budget document. Moreover, they cannot be appreciated uniquely in terms of monetary allocations and shifts of resources.
- 2.3 For instance, the forward and backward linkages of the food and agriculture sector with other sectors requires FAO to be attentive to developments in other international fora, especially those of the UN system. The structural adjustment programmes undertaken by Member Nations under the aegis of the International Monetary Fund and the World Bank and the current Multilateral Trade Negotiations (MTNs) under GATT, are prominent examples.
- 2.4 As an intergovernmental organization, FAO necessarily interacts with national policies and actions in member countries. The diverse requirements, priorities and expectations for FAO action stemming from Member Nations, have to find their way in its programme of work. These requirements, priorities and expectations are articulated during sessions of its Governing Bodies, at regional conferences and in specialized fora. Moreover, within the limits of its mandate and its intergovernmental status, FAO needs to remain sensitive to the aspirations and the economic and social problems of rural communities worldwide. It is the essence of food and agriculture issues that this guidance is far from being harmonious or unambiguous.
- 2.5 In addition, the Organization is expected to remain at the cutting edge of evolving technologies and to reflect widely recognized cross-sectoral concerns (sustainability, environmental protection, social equity, etc.) in its activities. The advice of specialist bodies is regularly sought in this regard, and is generally reflected in shifts of emphasis in relevant areas.
- 2.6 As importantly, it is incumbent upon programme managers to select and design future activities with due account of past and current achievements, the comparative advantages of FAO, a realistic assessment of expected impact, and the lessons from evaluation. This condition is not specific to FAO programme managers. Among the more evident mechanisms are the interdepartmental working groups to address problems cutting across sectoral boundaries; the management review meetings at various levels to assess the value and internal consistency of proposed activities; and the consultative procedures aiming at the distillation and reconciliation of recommendations from FAO governing and advisory bodies, through their wide circulation to and comments by concerned staff. The less visible mechanisms include the constant interactions of FAO staff with government officials, the formal and informal contacts with outside experts and institutions, the experience gained through the Field Programme and the synergy which is the hallmark of a multidisciplinary secretariat.

- 2.7 This process is increasingly facilitated by further progress in computerization, which permits better quantification of resources in relation to outputs and more accurate monitoring of programme shifts and changes.

Management Guidance and Intergovernmental Reviews

- 2.8 In effect, in his instructions to FAO units inviting submission of proposals for the 1990-91 biennium, the Director-General requested programme managers "to take a fresh look at all activities and programmes, reassess their relative strengths and weaknesses, absorb the lessons provided by evaluation and continue to ensure that FAO efforts are complementary to those of others". He further stressed that the aim of the programme budget-formulation exercise was to ensure the most effective and economical utilization of the resources at FAO's eventual disposal.
- 2.9 Accordingly, areas of high priority had to be clearly described and justified, along with an indication of the level of additional resources which would be necessary to have an impact. Conversely, proposals had to include a description of the lower priority areas in order to accommodate proposals for increase. An explanation of the impact of reduced resources in each selected area proposed for lower priority had to be given including, where possible, an indication of who - governments, other organizations, other partners in development - and which geographical areas would be affected by the proposed reductions.
- 2.10 Detailed and fully costed proposals were submitted and reviewed at departmental meetings chaired by the Director-General. A preliminary indication of the main programme priorities for 1990-91 was given in the Outline submitted to the Joint Session of the Programme and Finance Committees, held on 30 January - 1 February 1989.
- 2.11 The Director-General's proposals were further elaborated in the Summary Programme of Work and Budget, which was extensively discussed in its entirety or parts thereof, by the Committee on Fisheries, the Committee on Agriculture, the Programme and Finance Committees and by the Council in June 1989. The present Programme of Work and Budget document reflects, to the maximum extent possible, the views and recommendations of these Bodies.

Programme Priorities

- 2.12 Within the framework of FAO's medium-term objectives, the selection of priorities for 1990-91 necessarily reflects the potential availability of resources and the restraint placed on net increases under the Regular Budget. The programme of work also aims at ensuring complementarity with the work of other organizations, while respecting FAO's roles and mandate. The eventual extra-budgetary resources foreseen in this biennium to support specific activities have constituted an important factor of programming and, in several instances, have permitted easing pressure on Regular Programme demands.
- 2.13 The results of this intensive review have led the Director-General to propose that the entire programme increase be directed to Chapter 2: Technical and Economic Programmes, and Chapter 4: Technical Cooperation Programme. The small apparent increase under Chapter 5:

Support Services is only due to internal shifts based on a more accurate method of distributing staff costs over programme activities.

- 2.14 Under Chapter 2, the following priority areas, in particular, are proposed to receive increased allocations:

- Biotechnology;
- Agricultural data development;
- Sustainable development;
- Policy advice;
- Women in development;
- Crop/weather monitoring;
- Crop protection;
- Aquaculture; and
- Tropical Forestry Action Plan.

- 2.15 The last four areas in the above list - which does not imply any order of preference - are well covered in the programme narratives under Programmes 2.1.2 and 2.1.4, Programme 2.1.2, Programme 2.2.2 and Programme 2.3.1 respectively. There is, therefore, no need to duplicate the information on their rationale and scope in this introductory section of the Programme and Work and Budget document. The first five are, however, cross-sectoral priorities which merit a general presentation transcending the sectoral programme narratives.

- 2.16 The following general presentations cover inter alia the programme areas of relevance as well as in-house coordination arrangements.

- Biotechnology

- 2.17 Over the last few years, the potential of biotechnology to influence and benefit agricultural development has been widely recognized. Biotechnology is expected to lead to novel developments in animal and plant production and to provide a variety of new opportunities in food technology.
- 2.18 A number of new products are already the result of the application of biotechnology. These include enzymes, food additives, disease-free plant material, biocontrol agents, animal growth hormones and vaccines, diagnostic reagents for plant and animal diseases and new plant varieties and methods of animal reproduction.
- 2.19 As usual with new developments, biotechnology is progressing at a faster pace in the industrialized world. Consequently, its application is currently strongly directed towards intensive agricultural production systems and transformation processes. In addition, research on biotechnology is increasingly dominated by private industry.
- 2.20 In the light of the above, the requirements for FAO's assistance are greatest in the developing world. FAO needs to assess realistically the potentials and limitations of this new technology for agricultural production in developing countries (including forestry and fisheries). However, the short-term benefits of biotechnology must not be overstated. The objectives are to contribute to increased yields, stabilized production, improved ecological sustainability, food quality, as well as reduced losses. Member countries are to be assisted in initiating activities in those areas that hold the greatest promise for sustained progress under specific socio-economic conditions.

- 2.21 As biotechnology can be expected to provide new opportunities to solve the problems of marginal areas to achieve sustainable development, another focus of FAO's activities is to promote biotechnology to meet the small farmer's needs.
- 2.22 In the longer term, it will also be incumbent upon FAO to assess and report the global implications of widespread uses of biotechnologies, as these may distort established patterns of comparative advantage in food and agricultural production and could displace traditional commodities.
- 2.23 The main components of FAO's involvement with biotechnology are envisaged as follows. In the first instance, FAO will assist member countries to assess their requirements and to mobilize resources for institutional and manpower development. It will support cooperation networks to make optimal use of scarce manpower resources. In addition, FAO will encourage the more advanced biotechnology programmes in the developed countries to share their expertise and capabilities with the developing countries. This poses a particular problem with regard to the sharing of results obtained in the private sector. FAO, in close cooperation with other concerned institutions, will provide a forum to review and discuss various biotechnology issues as they relate to food and agriculture. It will monitor developments, including those related to the privatization of biotechnology and genetic information, such as patenting of genes and living plants and animals and the release and licensing of the products of biotechnology. FAO will develop a code of conduct for biotechnology and plant genetic resources.
- 2.24 FAO's biotechnology activities are carried out under various programmes and sub-programmes. Overall coordination is achieved through the Interdepartmental Working Group on Science and Technology. Supplementary informal working arrangements are established to ensure effective cooperation between the various units concerned. The detailed activities are described under the various programmes and sub-programmes. These are, in particular:

Programme 2.1.2: Crops
Sub-programmes 2.1.2.1, 2.1.2.2, 2.1.2.3, 2.1.2.4 and 2.1.2.6;

Programme 2.1.3: Livestock
Sub-programmes 2.1.3.1, 2.1.3.2, 2.1.3.3 and 2.1.3.6;

Programme 2.1.4: Research and Technology Development
Sub-programmes 2.1.4.1, 2.1.4.2 and 2.1.4.3;

Programme 2.3.1: Forest Resources and Environment
Sub-programmes 2.3.1.2.

- Agricultural Data Development

- 2.25 The collection, analysis, interpretation and dissemination of information relating to nutrition, food and agriculture, including forestry and fisheries, have been actively pursued since FAO's inception. The priority on agricultural data development is therefore of long standing.

- 2.26 In the next biennium, however, this priority takes added significance through the planned improved management of the existing FAO data banks through the establishment of a corporate database and systems, i.e. the World Agricultural Information Centre (WAICENT) project.

a) Rationale

- 2.27 Over the years, FAO has accumulated a unique wealth of information related to food, agriculture, fisheries and forestry in more than 40 data banks, established by several divisions according to respective sectoral concerns and priorities.
- 2.28 Although this accumulated information is highly valued by a wide range of users, some problems are experienced:
- part of this information, for which there is high potential interest, is not accessible to external users; internal users themselves may not always be fully aware of their coverage;
 - difficulties in accessing existing databases are due to the not fully compatible hardware and software environments under which they operate;
 - some redundancy and/or inconsistency subsists regarding data structures, codes, classifications, processing methods and quality standards, etc.;
 - some of the data banks are not regularly updated.
- 2.29 After careful study of these and other issues, it was decided to develop a consistent corporate data system - the World Agricultural Information Centre (WAICENT). This corporate data system will entail common data management standards covering classifications and coding, data quality, statistical models, documentation methods, uniform policies for security and access, data referral rules, and timeliness and currency of data.
- 2.30 These standards are to be upheld by the "working systems" (i.e. the component data systems) to ensure overall quality standards for WAICENT and an efficient technology environment. In this context, the applications generating data of potential corporate interest are being constantly reviewed.
- 2.31 For the purposes of WAICENT, corporate information is defined as "information collected, analyzed, interpreted or disseminated by the Organization that is of general interest to either internal or external users". WAICENT will thus include both statistical data and textual information.

b) Strategy

- 2.32 The development of a truly corporate data system is a complex undertaking of a long-term nature. It involves most FAO technical units, either as providers or as users of information. Conceptual developments will need to take account of resource limitations. Moreover, the enhancement of existing data will need to go hand-in-hand with the reflection of emerging requirements for additional information (e.g. women in development, environment).

- 2.33 The Organization has selected a "Decentralized Process Model" (working/feeder systems) to support the Centralized Corporate Database. This implies decentralized but coordinated data collection, input, editing and validation in the "working systems" which would "pass" data of corporate value to WAICENT for central storage and dissemination.
- 2.34 Analytical applications would be carried out either centrally or locally on "downloaded" corporate information and could themselves generate derived information (e.g. socio-economic and other indicators) of corporate relevance.
- 2.35 Some specialized applications (e.g. the FAO Geographic Information System) could be considered to have corporate characteristics but, because of their particular nature, which makes them difficult to integrate, will remain outside WAICENT. In such cases, appropriate coordination will be ensured.

c) Organizational arrangements

- 2.36 The corporate data system requires close coordination within the Organization, as well as adequate working relationships with other information sources within and outside the UN system, in order to reduce, to the minimum, redundancy and inconsistency of information obtained from various sources.
- 2.37 The main coordinating responsibility rests with the recently-established Interdepartmental Working Group (IDWG) on the World Agricultural Information Centre. This Group is responsible for establishing standards and policies relating to data content, data collection, coding and classification, dissemination, application of statistical models and methods, and quality. The IDWG has created a number of sub-groups to deal with specific aspects of data management. In addition, the Information Systems and Resources Committee (ISRC), which is responsible for advising top management on policy issues in relation to all FAO information systems and resources, will supervise the development of the corporate data system.
- 2.38 The "day-to-day" implementation of WAICENT is the responsibility of the Statistics Division (ESS) in cooperation with concerned divisions, particularly those which generate information to the corporate system. Divisional Data Coordinators have been appointed for this purpose. Coordination with other UN organizations is ensured through participation in the work of several inter-agency bodies such as the Advisory Committee for the Coordination of Information Systems (ACCIS) and the ACC Sub-committee on Statistical Activities.

d) Implementation

- 2.39 The Statistics Division has gained significant experience in the development of the AGROSTAT Information System. AGROSTAT's purpose was to facilitate access of internal as well as external users to FAO data, including those where practical problems could be experienced in giving direct access to the specific working systems (e.g. ICS, FISHDAB, etc.). AGROSTAT contains a copy of FAO data which are created by other computerized applications of the four technical departments. In addition, it is also the repository of data from external sources such as the ILO, the World Bank and the United Nations.

- 2.40 AGROSTAT, in many ways, meets the criteria of a corporate database. However, AGROSTAT is not backed by a formal institutional infrastructure which, in turn, means that it cannot make demands on data producers. Once data is on AGROSTAT, the original data producers are no longer concerned with meeting external or internal demands for copies of files, etc.. AGROSTAT is presently available to internal and external users either on-line or in suitable computer-readable form.
- 2.41 AGROSTAT, moreover, does not benefit from modern relational data management techniques (database management systems - DBMS). Data is therefore not independent of the programmes which process it; there is no active data dictionary; all programmes are written in COBOL, PLI and other third generation languages instead of the much more productive application generators which accompany a DBMS.
- 2.42 Building on this experience, the implementation of WAICENT will be based on a phased functional approach. The development of codes, classifications, definitions, processing and quality standards, statistical methods, the selection and customization of an efficient software and, to a lesser degree, hardware environment for the corporate data system and even more for working systems, will require mobilization of available expertise in the Organization, as well as considerable external consultancy assistance. Work is already under way mainly through the above sub-groups of the IDWG/WAICENT. It is expected that the standard setting work will be completed by mid-1990.
- 2.43 The operation of the corporate (central) database and the working systems, based on efficient software and hardware technology, is tentatively planned to be completed by the end of the biennium. Some activities have already started in this regard and achievements so far are as follows:
- a version of AGROSTAT for external communication called AGROTEL has been designed, developed and tested successfully;
 - tests have shown that the AGROSTAT software is also suitable for the dissemination of non-statistical information.
- 2.44 This phase will require flexibility in terms of timing, depending upon the availability of a suitable DBMS, as well as the necessary resources.

e) Other actions

- 2.45 Beyond the WAICENT project, the priority on agricultural data development will cover other actions in 1990-91, e.g. strengthening of AGRIS/CARIS (cf Sub-programme 2.1.4.3), ASFIS (cf Sub-programme 2.2.1.1), remote sensing data (cf Sub-programme 2.1.4.4), etc..
- 2.46 Also, the development of FAO's Geographic Information System (GIS), started in the 1986-87 biennium, will continue in 1990-91. During 1988-89, emphasis was, to a large extent, on developing and operationalizing the GIS hardware-software environment. In 1990-91, this system will be used to consolidate and update FAO's computerized geographic databases and will be applied to multidisciplinary studies at various levels on such aspects as land degradation hazards, forest productivity zoning and potentials for aquaculture development. The

capability and expertise which have been developed gradually over the last five years will permit increased assistance to national institutions and support of the GIS components of FAO's field projects. These activities will continue to be guided by the Interdepartmental Working Group on Land Use Planning.

- Sustainable Development

a) General remarks

- 2.47 A report on FAO's policies, programmes and activities related to sustainable development was considered by the Ninety-fourth Session of the FAO Council in November 1988 (CL 94/6).
- 2.48 The following operational definition of sustainable development was used:
- "Sustainable development is the management and conservation of the natural resource base, and the orientation of technological and institutional change in such a manner as to ensure the attainment and continued satisfaction of human needs for present and future generations. Such sustainable development (in the agriculture, forestry and fisheries sectors) conserves land, water, plant and animal genetic resources, is environmentally non-degrading, technically appropriate, economically viable and socially acceptable."
- 2.49 The above report underlined that FAO had long been concerned with many individual and connected components of "sustainable development". Article I of FAO's Basic Texts includes among the functions of the Organization "the conservation of natural resources and the adoption of improved methods of agricultural production". Moreover, the objectives set out in the Preamble to FAO's Constitution: "raising levels of nutrition and standards of living", "securing improvements in the efficiency of the production and distribution of all food and agricultural products", and "bettering the condition of rural populations", all contribute to sustainable development. Also, most of the long-term goals identified under Major Programme 2.1: Agriculture, in the present Programme of Work and Budget, accord more or less directly with the concept of sustainable development.
- 2.50 FAO's action takes place under both the Regular and Field Programmes in a continuum. It involves all technical departments in a more or less direct manner.
- 2.51 The "building blocks" of FAO's contribution to sustainable development may be appreciated by way of representative examples. For enhanced clarity, the following components are grouped under the same functional headings as those used in document CL 94/6.

b) The main components of FAO's action

- 2.52 Policy and planning: Appropriate policies are the prime basis of sustainable development. In this regard, FAO has established a number of policy instruments, including the World Soil Charter, the International Undertaking on Plant Genetic Resources, the International

Code of Conduct on the Distribution and Use of Pesticides, the Plan of Action of the World Conference on Agrarian Reform and Rural Development, the World Food Security Compact, the Strategy and Programmes of Action for Fisheries Management and Development, and the Tropical Forestry Action Plan, which largely guide its policy advice to member countries.

- 2.53 Natural resource conservation and management: The conservation and management of renewable natural resources is supported through the following activities: International Scheme for the Conservation and Rehabilitation of Africa's lands; assistance to member countries in the development of national soil conservation policies; guidelines and technical manuals for evaluating sustainable land potentials and on the management of salt-affected soils; environmental management for controlling vector-borne diseases; safe use of wastewater for irrigation; assessment and management of inland and marine fishery resources; forest management in arid zones and control of desertification; watershed management; prevention and control of bush fires; game farming and wildlife management and utilization; introduction of environmental impact assessment procedures for field projects; and development of a comprehensive approach for energy assessment and planning for agricultural and rural development.
- 2.54 Genetic resources conservation: The loss of biological diversity, especially in the humid tropical regions, is being actively combatted. Based on the International Undertaking on Plant Genetic Resources, national, regional and international genetic resources conservation programmes are being developed in collaboration with the IBPGR. The conservation of animal genetic resources is being assisted through the establishment of gene banks. Other activities include: the promotion of traditional food crops and under-exploited food crop varieties which would also help to conserve genetic resources; the protection of fish genetic resources through a Code of Practice for the Introduction of Aquatic Species currently being negotiated by the FAO Regional Fisheries Commissions; forest genetic resources in situ conservation under the umbrella of the FAO Panel of Experts on Forest Gene Resources; assistance in protected area management and the sustained utilization of wildlife.
- 2.55 Production systems management: Encouragement to production systems which balance use and conservation under different agro-ecological conditions; an interdepartmental working group is dealing with issues related to agroforestry; under Sub-programme 2.1.1.2, a new activity on analysis and development of sustainable farming systems, will be initiated; crop diversification is supported based on indigenous mixed-cropping systems; studies are being conducted on the management of agricultural residues including their potential as energy sources; integration of aquaculture in selected farming systems; promotion of energy-efficient fishing boats and fish processing methods; support to agroforestry systems in mountain and peri-urban areas; silvo-pasture management; development of appropriate forest industries; enhanced role of women in small-scale forest-based enterprises through the community forestry programme, contributing to improved resource management.
- 2.56 Technology development and application: Support to biological nitrogen fixation; monitoring of pesticide levels and integrated pest management for crops such as rice, cotton and vegetables; promotion of

technologies on new and renewable sources of energy such as gasification, biogas, solar energy, draught animal power, improved stoves, agricultural residues and wind energy.

2.57 Pollution control: Implementation of the International Code of Conduct on the Distribution and Use of Pesticides as the accepted framework for the safe use of pesticides, through training, technical assistance and guidelines; introduction of non-polluting tsetse fly control techniques; collaboration with IAEA in regard to radionuclide contamination and with WHO and UNEP in the International Food Contaminants Monitoring Programme; analysis and mitigation of pollution impacts on marine fisheries and aquatic organisms also requiring continuing collaboration between FAO, UNEP and other UN agencies.

2.58 Socio-economic aspects: Monitoring of rural poverty and formulation of policies and programmes for poverty alleviation, through land reform, income generation and specific attention to rural youth and rural women; monitoring of nutrition levels and welfare standards, including access by the poor to food; the People's Participation Programme, including participatory upland conservation and small-scale forest enterprises for local employment and income generation and community forestry development.

2.59 Information transfer and exchange: Extensive training and information dissemination is carried out on the technical issues related to sustainable development, including numerous technical publications and audiovisual aids. The Geographic Information System (GIS) contributes to improved land-use planning and decision-making. The Environment and Energy Bulletin draws on information produced by the various FAO technical divisions and is oriented toward environmental management and sustainable development. The transfer of conservation technologies is assisted through the Forest and Wildlands Conservation Information System.

2.60 New sub-programme: In addition to these diverse components, a new sub-programme will cover some aspects of sustainable development under the title "Sustaining Resource Potentials" and will include policy advice, demonstration of sustainable practices, and studies on the impact of climate change. The rationale is described in the narrative under Programme 2.1.1: Natural Resources.

c) In-house and external coordination

2.61 As sustainable development requires multisectoral and multidisciplinary interventions, it is approached in an integrated manner. FAO's work on environment in relation to sustainable development is coordinated through an Interdepartmental Working Group (IDWG) on Environment and Energy, in which the relevant departments are represented. Other mechanisms include the IDWG on Land-use Planning, the Interdepartmental Committee and Interdivisional Working Group on Rural Development, the IDWG on Women in Development and the IDWG on Training. These inter-divisional and interdepartmental groups will continue to operate as multidisciplinary mechanisms through which the concept of sustainable development can be further developed and translated into operational activities for Regular Programme and extra-budgetary financed programmes and projects.

- 2.62 FAO collaborates closely with UNEP on environmental issues, mainly through joint programmes and project activities, within the framework of the second System-wide Medium-term Environment Programme. It also collaborates with Unesco in the Man and the Biosphere Programme and works closely with NGOs in the field of environment, particularly with the International Union for the Conservation of Nature and Natural Resources (IUCN). FAO also cooperates with other agencies of the UN system (WHO, WMO, ILO and UNDP) in the many individual subject-matter areas relevant to sustainable development.

- Policy Advice

a) Definition

- 2.63 Consistent calls have been made for FAO to strengthen its policy advice activities. Policy advice, however, is an extremely broad term which, if stretched to the extreme could encompass, directly or indirectly, most FAO activities, both under its Regular and Field Programmes. Therefore, there is a good case for observing a working definition of policy advice in the FAO context.
- 2.64 Chapter 11 of the Review of the Regular Programme 1988-89 covers FAO's policy and planning support to member countries, based on the following "narrow" definition: "policy advice and planning support" includes only those activities, including FAO's own choice of intervention, which have a direct bearing on the decision-making process of member countries in arriving at alternative development options and strategies.
- 2.65 Two additional concepts are often associated with "policy advice". The first is "analysis" which is the process of examining minutely the constituents of a policy issue; and the second is "planning" which is the organized set of actions towards given objectives. Clearly, policy analysis is an important requisite for policy advice. Planning, on the other hand, may proceed within a given policy framework but is not necessarily part of policy-making or of policy advice. In practice, however, the policy-maker is often concerned with a continuum of activities from the analysis of policies and the gathering of information for this purpose, to policy implementation and the planning process that follows.
- 2.66 For operational purposes, it may be useful to distinguish a broad FAO advisory "function". In effect, it is abundantly clear that to provide meaningful policy advice, FAO must possess sufficient and up-to-date knowledge. It takes time and resources far in excess of those needed to render the advice itself to acquire and maintain the necessary knowledge. Such upstream activities make the policy advisory function much broader than the specific act of providing policy advice. Similarly, downstream activities such as the analysis of existing policies and issues with a view to redesigning development policies and translating them into plans, also contribute to the policy advisory function.
- 2.67 Thus, the policy advisory function would include:
- gathering basic data and information (the acquisition of knowledge) that may underlie policy advice but which has not been gathered with the specific objective of addressing policy issues. This covers a

very wide range of FAO activities not only in the area of "statistics", but also resource assessments, soil and hydrological surveys, nutrition or food consumption surveys, etc.;

- the provision of technical information and advice within a given or existing policy framework. This covers another broad range of FAO's largely technical activities such as in pest control, animal husbandry, fish catch techniques, forest industries, etc.;
- the similarly wide range of activities "downstream" from policy-making itself which may be considered under the rubric of "implementation" of the policies, plans and programmes that have been designed. Thus, much of FAO's operational activities associated with rural development, food security and agricultural and natural resource development, form part of the broad FAO advisory function.

2.68 Policy advice is, however, taken as a more restricted core of activities, as follows:

b) Categories of policy advice

2.69 This core of activities may be conveniently divided into three categories: (i) global or regional sector studies, plans of action or policy issue studies; (ii) direct policy advice to country or region or sub-region; and (iii) assistance to enhance the policy analysis and planning capability of a country, region or sub-region.

2.70 In respect of the first category, the procedures used by FAO to develop policy positions or overviews of global or regional issues, are well known. A careful assessment of the policy issue is provided in the form of a document or set of documents, followed by a thorough review and discussion at meetings of experts or representatives of Member Nations. There are many examples of such studies and the plans of action they may give rise to, such as most recently: "the potentials for agricultural and rural development in Latin America and the Caribbean", which was discussed at the Twentieth FAO Regional Conference in October 1988.

2.71 Activities of direct policy advice are to meet requests for assistance in formulating or reformulating food, agriculture or rural development policies, prior to the approval of a multi-year development plan, or because sector performance has deviated significantly from expectations, or because government administration has changed. In recent times, there has been an increase in requests from member countries to help prepare food security strategies, to prepare for or to participate in policy review meetings with donors, to monitor and assess the impact on agricultural performance and rural welfare of stabilization or structural adjustment programmes, or to help prepare for negotiating the terms and conditions of such programmes with financing agencies.

2.72 The provisions of direct policy advice at the national or sub-regional level is a delicate task. FAO must be prepared to provide such advice on matters that come within its mandate and within the limits set in the approved Programme of Work. This is discharged through short-term

policy review missions, seminars and workshops, or longer-term field projects. The latter include the traditional planning assistance projects, which inevitably in practice include policy analysis and may move into the formulation of agricultural policies and the advice associated with it.

2.73 The following list provides an illustration of FAO's direct policy advisory activities, sometimes undertaken in association with other agencies such as the World Bank:

- agricultural sector strategies, policies and plans for individual countries or sub-regional groups;
- food security strategies and policies, generally under the umbrella of the Food Security Assistance Scheme (FSAS);
- nutrition planning and policy advice;
- commodity policy advice and planning;
- rural development and agrarian reform, through WCARRD follow-up inter-agency missions to countries;
- agricultural products and inputs price and marketing policies, including agro-industrial policies and development plans, and the provision of credit and financing services;
- policy aspects of the integration of women in development.

2.74 The third category includes training for policy analysts and category (ii) field projects that provide direct support to policy analysis units and which include a more or less formal training component. In practice, the activities mentioned under category (ii), such as short-term missions or workshops/seminars, may include a training component, and contribute to an enhanced capacity for policy analysis and formulation.

2.75 It is hoped that the above categorization will facilitate understanding of the policy advisory role of FAO. In this connection, it is important to recall that the activities in one category are linked to those of another. For example, the policy documents prepared for meetings of FAO Governing Bodies, seminars or workshops provide a tested foundation for the policy advisory work at national and sub-regional levels. They also provide the framework for advice given by FAO staff and make an important contribution to the training programmes for national policy analysts and advisers. The policy studies and issues papers also stimulate requests for FAO's assistance from member countries or their sub-regional groups, which may lead to short-term policy review and advice missions, seminars or workshops, or to longer-term field projects. In turn, the policy review and advice missions frequently lead to longer-term policy advisory projects in the field. In addition, the global or regional sector or sub-sector policy studies also provide a basis for the provision of advice and assistance to member countries in the context of negotiation of stabilization and structural adjustment programmes, or to prepare for policy review meetings with donor agencies.

c) Activities in 1990-91

2.76 The policy advisory action of FAO is essentially demand-driven. Ex post facto reporting on specific activities is more meaningful than attempting to forecast them except in the aggregate. FAO sub-programmes most concerned are: Sub-programme 2.1.1.1: Assessment and Planning, Sub-programme 2.1.1.2: Farming Systems Development, Sub-programme 2.1.1.3: Soil Management and Fertilizers, Sub-programme 2.1.1.6: Sustaining Resource Potentials, Sub-programme 2.1.2.6: Food and Agriculture Industries, Sub-programme 2.1.4.5: Environment and Energy, Sub-programme 2.1.5.2: Agrarian Reform and Land Settlement, Sub-programme 2.1.5.3: Rural Institutions and Employment, Sub-programme 2.1.5.4: Women in Agriculture and Rural Development, Sub-programme 2.1.5.5: Marketing, Sub-programme 2.1.5.6: Credit, Sub-programme 2.1.6.4: Nutrition Policy at Country Level, Sub-programme 2.1.7.2: Situation and Outlook, Sub-programme 2.1.8.1: Global Perspective Studies, Sub-programme 2.1.8.2: Agricultural Policy Analysis, Sub-programme 2.1.8.3: Commodities Policies and Trade, Sub-programme 2.1.8.4: World Food Security, Sub-programme 2.1.8.5: Agricultural Planning Assistance, Sub-programme 2.2.3.1: Fisheries Policy and Planning, Sub-programme 2.3.1.5: Tropical Forestry Action Plan, Sub-programme 2.3.3.1: Forestry Training and Institutions, and Sub-programme 2.3.3.2: Investment Planning and Statistics.

2.77 The descriptions of planned contributions to FAO's policy advisory role in terms of the three categories mentioned above are provided under the appropriate programme elements. In addition, it may be useful to note some trends regarding the third category which will have implications in the coming biennia. These trends are as follows:

- incorporation of more formal training components into planning assistance projects;
- greater emphasis on practical tools of policy analysis, away from conventional techniques of project appraisal;
- development of computerized planning and modelling software to explore the impacts or results of various policy options as policy analysts in developing countries become increasingly familiar with computers and personal computers more widely available.
- greater attention to institution-building in member countries.

- Women in Development (WID)

a) Background

2.78 FAO's attention to the role of women in development dates back to its foundation. Over the years, the FAO Conference and Council have adopted a series of resolutions which provide a set of mandates concerning the integration of women in agricultural and rural development. In addition, the Declaration of Principles and Programme of Action adopted in 1979 by the World Conference on Agrarian Reform and Rural Development (WCARRD), stressed that the integration of women in development was a prerequisite for the success of rural development plans and programmes.

- 2.79 Since 1979, there has been a continuing effort to translate WCARRD principles into concrete programmes at country and regional levels. The Second Progress Report on the WCARRD Programme of Action, presented to the Twenty-fourth Session of the FAO Conference in November 1987, indicated that although there was an increasing recognition of the vital importance of rural women's contributions to food security, the implementation of significant nationwide policies and programmes to ensure rural women's full participation in development was not yet widespread.
- 2.80 In response to this assessment, the Conference called for a plan of action for the integration of women in development. This Plan of Action was submitted to and unanimously approved by the FAO Council in November 1988.

b) Thrust of the Plan of Action

- 2.81 The Plan's declared objective is to bring about change in order to ensure that, in FAO's sphere of responsibility, women are accorded equal rights and opportunities and that their potential contributions are put to full use by national societies. The strategy is to work for this at three levels: (i) the body of knowledge on women in agricultural development; (ii) policies; and (iii) concrete programmes.
- 2.82 Substantively, the focus of FAO activities should be to support women in their multiple roles, particularly as agricultural producers and entrepreneurs. With this aim, future activities need to give greater recognition to women's special requirements for income-producing activities and control of income; for extension services and training opportunities; and for the introduction and development of technologies and other means to ease their burden and to increase their productivity and access to markets.
- 2.83 The Plan is basically a comprehensive and broad sweeping charter. It identifies measures in four spheres: the civil, the economic, the social and the decision-making. For each of these spheres, it proposes a wide range of activities.
- 2.84 In the civil sphere, efforts should be directed toward improving women's access to land, credit and membership in development organizations and cooperatives. As a means to this end, the Plan foresees FAO advisory and training services to countries that desire to bring national legislation into conformity with international standards.
- 2.85 In the economic sphere, the measures foreseen aim at enhancing women's role in the agricultural and rural economy and at maximizing the benefits that economic activities provide to women. FAO is to contribute to raising the capacity and productivity of rural women and expanding their economic opportunities.
- 2.86 In the social sphere, activities are to be geared, in the first place, to improvement of rural women's access to education and to modernization of national and local agricultural and home economics training. The integration of population considerations and of nutritional components in field projects is also to be given emphasis.

2.87 In the decision-making sphere, efforts are to concentrate on improvement of women's participation in rural institutions and people's organizations. In this respect, the Plan envisages providing leadership and management training to women in order to give them the skills to identify and to ask for tailored technical advice, extension services and land reform measures.

2.88 To carry out these actions, the Plan of Action also reviews the instruments and tools needed and provides guidelines on: (i) the collection and utilization of statistics and indicators; (ii) the types of training and public information; (iii) the interaction with other UN agencies and Member Governments; and (iv) the delivery of technical assistance to the benefit of farmers.

c) Implementation in the 1990-91 biennium

2.89 The Plan of Action is meant to cover the medium term, i.e. at least three biennia. The main priorities identified in the short term are: (i) FAO staff training; (ii) policy advice to member governments; (iii) preparation and promotion of WID guidelines; (iv) strengthening of project development and monitoring; (v) reorientation of home economics and agricultural curricula; and (vi) collection and analysis of gender-specific data. These priorities cut across technical sectors and require that all technical units concerned participate in the conception, preparation and implementation of selected activities. An overview of these activities is provided below.

2.90 FAO staff training: The aim of training activities is to permit fuller understanding by FAO staff of the concerns of women in agriculture and integrating gender issues in planning. The training programme will use a mix of methods including case studies based on project documents from various FAO technical units. WID trainers will be assisted by a core group of resource persons to be drawn from representatives of technical divisions. Additional WID specialists from outside will provide expertise on selected issues. Divisional representatives will also assist in needs assessment and the provision of material in specific technical fields.

2.91 Policy advice to member governments: Policy advice is to be conveyed either on a sub-sectoral basis i.e. addressed to a technical government agency, in which case this is usually part of the concerned FAO unit's overall programme (e.g. women's access to agricultural credit or to higher agricultural education), or in a multidisciplinary context, in which case various technical units are to develop a policy or programming package jointly. Examples of the latter are advice regarding food security, price policies, rural development, agricultural sector planning etc..

2.92 It is also essential to develop the WID capability in key ministries. FAO will, in particular, assist Member Governments in building and strengthening the technical capacities of women's programmes in ministries of planning, agriculture and rural development.

2.93 Preparation and promotion of guidelines and manuals: Guidelines and manuals are necessary to help decision-makers, advisers and technical assistance staff at the national and international level, to better integrate WID concerns in policy and programme development, implementation and evaluation. The development of such tools will be given special emphasis, for instance in fisheries, forestry, plant

production and protection, in particular in regard to horticulture, seed selection and integrated pest management, and water development and management. A manual on the collection of statistics on women is also planned in Sub-programme 2.1.7.1: Statistical Processing and Analysis and Sub-programme 2.1.7.4: Statistical Development. Assistance in the application of guidelines is given by Sub-programme 2.1.5.4: Women in Agriculture and Rural Development.

- 2.94 Strengthening project development and monitoring: The inclusion of gender considerations and WID concerns in the planning, implementation, monitoring and evaluation of projects merits particular attention. Improvements can be achieved by such means as clearer identification of beneficiaries, the disaggregation of data by sex, the inclusion of WID specialists in formulation missions, the anticipation of obstacles to women's participation, the systematic review of gender-specific pipeline projects, etc. Checklists will be developed for this purpose. While the two-pronged approach of (1) specific projects or components for women, and (2) integrating women into the mainstream of projects will be maintained, more emphasis will be given to the latter, i.e. the inclusion of WID concerns in mainstream project activities related to the economic and technical aspects of agricultural production, forestry and fisheries. The Interdepartmental Working Group on Women in Development, the various divisional focal points, and the WID core groups established in the Fisheries and Forestry Departments, the Land and Water Development Division (AGL), the Plant Production and Protection Division (AGP), the Commodities and Trade Division (ESC), the Investment Centre (DDC) and the Field Programme Development Division (DDF) will play their respective parts to include WID concerns from the initial project formulation stages to evaluation. The sub-programme on dairy development will follow up on identified successful pilot projects for women that may be replicated.
- 2.95 Reorientation of home economics and agricultural curricula: Home economics and agricultural extension workers are the main change agents for agricultural and rural development at grassroots and project levels. The redesign of home economics and agricultural curricula in training institutions is therefore an important activity. Sub-programme 2.1.5.4 and Sub-programme 2.1.5.1.1: Agricultural Education, Extension and Training will be coordinating this task with contributions from concerned technical units. This will enable extension workers of both sexes to extend appropriate advice and training to rural farmers, especially women, based on their real needs.
- 2.96 Collection and analysis of gender-specific data: In order to improve the basis for policy-making and the design and implementation of agricultural and rural development programmes and projects, it is necessary to improve knowledge on gender issues and women in development. Efforts will be intensified throughout FAO to improve information on women in agriculture and to carry out studies on women's participation in agriculture and access to rural services and technology. Some specific activities are: the development of statistical indicators to analyze data by gender in the ESS and ESP Divisions; the analysis by gender in the 1990 World Census of Agriculture and in the Sixth World Food Survey; publications on women and structural adjustment; research on legal situations of women in selected Latin American and African countries; case studies on irrigation schemes; training materials on women in horticulture; research on women and fertilizers; studies on women and forestry; training materials for extension that include WID concerns; and a study on technological change in agroprocessing and its impact on women.

d) Operational arrangements

- 2.97 An increased budgetary allocation is being proposed for 1990-91 in favour of Sub-programme 2.1.5.4, in addition to inputs from other technical units, although these additional inputs are not always visible at the programme element level. Evidently, the need for extra-budgetary support is great and specific proposals will be elaborated for this purpose.
- 2.98 The Women in Agricultural Production and Rural Development Service (ESHW) will ensure overall coordination of the implementation of the Plan of Action under the aegis of the Interdepartmental Working Group on Women in Development. As mentioned above, focal points and core groups have been or are being formed in a number of units. These will ensure a common focus and will be called on to contribute to multidisciplinary efforts.
- 2.99 Coordination with other UN agencies dealing with other aspects of rural development, such as health, labour, population, education, etc. will be ensured. For this, a number of mechanisms exist within the United Nations system. These are: (1) the System-wide Medium-term Plan for Women in Development (SWMTP/WID), in which FAO has been entrusted major responsibility for several sub-programmes; (2) the Inter-agency Meetings on Women in Development which are held annually in connection with the sessions of the Commission on the Status of Women (CSW); and (3) the Administrative Committee on Coordination (ACC) Task Force on Rural Development, of which FAO is the lead agency.

Other Aspects of the Proposals

- 2.100 The expanded presentation of some cross-sectoral priorities in this introductory part of the Programme of Work and Budget is in response to expressed wishes from FAO Governing Bodies. The above list of selective priorities should in no way be construed as exclusive in terms of other programme areas or means of action to which member countries expect FAO to pay attention.
- 2.101 Accordingly, Member Governments will be able to assess, on careful examination of proposed activities, that other priority concerns have not been overlooked. Many well-supported areas are subsumed under the above cross-sectoral priorities, for example work on genetic resources or pesticides as part of sustainable development efforts, the GIEWS as part of agricultural data development, etc. The proposed preliminary work on the Asia and Pacific Study and continuation of cooperation with the private sector are self-evident components of the overall priority on policy advice. Other traditional activities such as on animal health (with the need to respond to new threats such as the American screwworm fly), food standards, implementation of the plant protection convention or investment support, are being continued and refined according to evolving circumstances.
- 2.102 Likewise, the hitherto regional emphasis on Africa and the pursuance of other well-established cross-sectoral priorities such as training, assistance to small farmers and support to E and TCDC remain firm features of the Programme of Work and Budget. A large number of planned activities are in one way or another responsive to the latter priorities.

III. FIELD PROGRAMME

- 3.1 Comprehensive information on FAO's extra-budgetary programmes is given in the Review of Field Programmes 1988-89. General developments and financial prospects relating to the Field Programme are summarized below.

Technical and Material Assistance

- 3.2 FAO's pre-investment, technical assistance and material support programmes are expected to rely on the same mix of funding sources, as shown in the following table:

YEARLY EXPENDITURES ON FAO FIELD PROGRAMMES FUNDED FROM EXTRA-BUDGETARY SOURCES

(US\$ million, by programme and programme category)

<u>FIELD PROGRAMMES</u>	1980	1981	1982	1983	1984	1985	1986	1987	1988
1. FAO/UNDP Programme	167.1	182.5	141.1	116.5	109.2	115.9	128.8	128.4	155.0
2. <u>Trust Fund Technical Assistance</u>									
FAO/Government									
Cooperative Programme	32.6	38.9	44.4	43.8	56.8	65.4	73.0	72.5	74.6
Associate Professional Officer Scheme	14.5	14.6	13.0	12.6	13.7	13.2	12.9	13.2	16.5
Near East Cooperative Programme	4.8	3.3	3.0	1.3	0.7	0.9	0.8	0.9	0.6
Unilateral Trust Funds	10.9	13.8	24.5	33.5	38.2	42.1	34.7	29.6	31.2
PFL Special Account	3.6	4.0	2.7	1.5	0.5	0.6	0.6	0.6	0.8
Freedom from Hunger Campaign/AD	1.6	1.7	1.0	1.1	1.0	1.1	0.9	1.3	1.2
UN Fund for Population Activities	3.5	2.3	1.9	0.9	1.7	2.1	1.3	2.0	2.5
UN Environment Programme	1.3	0.8	0.9	1.9	0.8	0.9	0.6	0.8	0.9
Other UN Organizations	1.7	2.9	3.1	4.7	10.5	9.4	7.1	6.7	7.8
Special Relief Operations (OSRO)	14.7	30.4	15.5	12.2	5.3	4.0	4.1	4.7	4.4
International Fertilizer Supply Scheme (IFS)	3.3	2.2	3.8	0.1	3.2	1.5	1.6	0.8	1.3
Emergency Centre Locust Operations (ECLLO)	-	-	-	-	-	-	7.0	7.4	9.2
Miscellaneous Trust Funds	6.4	5.2	5.9	6.7	7.2	6.4	6.6	7.4	8.6
Sub-total	98.9	120.1	119.7	120.3	139.6	147.6	151.2	147.9	159.6
TOTAL	266.0	302.6	260.8	236.8	248.8	263.5	280.8	276.3	314.6

- UNDP

- 3.3 1988 witnessed a vigorous surge in FAO/UNDP delivery. This welcome development portends a reversal of the negative trend initiated at the start of the decade. In fact, total project expenditure experienced a continuous decline between 1981 and 1984 when it reached a low of under US\$ 110 million. In 1983, the percentage share of UNDP in FAO's extra-budgetary field programmes went for the first time below 50 percent, but is now almost back to this level. Total UNDP project expenditure is, however, still considerably lower in nominal and especially real terms than it had been in the "peak" years of 1980 and 1981.
- 3.4 The pledging conference for UNDP in November 1988 has resulted in an estimated US\$ 1 300 million being available for 1989, against US\$ 805 million in 1987. This is due to increased contributions from a number of donors, but also to the relatively lower level of the US dollar, which has increased the dollar value of many pledges in national currencies. The results, in real terms, compared with past levels, indicate a possible further expansion in expenditure on agriculture, provided that vigorous efforts and strong governmental commitments are made in this connection, during the current fourth UNDP programming cycle (1987-1991).

- Trust Funds

- 3.5 Throughout the eighties, there has been a steady increase in Trust Fund delivery, which reached US\$ 160 million in 1988 or slightly above 50 percent of total extra-budgetary field programmes. Taking into account the level of recent approvals and expected contributions from various funding sources, the delivery is expected to remain at this level in the near future.
- 3.6 The FAO/Government Cooperative Programme (GCP) remains the major component of the Trust Fund Programme. Delivery in 1988 was about US\$ 75 million, more than double the level achieved in 1980. Part of the steady growth is attributable to projects funded by the Governments of Italy and the Netherlands. The Associate Professional Officer Scheme has also attracted continuing support, with a growing number of APOs, especially in the field. The surge of expenditures since 1986 linked to the activities of the Emergency Centre for Locust Operations (ECLO), with the generous assistance of several donor governments, has permitted a timely response to the threats of locust invasions over most of Africa.
- 3.7 Unilateral Trust Fund expenditure rose from US\$ 10.9 million in 1980 to US\$ 31 million in 1988. This is still due to some large projects funded by the group of countries traditionally using the Unilateral Trust Fund mechanism, and also to technical assistance projects in connection with development bank loans. There is a good potential for FAO's further involvement with this type of project and a dialogue is maintained with financial institutions in this regard. Further expansion is naturally dependent on the willingness of beneficiary governments to request FAO's involvement, going beyond the institution-building and training aspects to which FAO's intervention has been mostly confined so far.

- 3.8 Expenditure through the Office for Special Relief Operations (OSRO) varies from year to year depending on the number of emergencies and the amount of donor assistance channelled through it. In the last few years, expenditure has oscillated within the relatively low range of US\$ 4-5 million. Assistance to the rehabilitation of agriculture in Afghanistan may lead to increased delivery in future years.
- 3.9 FAO's Special Action Programmes have continued to play an important role in attracting financial support for well-defined technical sectors. Under the Government Cooperative Programme, donors have continued to favour funding a long-term programme approach to individual, separate projects. These programmes follow a strategy based on FAO's Regular Programme priorities and include field activities at regional and national levels. Among the priority Special Action Programmes that received strong support recently are the Tropical Forestry Action Plan; Food Security in its expanded concept; Fertilizer, Seeds, Pest Control and Marketing for the benefit of small farmers; Aquaculture and Small-scale Fisheries. Most of these programmes have a strong focus on the role of women in rural development and on environmental impact.

Food Aid

- 3.10 A predominant share of food aid projects of the UN/FAO World Food Programme relates to agricultural and rural development, including afforestation and desertification control activities. Formulation of these projects draws heavily on FAO technical inputs, while the range of project activities each year depends on the nature of requests from recipient governments. Cooperation between FAO and WFP is expected to remain at current levels.

Support Costs

- 3.11 Revised support cost reimbursement arrangements for UNDP-financed technical assistance were introduced in 1981, to be applied to the ten-year period 1982-1991. Subsequently, a decrease from 14 to 13 percent of the reimbursements on UNDP delivery took effect in January 1987. A similar formula, with suitable adaptations, was applied to TF projects.
- 3.12 Coupled with this reduced percentage, the steep depreciation of the US dollar experienced in 1986-87 has greatly compromised the capacity of the support costs (SC) income of the Organization to continue to finance the same levels of staff complements, principally at headquarters. In the absence of protective mechanisms regarding currency fluctuations, a rundown of SC reserves proved necessary, accompanied by a contraction of the number of SC-financed staff. However, FAO's field programme delivery, as reported above, has maintained its momentum. In effect, the difficulties experienced by the European-based agencies which implement UNDP projects have been fully recognized by the UNDP Governing Council itself in June 1988. An additional, one-time amount covering some of the support costs incurred in 1987 was approved by the Council. This has afforded welcome breathing space but has in no way addressed the structural problems towards a mutually-acceptable solution. Any satisfactory long-term solution should aim at preserving timeliness and quality during the implementation of projects through adequate reimbursement arrangements.

- 3.13 As instructed by the General Assembly of the United Nations, the UNDP Governing Council is to develop successor arrangements for support costs which it would consider in 1990 for adoption beyond 1991. A group of experts has been appointed to formulate recommendations in this regard. FAO is actively involved in providing inputs to this study. At the inter-secretariat level, a special task force has been established under the umbrella of the Consultative Committee on Substantive Questions (Operational Activities), with the participation of the Consultative Committee on Administrative Questions (CCAQ) and the Office of the UN Director-General for International Economic Cooperation (DIEC) to provide coordinated inputs to this important exercise, from the vantage point of the agencies of the UN system most concerned. Further developments will be duly reported to FAO Governing Bodies.

Investment

- 3.14 The Organization, through its Investment Centre, has continued to mobilize external and domestic investments for agricultural and rural development in developing countries. Up to end-1988, FAO has been instrumental in generating, through 752 projects, more than US\$ 34 377 million of investment, including US\$ 17 572 million from external financing institutions. Eighty-six percent of the total (74 percent of the projects) has been committed since 1976, when the Investment Centre was substantially strengthened. In 1988, 44 projects, which involved the Investment Centre's technical assistance, were approved. Corresponding investment amounted to US\$ 1 669 million of which US\$ 1 025 million came from financing institutions, two-thirds of which on concessional terms. The balance was provided by the recipient countries themselves.
- 3.15 During 1988, the Investment Centre carried out 196 missions under its own responsibility, 106 under the FAO/World Bank Cooperative Programme (CP) and 90 under the Investment Support Programme (ISP); in addition the Centre participated in 76 missions led by financing agencies. Nineteen (34 percent) of the World Bank's agricultural projects approved for financing during the Bank's fiscal year 1988 (ending June 1988) were prepared by the CP. The ISP continued to work at a high level with IFAD and the African Development Bank during 1987-88. Cooperation was maintained with the Asian Development Bank and re-initiated with the Inter-American Development Bank. 1988 saw a strong increase in joint activities with the United Nations Capital Development Fund (UNCDF).
- 3.16 Sub-Saharan Africa continued to receive emphasis in Investment Centre activities. During 1988, 57 percent of the projects approved and 56 percent of the projects on which the IC worked, concerned this region. This emphasis is even more pronounced in the case of the Investment Support Programme, where 72 percent of projects worked on were in Sub-Saharan countries.
- 3.17 The level of work for the next two years is expected to remain the same as at present. Proposals from the World Bank regarding its level of cooperation for fiscal years 1991-92 within the framework of the FAO/World Bank Cooperative Programme are not expected before 1990. It is assumed that the present level of cooperation will be maintained. Demand from the various financing institutions for the services of the Investment Support Programme continues to be strong. It should be noted that the fluctuations in the level of cooperation with individual institutions, occasioned by temporary operational problems or resource constraints of these institutions, tend to even out in the aggregate.

IV. ANALYSIS OF THE PROPOSED BUDGET

Programme Changes

- 4.1 The general approach to the programme proposals for 1990-91 is described in the Director-General's Introduction to this document, and full details on the substantive aspects of the programme changes are contained in the Programme Budget.
- 4.2 The percentage distribution by chapter of the total budget for 1988-89 and that proposed for 1990-91 is shown in Figures 1 and 2. The percentages differ somewhat from those shown in the Summary Programme of Work and Budget, because of the application of cost increases by chapter, and because of the changes in proposals between the Summary and this document. The percentages would also vary with a change in the Lire/US Dollar exchange rate.
- 4.3 Table A summarizes the net programme changes by Major Programme and Chapter for Organizational Groups at 1988-89 costs and at Lit. 1 235 to the US Dollar. (The cost of the programmes at 1990-91 costs are given further below in the Summary Table at the beginning of the Programme Budget, and in the tables in the Narratives and Annexes.)

Organizational Changes

- 4.4 Some relatively minor organizational changes are under consideration at the time of finalization of the budget document. So as not to delay issuance of this document, information on these, if pursued, will be provided in a supplement.

Objects of Expenditure

- Established posts

- 4.5 The Director-General has consistently pursued a policy of reducing the number of Professional and General Service posts both at Headquarters and in the Regional and Liaison Offices. This has resulted, over several biennia, in profound changes in the composition of FAO's budget, decreasing the proportion committed to fixed expenditure on personal services, and enhancing flexibility in implementing programmes. Along with the reduction in established posts has come an increase in reliance not only on consultants but also on national institutions, both for direct execution of activities and for cooperative undertakings within networks.
- 4.6 For 1990-91, the Director-General again proposes a reduction in established posts, basically limited to the General Service category. A limited number of new Professional posts, are proposed to implement priority programmes for which it is not advisable to rely on short-term expertise. The net reduction in posts would have been much larger had it not been necessary to propose 27 additional General Service posts to support the re-opening of the Regional Office for the Near East.

**COMPARISON OF 1990-91 PROPOSED PROGRAMME BUDGET TO
1988-89 TOTAL APPROVED BUDGET BY CHAPTER**

Percentages (at Lire 1 235 = US\$ 1)

Figure 1

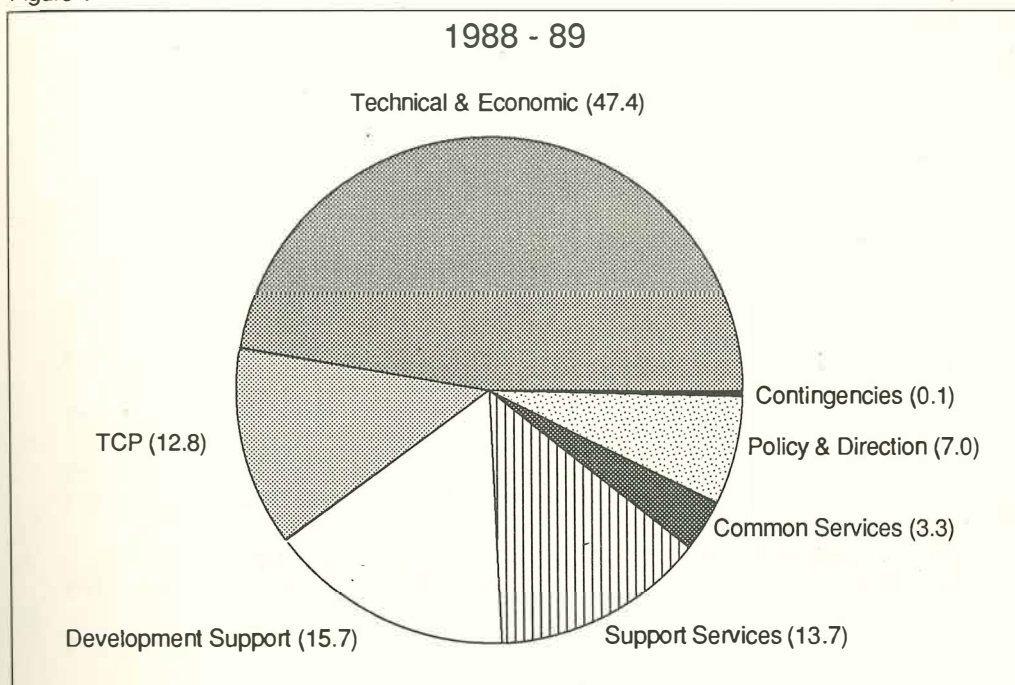
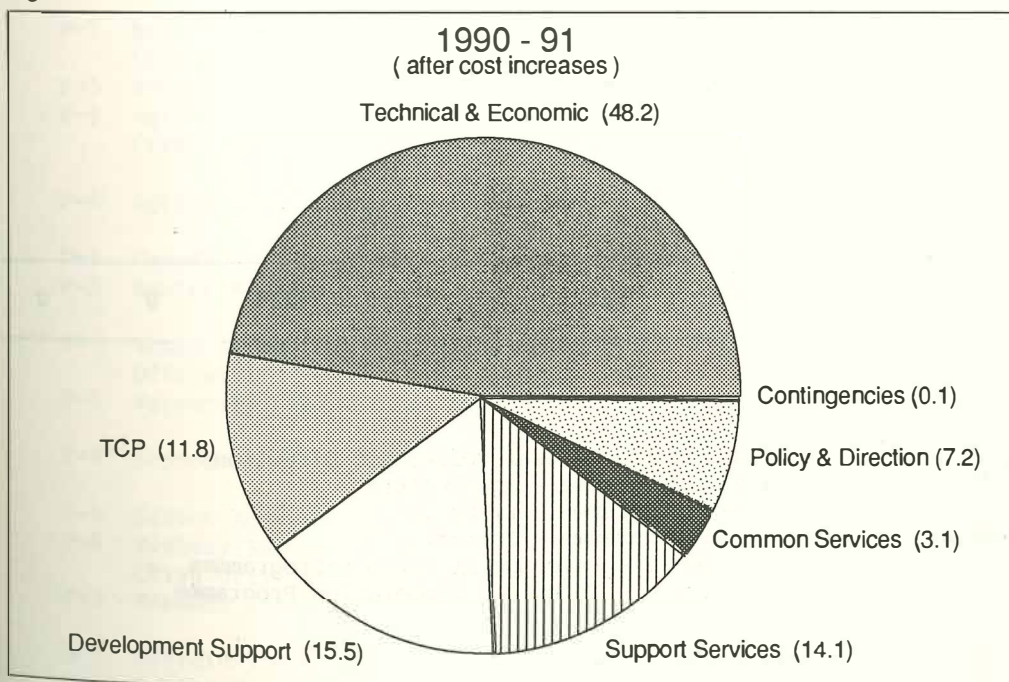


Figure 2



**TABLE A - PROGRAMME CHANGE BY MAJOR PROGRAMME AND CHAPTER
FOR ORGANIZATIONAL GROUPS**
(At Lit 1 235 = US\$ 1 at 1988-89 Costs)

	<u>CH 1</u>	<u>MP 2.1</u>	<u>MP 2.2</u>	<u>MP 2.3</u>	<u>CH 3</u>	<u>CH 4</u>	<u>CH 5</u>	<u>CH 6</u>	<u>CH 7</u>	<u>TOTAL</u>
ODG	144									144
AF										0
AG		1 698								1 698
ES		1 001								1 001
DD										0
FI			400							400
FO				450						450
GI	(144)	(14)					215			57
LO										0
RAFR		(184)	96	92			(4)			0
JAFR										0
RAPA		(7)	(17)	4			20			0
REUR		(37)		37						0
JEUR										0
RLAC		(44)	55	6			(17)			0
JLAC										0
RNEA		(117)	58	59						0
JNEA										0
CONT										0
TCP						1 750				1 750
TOTAL	0	2 296	592	648	0	1 750	214	0	0	5 500

Legend to column headings:

CH 1	Chapter 1 - General Policy and Direction
MP 2.1	Major Programme - Agriculture
MP 2.2	Major Programme - Fisheries
MP 2.3	Major Programme - Forestry
CH 3	Chapter 3 - Development Support Programmes
CH 4	Chapter 4 - Technical Cooperation Programme
CH 5	Chapter 5 - Support Services
CH 6	Chapter 6 - Common Services
CH 7	Chapter 7 - Contingencies

TABLE B - PROPOSED NEW AND ABOLISHED POSTS 1990-91

<u>New Posts</u>		
<u>Unit</u>	<u>Professional</u>	<u>General Service</u>
AUD		G-5 Clerk G-3 Bilingual Typist
LEG	P-5 Senior Legal Officer	
PBE	P-5 Senior Evaluation Officer	
AFC	P-5 Corporate Systems Coordinator (Computer Pool)	
AFS	P-4 Contracts Officer	
AGL	P-5 Senior Officer (Integrated Plant Nutrition System) P-5 Senior Officer (Water Development) P-5 Senior Officer (Water Development Planning)	
AGP	P-5 Senior Agricultural Officer (Plant Biotechnology) P-5 Coordinator (Cooperative Action for Plant Health) P-4 Agricultural Officer (Locust Forecasting)	
AGR	P-5 Senior Remote Sensing Officer (Environmental Monitoring) P-5 Senior Officer (Agrometeorology) P-5 Agrometeorology Officer (transfer from AGP)	G-4 Clerk-Stenographer (transfer from AGP) G-3 Statistical Clerk (transfer from AGP)
AGS	P-4 Agricultural Industries Officer	G-4 Reference Clerk
ESD	D-1 Coordinator, Population Programme P-5 Senior Economist	
ESH	P-4 Training and Project Development Officer P-4 Secretary, World Food Day Committee	G-6 Administrative Assistant (WFD)
ESP	P-4 Economist	
FI	P-5 Senior Aquaculture Development Adviser P-4 Fishery Resources Officer (Fish Utilization) P-3 Fishery Information Officer	
FO	D-1 Coordinator TFAP P-5 Senior Forestry Officer (Forestry Research) P-4 Forestry Officer (Forest Protection) P-4 Forestry Officer (Non-Wood Forest Products) P-4 Forestry Officer (Forest Genetic Resources)	

<u>Unit</u>	<u>Professional</u>	<u>General Service</u>
DDF	P-5 Senior Officer (Field Office Inspection)	
GIL	P-2 Documentation Officer (Subject Specialist) P-2 Information Systems Officer (AGRIS/CARIS)	
RNEA		<u>Immediate Office of Regional Representative</u> G-4 Steno/Secretary <u>Administration</u> G-6 Personnel Assistant G-5 Administrative Clerk G-5 Accounting Clerk G-4 Accounting Clerk G-4 Travel Clerk <u>Library</u> G-7A Library Assistant <u>Internal Services</u> G-7B Internal Services Supervisor G-5 Administrative Clerk G-5 Secretary/Typing Pool Supervisor G-4 Registry Clerk G-4 Clerk-Telex/Telefax Operator G-4 Steno/Secretary G-3 Receptionist G-3 Telephone Operator G-3 Driver G-3 Clerk-Typist G-3 Clerk-Typist G-3 Clerk-Typist G-2 Driver G-2 Driver G-2 Driver G-2 Typist (E) G-2 Typist (A) G-1 Messenger G-1 Messenger G-1 Lift Operator
TOTAL	30	33

Abolished Posts

<u>Unit</u>	<u>Professional</u>	<u>General Service</u>
IAA	P-5 Chief, Inter-Agency Matters Unit	G-6 Research Assistant G-3 Records and Documentation Clerk
LEG		G-5 Clerk G-3 Bilingual Typist
AFF		G-3 Registry Clerk G-3 Clerk-Typist
AFS		G-6 Security Assistant G-5 Assistant Supervisor, Transport Unit G-5 Chief Tel. Operator G-3 Senior Guard G-3 Senior Guard G-3 Electrician G-2 Gardener G-1 Messenger G-1 Messenger G-1 Messenger G-1 Messenger G-1 Messenger G-1 Messenger G-1 Messenger G-1 Messenger G-1 Messenger G-1 Sp. Labourer G-1 Sp. Labourer G-1 Sp. Labourer G-1 Sp. Labourer
AGA	P-5 Senior Officer (Dairy Development)	G-3 Stenographer G-3 Stenographer G-3 Stenographer
AGL	P-5 Senior Officer (International Fertilizer Supply Scheme) P-2 Meetings Officer/Editor	
AGP	P-4 Agricultural Officer (Agrometeorology) (transfer to AGR)	G-4 Clerk-Stenographer (transfer to AGR) G-3 Statistical Clerk (transfer to AGR) G-3 Clerk-Typist G-3 Clerk-Typist G-3 Bilingual Typist
AGR		G-3 Clerk-Typist
AGS		G-4 Clerk-Stenographer

<u>Unit</u>	<u>Professional</u>	<u>General Service</u>
ESC		G-4 Research Clerk G-4 Clerk-Stenographer
ESH		G-4 Clerk-Stenographer G-4 Clerk-Stenographer G-4 Bilingual Stenographer G-3 Stenographer
ESN		G-4 Clerk-Stenographer G-3 Stenographer G-3 Stenographer
ESP		G-6 Research Assistant G-5 Research Clerk G-3 Bilingual Typist
ESS		G-6 Scheduling Assistant G-4 Statistical Clerk G-2 Typist
FI	P-4 Fishery Industry Officer P-4 Fishery Industry Officer	G-6 Administrative Assistant G-4 Budget Clerk G-4 Library Clerk G-4 Clerk-Stenographer G-4 Clerk-Stenographer G-3 Bilingual Typist
FO		G-5 Research Clerk G-4 Clerk-Stenographer G-4 Bilingual Stenographer
DDC	D-1 Senior Adviser D-1 Agricultural Economist D-1 Agricultural Economist D-1 Agricultural Economist D-1 Fishery Officer P-4 Project Analyst P-4 Project Analyst P-4 Agricultural Economist	
DDF	P-4 Programme Officer P-2 Programme Officer	
GIC	P-4 Protocol Officer	
GIL		G-7 Documentation Assistant G-4 Library Clerk
GIP		G-5 Proofreader (Spanish) G-3 Binding and Finishing Operator G-3 Correspondence Clerk (Arabic)

<u>Unit</u>	<u>Professional</u>	<u>General Service</u>
JNEA	P-3 Agricultural Economist	
RAFR		G-5 Bilingual Clerk-Stenographer
RLAC		G-4 Cable Clerk G-4 Bilingual Stenographer
<hr/>		
TOTAL	19	69
<hr/>		
NET	11	-36
<hr/>		

4.7 The net changes in the proposed establishment are as follows:

Net Changes in Regular Programme Established Posts

1990-91

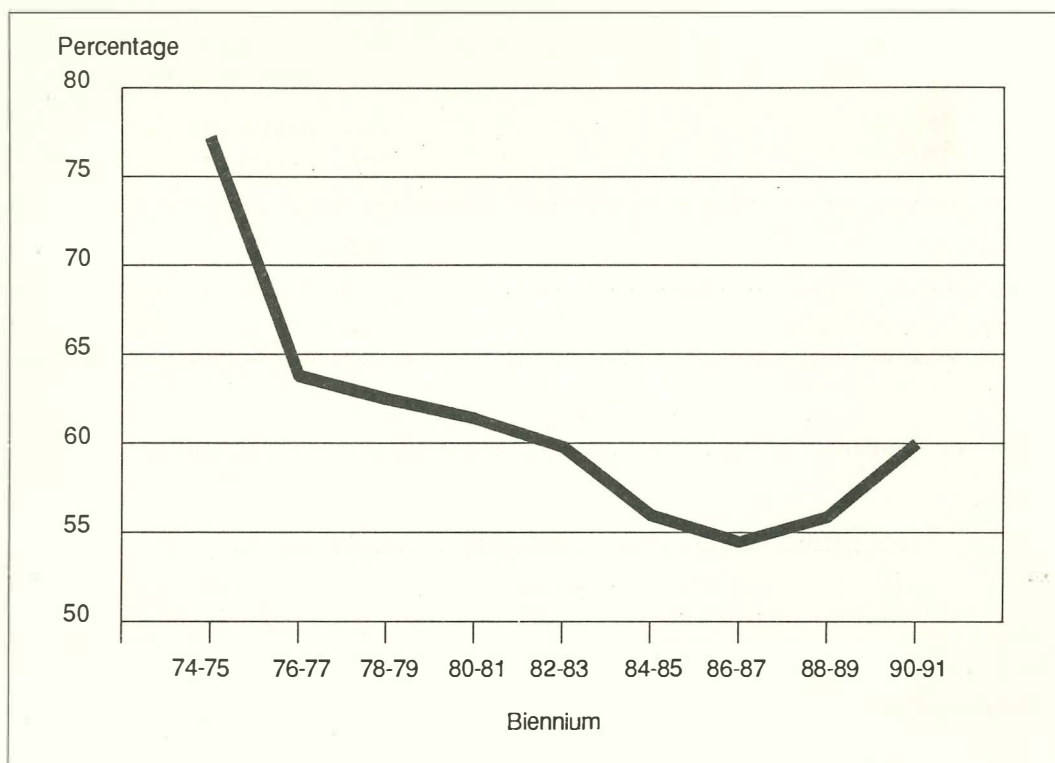
	<u>Professional</u>	<u>General Service</u>	<u>Total</u>
Headquarters	12	-60	-48
Regional Offices/ Joint Divisions	-1	+24	+23
	<hr/>	<hr/>	<hr/>
	11	-36	-25
	<hr/>	<hr/>	<hr/>

4.8 Despite the further net reduction in posts, the high cost increases related to Personal Services mean that expenditures on established posts, as a proportion of total expenditure, will increase.

4.9 Expenditures on established posts, as a proportion of total expenditure, will constitute 60.1 percent of the total budget.

Figure 3

**PERCENTAGE OF APPROVED BUDGET
FOR ESTABLISHED POSTS**



- 4.10 The figures above include the cost of salaries of staff in Regional, Liaison and FAO Representative Offices. If these are excluded, the proportion of expenditure on established posts to total expenditure in 1988-89 is 43.5 percent and in 1990-91 will be 46.6 percent.

- Other objects of expenditure

- 4.11 The tables in Annex II - Budget by Organizational Unit, give further information on the proposed distribution by object of expenditure, including cost increases. For purpose of programme comparison, the following comments refer to changes in budgetary provisions, excluding cost increases.
- 4.12 The programme provision for consultants shows a slight increase of 2.7 percent. The modesty of the increase reflects the fact that consultants must be recruited, guided and managed by established Regular Programme staff, and when staff resources are limited, the capacity to use consultants is also limited. The provision for contractual services will increase by 3.5 percent. In part this is due to the fact that contracting work to established institutions diminishes the need for close administrative and technical backstopping, such as that required for individual consultants. Furthermore, provision is made under this heading for regular maintenance of word processing and office automation equipment.

- 4.13 The provision for official travel will increase by 2.8 percent, to permit continued emphasis on training and on providing advisory services and direct support to member countries as well as attendance by government-designated and approved experts at meetings, workshops and consultations for which FAO bears the cost of participants' travel. General Operating Expenses will decrease by 1.7 percent, in line with the continued attention to economies and efficiency.
- 4.14 The programme provision for meetings shows a decrease of almost 5 percent. The direct costs of these meetings are shown as a separate object of expenditure in the Tables in Annex II. In addition, Sup. 2 to the Programme of Work and Budget contains a list of the meetings proposed to be held.
- 4.15 Computer Services will decrease by 8 percent following the installation of microcomputers resulting in a slightly lower demand for central computing facilities. A reduction of 1 percent is made under Publications and Documents. The distribution of the costs of publications and documents, and of computer services, is given in Annex II. The list of proposed publications is given in Sup. 1 to the Programme of Work and Budget.

- Publications Revolving Fund

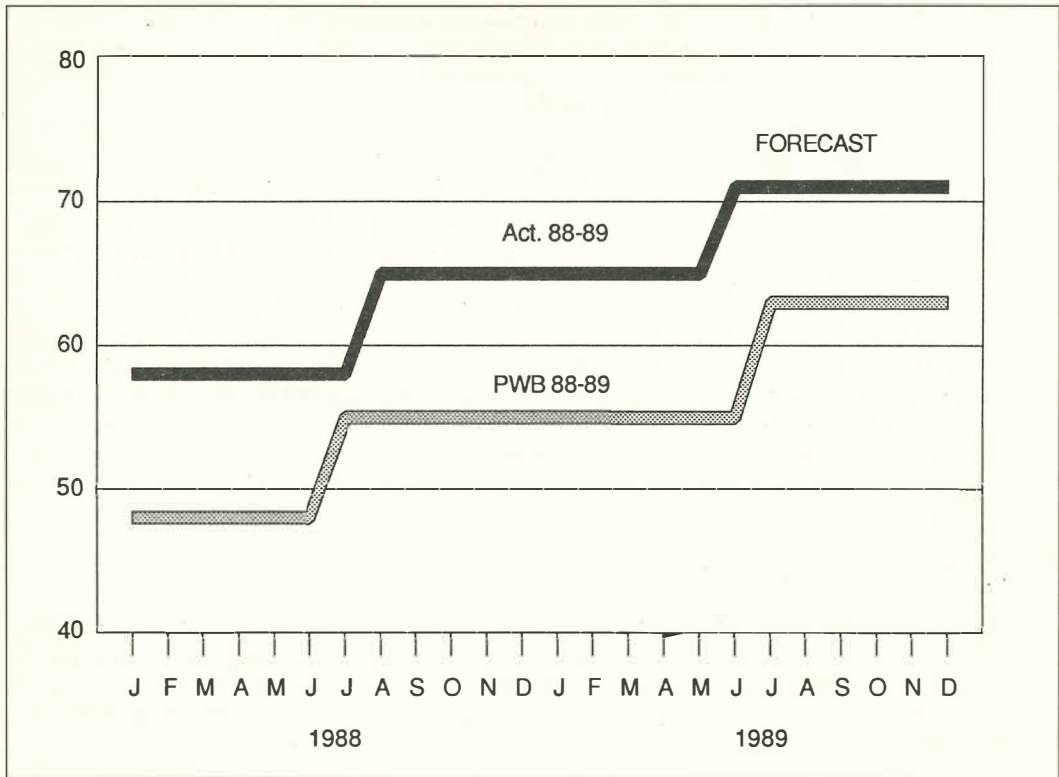
- 4.16 The provision for publications and documents in the Regular Budget is supplemented by the Publications Revolving Fund, which uses income from sales of official FAO publications to finance sales promotion, reprints, and some personnel costs connected with these activities. Further details are given in Annex II.

Cost Increases

- 4.17 The methodology for calculation and presentation of cost increases in 1990-91 is the same as used for 1988-89 and approved by the Finance Committee, Council and Conference.
- 4.18 The cost increase estimates are not built up on speculations about inflation rates in the host country during the next biennium. They take account, to the greatest extent possible, of known facts such as the actual payments for staff salaries and allowances in the previous years; the probable increases in General Service salaries; the measurable impact of approved changes in the net and gross salary scales for Professional staff; changes in staff allowances as and when approved by the authoritative body concerned; increases in rent, utility prices, printing contracts; and an assessment of trends and factors affecting FAO's pattern of expenditures on a worldwide basis.
- 4.19 The cost estimates do not therefore result from simplistic assumptions, nor generalized approaches. As the following table and notes show, they are built up, item by item, and related to the different origins and types of FAO expenditures, the different factors affecting each of them, and the different indicators which are applicable, including past experience and trends.

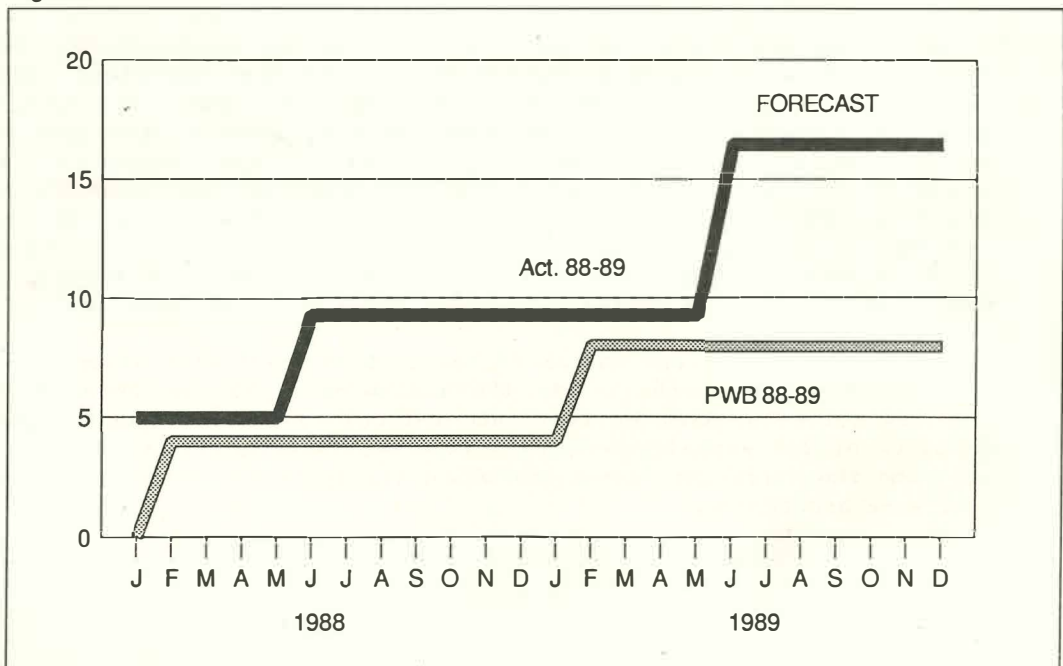
POST ADJUSTMENT MULTIPLIER 1988-89
(at Lire 1235/US\$)

Figure 4



GENERAL SERVICE SALARY INCREASES
1988-89 (at Lire 1235/US\$)

Figure 5



Biennialization

- 4.20 The cost increases are, as previously, divided between biennialization of additional costs or savings actually occurring during 1988-89 and expected inflation arising during 1990-91.
- 4.21 The process of biennialization in effect updates the current base before any costs (and programme changes), expected during the next biennium, are added. Thus, costs which arise at different times during the current biennium have to be added to the base on a full 24 months' basis for the next biennium. The reverse obviously applies to the decrease, if applicable, where a negative biennialization figure would reflect the full 24 months' impact of the reduction.
- 4.22 The process can be readily appreciated from the graphs in the Figures 4 and 5 showing the post adjustments for Professional staff and the increases in salaries of Rome-based General Service staff which were budgeted for 1988-89. In both cases, increases were foreseen as occurring during certain months of 1988-89 and as such budgeted for the amounts involved in their expected "lifetime", e.g. at the constant lire/dollar rate of Lit. 1 235 to US\$ 1, a post adjustment in July 1988 for 18 months, and one in July 1989 for six months.
- 4.23 The graph of increases in the salaries of Rome General Service staff in Figure 5 illustrates the same process as applied to a different situation. Salary increases were foreseen and budgeted for as occurring in February 1988 and February 1989. In line with the methodology for between-survey adjustments as approved by the Council at its Eighty-sixth Session, an increase of 4.28 percent in net base salaries was approved with effect from 1 June 1988. A further increase of 7.16 percent became effective 1 June 1989.

- Cost increases occurring during the biennium 1990-91

- 4.24 Leaving aside biennialization, the second basic aspect of the cost estimates is constituted by the cost increases related to the base which are expected to occur at different times and thus for varying periods of months in the biennium ahead, i.e. after 1 January 1990 but before 31 December 1991. In addition, cost increases, which are related to the programme increases proposed in this Programme of Work and Budget, will also occur at varying times on a partial basis during the next biennium and must be included.
- 4.25 In order to calculate the total amounts, some assumptions have to be made. They cannot be and are not based solely on expected conditions in the host country. They take account of costs in the Regional and FAO Representatives' Offices, in the Liaison Offices in Washington, New York and Geneva, of worldwide trends affecting post adjustments and salary index adjustments, and of information from other organizations and sources.

- Personal Services

- 4.26 As already indicated, an item-by-item review is made of known facts and different controlled assumptions concerning different categories of costs. Among these, the proportion of the cost of established posts to total expenditure has been progressively reduced, but the total of

Personal Services still constitutes the greater part of total expenditure, albeit made up of diverse elements.

- 4.27 As previously indicated, in order to maintain parity of earnings in the whole UN system, differential post adjustments are effected to compensate for differences in cost of living, including those arising from currency fluctuations, at different duty stations. The methodology and operation for post adjustments is the responsibility of the ICSC which has the authority to determine the post adjustment classification for each duty station. Their decisions are applied by all agencies which are part of the UN common system. Changes in the rate of exchange, unlike cost of living increases, may result in immediate partial adjustments.
- 4.28 General Service staff salaries are not uniform throughout the whole system. They are based on periodic salary surveys of local conditions and adjusted for movements in cost of living according to official wage indices. For Headquarters, salary index increases are based on the official ISTAT index. Wage indices are implemented with immediate effect. Except to a limited extent, the payments to General Service staff are not affected by currency fluctuations.

- Incremental steps and upgradings

- 4.29 In both staff categories, estimates have also to be made for "automatic" effects of within-grade steps, as well as any offsetting factors, such as the separation of staff and new staff entering with less seniority at a lower step. In the past, these offsetting factors did permit compensation of the costs of the within-grade steps in full. This is no longer the case following the slowing down in external recruitment and the increasing redeployment of internal staff. A corresponding increase in the budgetary provision is therefore required.
- 4.30 The cost of the 1988-89 upgradings, which have been absorbed during the biennium they become effective, need to be covered under the cost increases in line with the prevailing practice. No provision has been made to cover the related costs which are in the order of US\$ 600 000.
- 4.31 Common Staff Costs consist of pension fund contributions, education grants, family allowances, home leave and family visit travel, appointment, transfer and repatriation travel, household goods and repatriation grants, the General Service separation payments scheme, and various other minor allowances. These items are treated essentially in three different ways:
- (i) certain items, e.g. pension fund contributions normally vary directly in proportion to salaries and are treated accordingly. Revised scales of pensionable remuneration for the Professional and higher categories, became effective in January and May 1989. The budgetary provision is based on the new scales while it has been assumed that based on index movements, increases in the pensionable remuneration levels would be approved in 1990-91 with a resulting increase in the contribution payments;
 - (ii) family allowances and maximum education grant allowances are recommended by the ICSC. The maximum education grant was raised

from US\$ 4 500 to US\$ 6 750 applicable as from the school year in course on 1 January 1989. Within the maximum education allowances, the actual amounts are affected by inflation, so that payments can be expected to vary in the future;

(iii) other items are mainly related to the cost of travel and are treated in the same way as cost increases for travel in general.

- Lapse Factor

4.32 It should be mentioned that as in previous budgets and in line with the decision of the Finance Committee, subsequently endorsed by the Council at its Sixty-first Session, a vacancy rate factor of 5.5 percent, the so-called "lapse factor", is applied to costs of all established posts. This practice is followed to allow for turnover, delayed recruitment, separations and newly established posts; it has the effect of reducing the budget by an amount of some US\$ 20 million.

- Goods and Services

4.33 These normally comprise the increase in costs of consultants, duty travel, contractual services, supplies and equipment. In order to keep the budget increase to a minimum, no provision is made for cost increases which inevitably will arise in the services of consultants and provision for duty travel in 1990-91. Such costs, whenever they arise, will have to be absorbed within resources available. An allowance is made for cost increases for contractual services, supplies and equipment.

- Cost Increases Tables

4.34 The following tables present details of the cost increases which have been calculated in accordance with the methodology explained above.

4.35 In Table C a breakdown is provided of the staff costs for the Professional and General Service staff categories. The same information is subsequently shown in Table D as part of the overall situation on cost increases.

TABLE C

	<u>1990-91</u> (programme base)	<u>1990-91</u> (including cost increases)
	(US\$ 000)	
<u>Professional Category -</u>		
<u>Cost Increases 1990-91</u>		
Basic salaries	82 746	87 849
Post adjustments	28 511	53 064
Pension Fund contributions	21 350	26 428
Social security	3 177	5 468
Dependency allowances	1 901	2 656
Education grant	7 551	8 723
Travel on appointment, repatriation, etc.	8 540	8 540
Recruitment and separation costs	14 434	15 645
	<hr/>	<hr/>
	168 210	208 373
 <u>General Service Category -</u>		
<u>Cost Increases 1990-91</u>		
Basic salaries	85 157	101 911
Pension Fund contributions	11 915	15 850
Social security	2 515	4 319
Dependency allowances	2 077	2 651
Education grant	1 093	1 366
Travel entitlements	492	492
Recruitment and separation costs	1 273	1 567
Separation payments scheme	6 204	8 472
	<hr/>	<hr/>
	110 726	136 628

TABLE D

COST INCREASES 1990-91
(All Categories)

(US\$ '000 at Lit 1 235 = US\$ 1)

		A	B	C	
	<u>1990-91</u> <u>Programme</u> <u>Base</u>	<u>Biennialization</u> <u>of costs origi-</u> <u>nally arising</u> <u>during 1988-89</u>	<u>Inflation</u> <u>arising</u> <u>during</u> <u>1990-91</u>	<u>Total Cost</u> <u>Increases</u> <u>in 1990-91</u>	
(1) PERSONAL SERVICES					
(i)	Basic Professional Salaries	82 746	911	4 192	5 103
(ii)	Post Adjustments	28 511	16 403	8 150	24 553
(iii)	General Service Salaries	85 157	2 651	14 103	16 754
(iv)	Pension Fund Contributions	33 265	4 599	4 414	9 013
(v)	Social Security	5 692	2 567	1 528	4 095
(vi)	Dependency Allowances	3 978	1 001	328	1 329
(vii)	Education Grant	8 644	1 445	0	1 445
(viii)	Travel on Appointment Repatriation etc.	9 032	0	0	0
(ix)	Recruitment and Separation Costs	15 707	863	642	1 505
(x)	General Service Separation Payments Scheme	6 204	1 066	1 202	2 268
TOTAL PERSONAL SERVICES		278 936	31 506	34 559	66 065
(2) GOODS AND SERVICES					
(xi)	Consultants	24 980	0	0	0
(xii)	Duty Travel	24 879	0	0	0
(xiii)	Contractual Services	82 503	0	2 735	2 735
(xiv)	Supplies and Equipment	37 029	0	3 685	3 685
(xv)	General Operating Expenses	49 533	0	4 115	4 115
TOTAL GOODS AND SERVICES		218 924	0	10 535	10 535
GRAND TOTAL		497 860	31 506	45 094	76 600

4.36 An explanation of Table D follows:

PERSONAL SERVICES

- (i) Basic Professional Salaries - The new rates of staff assessment implemented with effect from 1 April 1988 resulted in an increase in gross salaries but did not affect net base salaries, which remained unchanged at the level they reached in January 1985, when 20 points of post adjustment were consolidated into base salaries. Although there is no change in the basic salaries, additional resources are required to cover a shortfall in the present budgetary provision as part of the biennialization cost. This is due to the annual step increases, the cost of which in the past was being offset by the vacancies being filled with new staff having less years of service. This is no longer the case following the slowing down of external recruitment and the increasing redeployment of internal staff.

The UN General Assembly, at its 1987 session, requested the International Civil Service Commission (ICSC) to undertake a comprehensive review of the conditions of service of staff in the Professional and higher categories to provide a sound and stable methodological basis for their remuneration. The General Assembly also requested that this study be completed and the recommendations presented to it at its Forty-fourth Session in 1989. Pending the completion of the above review by the ICSC and the decision the General Assembly may take at its 1989 session, provision has been made for an assumed 5 percent increase in salaries and related allowances identified below.

- (ii) Post Adjustment - The PWB 1988-89 included provision to cover post adjustment class 8 as from 1 January 1988 with an increase to class 9 effective 1 July. As shown in Figure 4, post adjustment class 9 became effective in 1987 so that the entry level on 1 January 1988 was more than a class higher than budgeted for. As a result, the 1988-89 biennium started with a budgetary shortfall of US\$ 9 million which is now part of the biennial costs. The International Civil Service Commission, at its Twenty-seventh Session in March 1988, decided to introduce some technical modifications to the method for the calculation of the post adjustment and, based on its review of the margin, to lift the freeze of the New York Index, effective 1 June 1988. On the basis of the above decisions, the fifth scaling back of the post adjustment index for Rome and other duty stations effective February 1988 was not implemented and the prevailing post adjustment class 9 reconfirmed with a further increase to class 10 as from August 1988.

At its Twenty-eighth Session in July 1988, the ICSC approved the findings of the November 1987 place-to-place survey conducted in Rome, and decided that the survey results should be implemented with effect from 1 August 1988. As the post adjustment multiplier resulting from the survey was found to be slightly lower (about 2 percent) than the multiplier actually paid in November 1987, transitional measures for Rome were applied by the ICSC producing a de facto freezing of the post adjustment situation until May 1989, at which time post adjustment points could be accumulated again.

As a result of the lifting of the freeze of the New York index on 1 June 1988, post adjustment class 9 was granted to New York effective 1 January 1989 and class 10 effective 1 May. The first increase in the New York post adjustment classification was a result of the movement of

the local cost-of-living index. The second increase was based on the recalculation of the margin following an increase in the UN Civil Service salaries (the comparator) which resulted in a rebasing and "scaling forward" of the level of indices at all other duty stations.

The impact of the above measure on the Rome post adjustment classification was the lifting of the transitional measures earlier than anticipated with the concurrent resumption of the normal operation of the system. At the prevailing rate of exchange, this resumption led to an increase of six multiplier points (reaching class 11) effective 1 June 1989 which required a budgetary provision of US\$ 1.2 million and added a further US\$ 3.6 million to the biennialization cost for 1990-91.

The combined effect of these measures led to the post adjustment situation which, calculated at the constant rate of exchange at which the budget had been approved, was higher than forecast in the 1988-89 Programme of Work and Budget. These changes were reported to the Finance Committee at its Sixty-second and Sixty-third Sessions.

The total net result of these changes, including its continuing impact in 1989, is covered under the biennialization element in the cost increases.

Taking this assessment as a base and according to the current rate of inflation in the host country, provision is made to cover in 1990-91 the cost equivalent of class 12 (multiplier 80) applicable at June 1990 and class 13 (multiplier 89) at May 1991.

Additional modifications to the post adjustment system can be anticipated as a consequence of the comprehensive review. These modifications will have to be implemented during the forthcoming biennium. It is not feasible, however, at this stage, to forecast in detail their impact on the FAO budget.

- (iii) General Service Salaries - The PWB 1988-89 was prepared assuming salary increases of between 4 and 5 percent occurring respectively in February 1987, February 1988 and February 1989. In line with the methodology for between-survey adjustments, as approved by the Council at its Eighty-sixth Session, two increases become due in 1987, in February (3.64 percent) and August (4.36 percent) respectively. The latter was announced in November, i.e. too late to be included as a biennialization cost in the PWB 1988-89.

A 4.28 percent increase in net salaries became effective 1 June 1988, and a further net increase of 5.23 percent in June 1989. This latter increase was coupled with an additional 1.93 percent increase due to tax rebates in line with the recent changes in the Italian fiscal legislation. The compounded effect on the salary and related allowances (language and non-resident allowances) which are paid as part of the salary package is covered under the biennialization cost.

Considering both the current rate of inflation in the host country and the automatic adjustment in the local tax rates to eliminate any fiscal drag, 7 percent increases can be forecast to occur in June 1990 and February 1991. A possible further 5 percent increase (i.e. without any revision of the applicable tax rates) might occur at the end of the forthcoming biennium (December 1991). Budgetary provision is calculated to cover such increases.

Unbudgeted additional staff costs will arise from the implementation of the results of the forthcoming salary survey in Rome, which has been rescheduled by the ICSC for March/April 1990. However, any increase resulting from the survey will offset the cost-of-living increase accumulated during the period between the last interim adjustment to salaries (June 1989) and the effective date of the survey. On a provisional basis, a net 6 percent increase has been provided for in the basic salaries and related allowances.

- (iv) Pension Fund Contributions - This item covers contributions payable by the Organization based on the pensionable remuneration scales for both Professional and General Service categories. The cost increase provision covers higher payments resulting from adjustments in the Pensionable Remuneration base as well as adjustments in the rate of contributions.

In accordance with the Regulations of the United Nations Staff Pension Fund, the scale of Pensionable Remuneration for the Professional and higher categories is to be revised whenever the net remuneration of such staff in New York is adjusted. Accordingly, and in line with recommendations of the ICSC and the Pension Board adopted by the General Assembly, the scale of Pensional Remuneration for Professional and higher categories was increased by 3.9 percent on 1 June 1988.

The granting of post adjustment classes 9 and 10 to New York resulted in a further increase in pensionable remuneration of 5.2 percent effective 1 January 1989 and 5.7 percent effective 1 May 1989. The implementation of the last adjustment which was not budgeted does require additional budgetary resources of US\$ 800 000 in 1990-91.

In addition, the FAO contribution to the Pension Fund was increased from 14.5 percent to 14.8 percent in July 1988 and to 15 percent effective July 1989.

While a provision is made in the 1990-91 PWB to cover possible increases in the pension fund contributions, precise provision is difficult to calculate considering the rapid changes which are taking place.

The Pensional Remuneration Scales for General Service staff are adjusted in line with the changes in the basic salary scales. Provision is therefore made to even the impact of the changes mentioned under the General Services Salaries above.

- (v) Social Security - The premium for the Basic Medical Insurance Plan (BMIP), which is shared between the staff and the Organization, increased by 54 percent in 1988, and on an average provisional basis, by a further 23 percent effective 1 January 1989, pending the finalization of arrangements for the introduction of a cost sharing system for the After Service Medical Scheme.

These increases are substantially in excess of the provision included in the PWB 1988-89; the resulting shortfall is being covered under the biennialization.

Provision is made for further increases of some 6 percent and 4 percent in 1990-91, always on the assumption that pensioners would be contributing to the cost of the After Service Medical Scheme.

- (vi) Dependency Allowances - Based on the decision of the General Assembly at its 1988 session, the children's allowance for staff in the Professional and higher categories has been increased by 50 percent (from US\$ 700 to US\$ 1 050 net per annum per child) effective 1 January 1989. For Rome and other duty stations where the Remuneration Correction Factor (RCF) is applied, the new amount has been established in local currency and therefore its dollar equivalent will vary.

The additional cost resulting from the implementation of the above measures is unbudgeted. In dollar terms, it may increase or decrease depending on whether the operational rate of exchange is below or above Lit. 1 240 to US\$ 1, i.e. the base rate used by the ICSC in establishing the new amount for Rome in Lire.

Dependency allowances for General Service staff increased in June 1988 and in June 1989 as a result of salary adjustments to which the level of these allowances is linked.

The combined biennialization impact of the above increases is covered in the cost calculations which also include provision for further increases payable to the General Service category in 1990-91 in line with basic salary adjustments.

- (vii) Education Grant - The General Assembly also decided at its 1988 session, to increase the maximum reimbursable amount for education expenses by 50 percent (from US\$ 4 500 to US\$ 6 750 per child per scholastic year).

For Rome and those duty stations where the RCF is applied, the new amount has also been established in local currency.

This additional cost is unbudgeted in 1988-89 and, in dollar terms, it may vary depending on whether the operational rate of exchange is below or above Lit. 1 400 to US\$ 1, i.e. the base rate used by the ICSC in establishing the new amount for Rome in Lire.

- (viii) Travel - No provision has been made for cost increases arising in 1990-91 on the premise that the additional costs will be absorbed through economy measures.

- (ix) Recruitment and Separation Costs - The present provision is considered to be almost sufficient to cover the expected costs taking into account the many posts hitherto frozen for which recruitment action is gradually taking place. A relatively small increase is, however, required to cover increasing payments for rental supplements and assignment allowances following the introduction of some modifications of the latter in late 1987.

- (x) General Service Separation Payments Scheme - The funding and payment requirements under the Separation Scheme are increasing in line with the salary adjustment. The increases in 1988-89 mentioned under the section on General Service Salaries above, call for an increase in the funding base, which has been calculated at US\$ 1 118 000. Provision is made for the funding requirement which is expected to arise in 1990-91. In accordance with the recommendation of the Finance Committee, the share of the separation payments chargeable to the annual budget remains at 50 percent.

GOODS AND SERVICES

- (xi) Consultants - No provision has been made for cost increases on the assumption that it will be possible to absorb such increases under the economy measures introduced in 1988-89.
- (xii) Duty Travel - No provision has been made for cost increases on the assumption that it will be possible to absorb such increases under the economy measures introduced in 1988-89.
- (xiii) Contractual Services - This category covers a wide variety of programme services provided under contractual arrangements such as interpretation, translation, contractual printing and binding, contributions to jointly-financed administrative activities, external auditors, etc. The overall expected increases in 1990-91 are estimated to reach some 3 percent for the biennium.
- (xiv) Supplies and Equipment and General Operating Expenses - These cover all supplies and equipment and items such as postal charges, cable, telephones, rent, utilities, cleaning and maintenance services, etc. The increases have been calculated taking account of the actual increase of rent as well as trends in prices separately for each item, in accordance with the methodology used for the other categories. The increase for Supplies and Equipment is 10 percent while the increase for General Operating Expenses is 8 percent.

- Summary

- 4.37 An amount of US\$ 76 600 000 is required as the total of cost increases, i.e. biennialization plus inflation. This includes a cost increase of US\$ 76 350 000 required to maintain the same level of programme plus an amount of US\$ 250 000 to bring the programme increases up to full costs in real 1990-91 terms. The cost increase on the 1990-91 programme base amounts to 15.39 percent.
- 4.38 It is also worth noting that 86 percent of the cost increases are for staff costs. They are of a mandatory nature, since they reflect entitlements and indexed increases foreseen under the prevailing contractual agreements governing staff payments, including the reductions applied to some of them.
- 4.39 It must be recognized that the present economic and currency situation adds considerably to the uncertainty regarding a forecast which has to cover cost developments over a period of almost three years from the time of preparation. Development of indices and price trends have therefore been watched very carefully and taken into account. The envisaged cost increases of US\$ 76 600 000 represent the best estimate of cost increases which can be projected on the basis of the information available.

Currency Factor

- 4.40 In recent biennia, all figures in the Summary Programme of Work and Budget and in the final document have been calculated at the rate adopted by the previous session of the Conference, pending a decision

by the next Conference at the time it adopts the Appropriations Resolution on the rate to be applied for the next biennium. Subsequent fluctuations are reflected in the Special Reserve Account to the extent that the maximum provision therein permits.

- 4.41 The figures in this document are, as usual, all included at the rate of Lit. 1 235 = US\$ 1, the rate adopted by the Conference at its Twenty-fourth Session, when approving the Programme of Work and Budget 1988-89.
- 4.42 Since the rate is likely to fluctuate in the coming months, the budget level could change considerably as shown in the following hypothetical examples:

Hypothetical 1990-91 Budget Level at different
Lire/US Dollar Rates

<u>Rate Lire/US Dollar</u>	<u>Total</u>
1 235	574 460 000
1 300	564 660 000
1 325	560 820 000
1 350	557 140 000
1 375	555 260 000
1 400	552 160 000
1 425	549 260 000
1 450	546 300 000

- 4.43 The Conference will be provided with the necessary updated information on rates as a basis for its decision. In the light of the Conference decision and the necessary adjustment of the budget level, the Director-General will subsequently make the necessary detailed adjustments in the budget appropriations.

Comparison with 1988-89

- 4.44 The following comparison is in accordance with the methodology recommended by the Finance Committee, and approved by the Conference at its Twentieth Session.

Comparison
(US\$ '000)

	1988-89 (at Lit.1 235 = US\$ 1)		1990-91 (at Lit.1 235 = US\$ 1)		1990-91 (at Lit.1 350 = US\$ 1)	
(1) Base	437 000		492 360		492 360	
(2) Cost Increase	54 165	12.39%	76 350	15.51%	59 030	11.99%
	<u>491 165</u>		<u>568 710</u>		<u>551 390</u>	
(3) Programme Increase	1 135	0.23%	5 500	0.97%	5 500	1.00%
(4) Cost Increase on (3)	60	0.01%	250	0.04%	250	0.05%
	<u>492 360</u>		<u>574 460</u>		<u>557 140</u>	

Financing

- 4.45 In 1990-91, Miscellaneous Income will again be available as a deduction to be made from the expenditure budget before reaching the assessment budget.
- 4.46 Miscellaneous Income is estimated at US\$ 12 000 000 for 1990-91. The estimate is deliberately conservative. The estimated breakdown of the total, compared with the breakdown of the Miscellaneous Income foreseen in the Programme of Work and Budget 1988-89, and the latest forecast for the actual income in 1988-89, is indicated below:

Miscellaneous Income 1990-91
(US\$ '000)

Item	1988-89 PWB	Latest 1988-89 Forecast	1990-91 Estimate
Interest on Bank Accounts and Deposits	5 020	6 100	5 090
Refund of Prior Periods' Expenditure and Lapse of Prior Periods' Unliqui- dated Obligations	4 500	5 300	4 500
Income from Commissary	50	50	50
Balance of Publications Revolving Fund	50	300	60
Other	2 100	4 300	2 300
TOTAL	<u>11 720</u> =====	<u>16 050</u> =====	<u>12 000</u> =====

The Miscellaneous Income foreseen for 1990-91 is somewhat below the actual income forecast for 1988-89, but in line with the amount budgeted for 1988-89. The major part of the 1990-91 income expected consists of interest earned on funds available for investment. The estimate for 1990-91 assumes an interest rate of 5.5 percent. Income derived from prior years' refunds is expected to be at the same level as budgeted in 1988-89.

- 4.47 The expected share of Member Nations in the financing of the total effective working budget for 1990-91 is indicated below:

	<u>1988-89</u> US\$ 000 (at Lit.1 235)	<u>1990-91</u> US\$ 000 (at Lit.1 235)	<u>1990-91</u> US\$ 000 (at Lit.1 350)
Total effective working budget	492 360	574 460	557 140
Less Miscellaneous Income	11 720	12 000	12 000
Member Nations' Contributions	480 640	562 460	545 140

- 4.48 At its Ninety-fifth Session, the Council considered the Scale of Contributions for 1990-91. The Council agreed with the view of the Sixty-fifth Session of the Finance Committee, and recommended that the Conference adopt for 1990-91 the Scale of Contributions derived directly from the United Nations Scale of Assessment in force in 1989.

DRAFT RESOLUTION FOR ADOPTION BY THE CONFERENCE

BUDGETARY APPROPRIATIONS 1990-91

THE CONFERENCE

Having considered the Director-General's Programme of Work and Budget and the conclusions of its Commissions;

1. Approves the Programme of Work proposed by the Director-General for 1990-91;

2. Resolves that for the financial period 1990-91:

(a) Appropriations 1/ are voted for the following purposes:

	US\$
Chapter 1 - General Policy and Direction	41 108 000
Chapter 2 - Technical and Economic Programmes	276 753 000
Chapter 3 - Development Support Programmes	88 861 000
Chapter 4 - Technical Cooperation Programme	67 767 000
Chapter 5 - Support Services	81 535 000
Chapter 6 - Common Services	17 836 000
Chapter 7 - Contingencies	600 000
Total effective working budget	574 460 000
Chapter 8 - Transfer to Tax Equalization Fund	69 300 000
Total Appropriations (Gross)	643 760 000
	=====

(b) The appropriations (gross) voted in paragraph (a) above, shall be financed by assessments on Member Nations, after deduction of Miscellaneous Income in the amount of US\$ 12 000 000, thus resulting in assessments against Member Nations of US\$ 631 760 000.

(c) In establishing the actual amounts of contributions to be paid by individual Member Nations, the assessment of each Member Nation shall be reduced by any amount standing to its credit in the Tax Equalization Fund provided that the credit of a Member Nation that levies taxes on the salaries, emoluments and indemnities received from FAO by staff members shall be reduced by the estimated amounts of such taxes to be reimbursed to the staff member by FAO.

(d) The contributions due from Member Nations in 1990 and 1991 shall be paid in accordance with the scale adopted by the Conference at its Twenty-fifth Session, which contributions, after the deduction of amounts standing to the credit of Member Nations in the Tax Equalization Fund, result in net amounts payable totalling US\$ as set out in Appendix to this Report.

1/ Calculated at Lit. 1 235 = US\$ 1; final rate to be determined by Conference and figures to be changed accordingly.

PROGRAMME BUDGET

SUMMARY OF ESTIMATES BY CHAPTER AND MAJOR PROGRAMME (\$000, All Funds)

Chapter and Major Programme	Regular Programme								Extra-Budgetary Funds	Total Funds	
	1988-89		Programme Change *	1990-91		1990-91		1990-91			
	Approved Budget			Base	Cost Increase	Budget		\$000		%	
	\$000	%				\$000	%				
1 General Policy and Direction											
1.1 Governing Bodies	13 157	2.7	0	13 157	2 487	15 644	2.7	0	15 644	1.2	
1.2 Policy, Direction and Planning	9 639	2.0	306	9 945	2 122	12 067	2.1	4 454	16 521	1.2	
1.3 Legal	3 687	0.7	0	3 687	837	4 524	0.8	62	4 586	0.3	
1.4 Liaison	7 722	1.6	(306)	7 416	1 457	8 873	1.5	416	9 289	0.7	
Total - Chapter 1	34 205	7.0	0	34 205	6 903	41 108	7.2	4 932	46 040	3.4	
2 Technical and Economic Programmes											
2.1 Agriculture	181 746	36.9	2 296	184 042	30 304	214 346	37.3	524 112	738 458	54.7	
2.2 Fisheries	30 725	6.2	592	31 317	5 554	36 871	6.4	66 139	103 010	7.6	
2.3 Forestry	20 995	4.3	648	21 643	3 893	25 536	4.4	115 962	141 498	10.5	
Total - Chapter 2	233 466	47.4	3 536	237 002	39 751	276 753	48.2	706 213	982 966	72.9	
3 Development Support Programmes											
3.1 Field Programme Liaison and Development	5 766	1.2	0	5 766	1 108	6 874	1.2	10 444	17 318	1.3	
3.2 Investment	21 118	4.3	(428)	20 690	3 165	23 855	4.2	17 600	41 455	3.1	
3.3 Special Programmes	1 722	0.3	0	1 722	226	1 948	0.3	355	2 303	0.2	
3.4 FAO Representatives	47 651	9.7	428	48 079	7 133	55 212	9.6	3 012	58 224	4.3	
3.9 Programme Management	820	0.2	0	820	152	972	0.2	1 051	2 023	0.1	
Total - Chapter 3	77 077	15.7	0	77 077	11 784	88 861	15.5	32 462	121 323	9.0	
4 Technical Cooperation Programme	63 148	12.8	1 750	64 898	2 869	67 767	11.8	0	67 767	5.0	
5 Support Services											
5.1 Information and Documentation	18 762	3.8	34	18 796	3 718	22 514	3.9	4 207	26 721	2.0	
5.2 Administration	46 770	9.5	180	46 950	9 563	56 513	9.8	21 410	77 923	5.8	
5.9 Programme Management	2 027	0.4	0	2 027	481	2 508	0.4	695	3 203	0.2	
Total - Chapter 5	67 559	13.7	214	67 773	13 762	81 535	14.1	26 312	107 847	8.0	
6 Common Services	16 305	3.3	0	16 305	1 531	17 836	3.1	4 843	22 679	1.7	
7 Contingencies	600	0.1	0	600	0	600	0.1	0	600	0.0	
GRAND TOTAL	492 360	100.0	5 500	497 860	76 600	574 460	100.0	774 762	1 349 222	100.0	

* Increase (Decrease)

INTRODUCTION

1. The structure of the programme budget, as first applied in the Programme of Work and Budget 1978-79, has seen some changes effected at the level of sub-programmes, as approved by the Programme Committee and the Council. The present programme structure is given in the table following this Introduction.

Structure of Narratives for Chapter 2

2. The Organization's programme is a unified one, executed jointly by Headquarters and Regional Offices. Provisions for the latter appear as separate sub-programmes within each programme. Information on Regional Office activities is given in the Regional Annex. The sub-programme narratives in the programme budget therefore cover the work of the Headquarters' divisions.
3. The sections on Medium-term Objectives and Focus of the Programme apply to the unified programme. In these sections, clear definition of objectives has been sought, which of necessity depend primarily on action by Member Governments themselves, and explicit descriptions of how the Organization's work is linked to that of other organizations and how it relates to that of the member countries to which it provides assistance.
4. FAO's computerized Programme Planning and Monitoring System (PLANSYS) is now well established and permits inter alia to translate the biennial budget into detailed plans for annual implementation, monitoring and reporting. At present, the system applies to Chapter 2: Technical and Economic Programmes, and is used by the Headquarters' technical divisions, and by the Regional Offices for their work under these programmes.
5. The preparation of annual workplans involves the breakdown of Chapter 2 sub-programmes into components or programme elements. One of the PLANSYS features is to capture information down to programme element level. This capability is used in the narratives and tables under the section "Plan of Action" to facilitate the consideration of proposals by FAO Governing Bodies. Each of these elements has a defined objective, which contributes to the broader objectives of the sub-programme. Elements tend to continue from one biennium to the next, as their objectives cannot generally be achieved in a short time period. However, each element is further broken down into activities, with clearly-specified outputs to be produced within the year or the biennium. Once activities have been defined, PLANSYS records the resources, or inputs, required to support the activities in a given year; the inputs generally correspond to the Organization's traditional objects of expenditure, i.e. staff resources, travel, meetings, publications, computer services, etc. The narratives under each substantive sub-programme explain the proposed application of resources and include mention of the main outputs expected to be delivered in the next biennium.

6. It is in the nature of an evolving programme to reflect some changes in the programme elements shown in the last Programme of Work and Budget document. This ranges from the merger of some hitherto distinct elements to, conversely, the split of large elements into component parts. Titles are revised, as necessary, to better reflect the scope of proposed activities. A strict comparison between those elements which were "active" two years ago and those proposed for implementation in 1990-91 is, therefore, not always possible. However, as necessary, base allocations have been traced as accurately as possible to identify the magnitude of net resource changes, as indicated in the standard tables under each sub-programme.

Field Programme Support and Programme Management

7. In accordance with past practice, resources allocated to individual programmes for support to the Field Programme, and for management of the programme, are shown under sub-programmes coded 2XX8 and 2XX9 respectively.
8. Field Programme activities are closely linked to the activities of the Regular Programme, both conceptually and operationally. "Field Programme Support" constitutes the Regular Programme contribution for technical backstopping of the Field Programme since support cost reimbursement from funding sources is essentially limited to coverage of non-technical backstopping. The provisions made for Field Programme Support apply to all external material and technical assistance activities, whether funded by UNDP, other programmes and institutions or Trust Funds, and involve technical backstopping of experts and consultants, and assistance in formulation and monitoring of projects. The relevant sub-programmes indicate the resources estimated to be required under each programme; these are primarily for staff costs, with some small provision made for related operational costs, such as travel.
9. Resources allocated for programme management generally cover the staff costs and related operational funds for divisional direction and programming, as well as provisions for those expenses (cables, photocopying, general office supplies) which cannot, for practical reasons, be assigned to substantive sub-programmes. The following tables show the provisions for these sub-programmes within Chapter 2:

Field Programme Support

(US\$ '000)

Sub-programme		1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget
2.1.1.8	Natural Resources	2 828	102	636	3 566
2.1.2.8	Crops	3 067	0	746	3 813
2.1.3.8	Livestock	2 074	(118)	475	2 431
2.1.4.8	Research & Technology Development	436	162	149	747
2.1.5.8	Rural Development	3 033	13	693	3 739
2.1.6.8	Nutrition	1 994	(421)	250	1 823
2.1.7.8	Food and Agricultural Information and Analysis	532	313	174	1 019
2.1.8.8	Food & Agricultural Policy	1 105	62	278	1 445
2.2.1.8	Fisheries Information	403	0	82	485
2.2.2.8	Fisheries Exploitation and Utilization	2 373	27	579	2 979
2.2.3.8	Fisheries Policy	409	0	64	473
2.3.1.8	Forest Resources and Environment	894	161	251	1 306
2.3.2.8	Forest Industries and Trade	611	(99)	122	634
2.3.3.8	Forest Investment and Institutions	658	(56)	138	740
Total		20 417	146	4 637	25 200

* Increase (Decrease)

Programme Management

(US\$ '000)

Sub-programme		1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget
2.1.1.9	Natural Resources	1 213	(52)	257	1 418
2.1.2.9	Crops	1 919	0	379	2 298
2.1.3.9	Livestock	974	(36)	174	1 112
2.1.4.9	Research & Technology Development	1 086	0	240	1 326
2.1.5.9	Rural Development	1 972	36	357	2 365
2.1.6.9	Nutrition	1 006	0	235	1 241
2.1.7.9	Food and Agricultural Information and Analysis	1 920	(125)	401	2 196
2.1.8.9	Food & Agricultural Policy	1 880	20	428	2 328
2.1.9	Programme Management	7 268	113	1 185	8 566
2.2.9	Fisheries	5 039	173	1 117	6 329
2.3.9	Forestry	4 246	580	1 071	5 897
Total		28 523	709	5 844	35 076

* Increase (Decrease)

PROGRAMME STRUCTURE

CHAPTER 1 - GENERAL POLICY AND DIRECTION

1.1 - Governing Bodies

1.1.1 Conference and Council

- 1.1.1.1 Conference
- 1.1.1.2 Council
- 1.1.1.3 Finance Committee
- 1.1.1.4 Programme Committee
- 1.1.1.5 Committee on Constitutional and Legal Matters
- 1.1.1.6 Other Council Committees
- 1.1.1.7 Regional Conferences
- 1.1.1.8 Meetings of Permanent Representatives
- 1.1.1.9 McDougall Memorial Lecture, B.R. Sen and A.H. Boerma Awards

1.1.2 Conference Services

1.2 - Policy, Direction and Planning

1.2.1 Director-General's Office

1.2.2 Programme Planning, Budgeting and Evaluation

- 1.2.2.1 Programme Planning and Budgeting
- 1.2.2.2 Evaluation

1.2.3 Audit

- 1.2.3.1 Internal Audit
- 1.2.3.2 External Audit

1.3 - Legal

1.4 - Liaison

1.4.1 Inter-Agency Affairs

1.4.2 Liaison and Protocol

- 1.4.2.1 Headquarters
- 1.4.2.2 North America
- 1.4.2.3 United Nations

CHAPTER 2 - TECHNICAL AND ECONOMIC PROGRAMMES

2.1 - Agriculture

2.1.1 Natural Resources

- 2.1.1.1 Assessment and Planning
- 2.1.1.2 Farming Systems Development
- 2.1.1.3 Soil Management and Fertilizers
- 2.1.1.4 Water Development and Management
- 2.1.1.5 Conservation and Reclamation
- 2.1.1.6 Sustaining Resource Potentials
- 2.1.1.7 Regional Offices
- 2.1.1.8 Field Programme Support
- 2.1.1.9 Programme Management

2.1.2 Crops

- 2.1.2.1 Genetic Resources
- 2.1.2.2 Crop Improvement and Management
- 2.1.2.3 Seeds
- 2.1.2.4 Crop Protection
- 2.1.2.5 Agricultural Engineering and Prevention of Food Losses
- 2.1.2.6 Food and Agricultural Industries
- 2.1.2.7 Regional Offices
- 2.1.2.8 Field Programme Support
- 2.1.2.9 Programme Management

2.1.3 Livestock

- 2.1.3.1 Grassland, Forage and Feed Resources
- 2.1.3.2 Animal Health
- 2.1.3.3 Genetic Resources
- 2.1.3.4 Dairy Development
- 2.1.3.5 Meat Development
- 2.1.3.6 Livestock Production
- 2.1.3.7 Regional Offices
- 2.1.3.8 Field Programme Support
- 2.1.3.9 Programme Management

2.1.4 Research and Technology Development

- 2.1.4.1 Research Development
- 2.1.4.2 Agricultural Applications of Isotopes and Biotechnology
- 2.1.4.3 AGRIS and CARIS
- 2.1.4.4 Remote Sensing and Agrometeorology
- 2.1.4.5 Environment and Energy
- 2.1.4.7 Regional Offices
- 2.1.4.8 Field Programme Support
- 2.1.4.9 Programme Management

CHAPTER 2 - TECHNICAL AND ECONOMIC PROGRAMMES (Cont'd)

2.1 - Agriculture (Cont'd)

2.1.5 Rural Development

- 2.1.5.1.1 Agricultural Education, Extension and Training
- 2.1.5.1.2 Development Support Communications
- 2.1.5.2 Agrarian Reform and Land Settlement
- 2.1.5.3 Rural Institutions and Employment
- 2.1.5.4 Women in Agriculture and Rural Development
- 2.1.5.5 Marketing
- 2.1.5.6 Credit
- 2.1.5.7 Regional Offices
- 2.1.5.8 Field Programme Support
- 2.1.5.9 Programme Management

2.1.6 Nutrition

- 2.1.6.1 Food and Nutrition Assessment
- 2.1.6.2 Nutrition Programmes
- 2.1.6.3 Food Control and Consumer Protection
- 2.1.6.4 Nutrition Policy at Country Level
- 2.1.6.5 Joint FAO/WHO Food Standards Programme (Codex Alimentarius)
- 2.1.6.7 Regional Offices
- 2.1.6.8 Field Programme Support
- 2.1.6.9 Programme Management

2.1.7 Food and Agricultural Information and Analysis

- 2.1.7.1 Statistical Processing and Analysis
- 2.1.7.2 Situation and Outlook
- 2.1.7.3 Food Information and Early Warning System
- 2.1.7.4 Statistical Development
- 2.1.7.7 Regional Offices
- 2.1.7.8 Field Programme Support
- 2.1.7.9 Programme Management

2.1.8 Food and Agricultural Policy

- 2.1.8.1 Global Perspective Studies
- 2.1.8.2 Agricultural Policy Analysis
- 2.1.8.3 Commodity Policies and Trade
- 2.1.8.4 World Food Security
- 2.1.8.5 Agricultural Planning Assistance
- 2.1.8.7 Regional Offices
- 2.1.8.8 Field Programme Support
- 2.1.8.9 Programme Management

2.1.9 Programme Management

- 2.1.9.1 Agriculture Department
- 2.1.9.2 Economic and Social Policy Department
- 2.1.9.7 Regional Offices

CHAPTER 2 - TECHNICAL AND ECONOMIC PROGRAMMES (Cont'd)

2.2 - Fisheries

2.2.1 Fisheries Information

- 2.2.1.1 Aquatic Sciences and Fisheries Information
- 2.2.1.2 Fishery Data and Statistics
- 2.2.1.7 Regional Offices
- 2.2.1.8 Field Programme Support

2.2.2 Fisheries Exploitation and Utilization

- 2.2.2.1 Marine Resources and Environment
- 2.2.2.2 Inland Fisheries and Aquaculture
- 2.2.2.3 Fish Production
- 2.2.2.4 Fish Utilization and Marketing
- 2.2.2.7 Regional Offices
- 2.2.2.8 Field Programme Support

2.2.3 Fisheries Policy

- 2.2.3.1 Fisheries Policy and Planning
- 2.2.3.2 International Coordination and Liaison
- 2.2.3.7 Regional Offices
- 2.2.3.8 Field Programme Support

2.2.9 Programme Management

- 2.2.9.1 Departmental Direction
- 2.2.9.2 Divisional Direction
- 2.2.9.7 Regional Offices

2.3 - Forestry

2.3.1 Forest Resources and Environment

- 2.3.1.1 Development and Management of Forests
- 2.3.1.2 Tree Improvement and Plantations
- 2.3.1.3 Conservation and Wildlife
- 2.3.1.4 Forest Food, Fodder and Fuelwood Systems
- 2.3.1.5 Tropical Forestry Action Plan
- 2.3.1.7 Regional Offices
- 2.3.1.8 Field Programme Support

2.3.2 Forest Industries and Trade

- 2.3.2.1 Development of Forest Industries
- 2.3.2.2 Trade and Marketing
- 2.3.2.3 Forest Harvesting and Transport
- 2.3.2.7 Regional Offices
- 2.3.2.8 Field Programme Support

CHAPTER 2 - TECHNICAL AND ECONOMIC PROGRAMMES (Cont'd)

2.3 - Forestry (Cont'd)

2.3.3 Forest Investment and Institutions

- 2.3.3.1 Training and Institutions
- 2.3.3.2 Investment Planning and Statistics
- 2.3.3.3 Forest Policies and Information
- 2.3.3.4 Community Forestry Development
- 2.3.3.7 Regional Offices
- 2.3.3.8 Field Programme Support

2.3.9 Programme Management

- 2.3.9.1 Departmental Direction
- 2.3.9.2 Divisional Direction
- 2.3.9.7 Regional Offices

CHAPTER 3 - DEVELOPMENT SUPPORT PROGRAMMES

3.1 - Field Programme Liaison and Development

3.2 - Investment

- 3.2.1 FAO/World Bank Cooperative Programme
- 3.2.2 Investment Support Programme
- 3.2.9 Programme Management

3.3 - Special Programmes

- 3.3.1 Freedom-from-Hunger Campaign/Action for Development
- 3.3.2 André Mayer Fellowships

3.4 - FAO Representatives

3.9 - Programme Management

CHAPTER 4 - TECHNICAL COOPERATION PROGRAMME

CHAPTER 5 - SUPPORT SERVICES

5.1 - Information and Documentation

- 5.1.1 Public Information
- 5.1.2 Library
- 5.1.3 Publications

CHAPTER 2 - TECHNICAL AND ECONOMIC PROGRAMMES

2.1 - Agriculture

2.1.1 Natural Resources

- 2.1.1.1 Assessment and Planning
- 2.1.1.2 Farming Systems Development
- 2.1.1.3 Soil Management and Fertilizers
- 2.1.1.4 Water Development and Management
- 2.1.1.5 Conservation and Reclamation
- 2.1.1.6 Sustaining Resource Potentials
- 2.1.1.7 Regional Offices
- 2.1.1.8 Field Programme Support
- 2.1.1.9 Programme Management

2.1.2 Crops

- 2.1.2.1 Genetic Resources
- 2.1.2.2 Crop Improvement and Management
- 2.1.2.3 Seeds
- 2.1.2.4 Crop Protection
- 2.1.2.5 Agricultural Engineering and Prevention of Food Losses
- 2.1.2.6 Food and Agricultural Industries
- 2.1.2.7 Regional Offices
- 2.1.2.8 Field Programme Support
- 2.1.2.9 Programme Management

2.1.3 Livestock

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- 2.1.3.2 Animal Health
- 2.1.3.3 Genetic Resources
- 2.1.3.4 Dairy Development
- 2.1.3.5 Meat Development
- 2.1.3.6 Livestock Production
- 2.1.3.7 Regional Offices
- 2.1.3.8 Field Programme Support
- 2.1.3.9 Programme Management

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- 2.1.4.2 Agricultural Applications of Isotopes and Biotechnology
- 2.1.4.3 AGRIS and CARIS
- 2.1.4.4 Remote Sensing and Agrometeorology
- 2.1.4.5 Environment and Energy
- 2.1.4.7 Regional Offices
- 2.1.4.8 Field Programme Support
- 2.1.4.9 Programme Management

CHAPTER 2 - TECHNICAL AND ECONOMIC PROGRAMMES (Cont'd)

2.1 - Agriculture (Cont'd)

2.1.5 Rural Development

- 2.1.5.1.1 Agricultural Education, Extension and Training
- 2.1.5.1.2 Development Support Communications
- 2.1.5.2 Agrarian Reform and Land Settlement
- 2.1.5.3 Rural Institutions and Employment
- 2.1.5.4 Women in Agriculture and Rural Development
- 2.1.5.5 Marketing
- 2.1.5.6 Credit
- 2.1.5.7 Regional Offices
- 2.1.5.8 Field Programme Support
- 2.1.5.9 Programme Management

2.1.6 Nutrition

- 2.1.6.1 Food and Nutrition Assessment
- 2.1.6.2 Nutrition Programmes
- 2.1.6.3 Food Control and Consumer Protection
- 2.1.6.4 Nutrition Policy at Country Level
- 2.1.6.5 Joint FAO/WHO Food Standards Programme (Codex Alimentarius)
- 2.1.6.7 Regional Offices
- 2.1.6.8 Field Programme Support
- 2.1.6.9 Programme Management

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- 2.1.7.2 Situation and Outlook
- 2.1.7.3 Food Information and Early Warning System
- 2.1.7.4 Statistical Development
- 2.1.7.7 Regional Offices
- 2.1.7.8 Field Programme Support
- 2.1.7.9 Programme Management

2.1.8 Food and Agricultural Policy

- 2.1.8.1 Global Perspective Studies
- 2.1.8.2 Agricultural Policy Analysis
- 2.1.8.3 Commodity Policies and Trade
- 2.1.8.4 World Food Security
- 2.1.8.5 Agricultural Planning Assistance
- 2.1.8.7 Regional Offices
- 2.1.8.8 Field Programme Support
- 2.1.8.9 Programme Management

2.1.9 Programme Management

- 2.1.9.1 Agriculture Department
- 2.1.9.2 Economic and Social Policy Department
- 2.1.9.7 Regional Offices

CHAPTER 2 - TECHNICAL AND ECONOMIC PROGRAMMES (Cont'd)

2.2 - Fisheries

2.2.1 Fisheries Information

- 2.2.1.1 Aquatic Sciences and Fisheries Information
- 2.2.1.2 Fishery Data and Statistics
- 2.2.1.7 Regional Offices
- 2.2.1.8 Field Programme Support

2.2.2 Fisheries Exploitation and Utilization

- 2.2.2.1 Marine Resources and Environment
- 2.2.2.2 Inland Fisheries and Aquaculture
- 2.2.2.3 Fish Production
- 2.2.2.4 Fish Utilization and Marketing
- 2.2.2.7 Regional Offices
- 2.2.2.8 Field Programme Support

2.2.3 Fisheries Policy

- 2.2.3.1 Fisheries Policy and Planning
- 2.2.3.2 International Coordination and Liaison
- 2.2.3.7 Regional Offices
- 2.2.3.8 Field Programme Support

2.2.9 Programme Management

- 2.2.9.1 Departmental Direction
- 2.2.9.2 Divisional Direction
- 2.2.9.7 Regional Offices

2.3 - Forestry

2.3.1 Forest Resources and Environment

- 2.3.1.1 Development and Management of Forests
- 2.3.1.2 Tree Improvement and Plantations
- 2.3.1.3 Conservation and Wildlife
- 2.3.1.4 Forest Food, Fodder and Fuelwood Systems
- 2.3.1.5 Tropical Forestry Action Plan
- 2.3.1.7 Regional Offices
- 2.3.1.8 Field Programme Support

2.3.2 Forest Industries and Trade

- 2.3.2.1 Development of Forest Industries
- 2.3.2.2 Trade and Marketing
- 2.3.2.3 Forest Harvesting and Transport
- 2.3.2.7 Regional Offices
- 2.3.2.8 Field Programme Support

CHAPTER 2 - TECHNICAL AND ECONOMIC PROGRAMMES (Cont'd)

2.3 - Forestry (Cont'd)

2.3.3 Forest Investment and Institutions

- 2.3.3.1 Training and Institutions
- 2.3.3.2 Investment Planning and Statistics
- 2.3.3.3 Forest Policies and Information
- 2.3.3.4 Community Forestry Development
- 2.3.3.7 Regional Offices
- 2.3.3.8 Field Programme Support

2.3.9 Programme Management

- 2.3.9.1 Departmental Direction
- 2.3.9.2 Divisional Direction
- 2.3.9.7 Regional Offices

CHAPTER 3 - DEVELOPMENT SUPPORT PROGRAMMES

3.1 - Field Programme Liaison and Development

3.2 - Investment

- 3.2.1 FAO/World Bank Cooperative Programme
- 3.2.2 Investment Support Programme
- 3.2.9 Programme Management

3.3 - Special Programmes

- 3.3.1 Freedom-from-Hunger Campaign/Action for Development
- 3.3.2 André Mayer Fellowships

3.4 - FAO Representatives

3.9 - Programme Management

CHAPTER 4 - TECHNICAL COOPERATION PROGRAMME

CHAPTER 5 - SUPPORT SERVICES

5.1 - Information and Documentation

- 5.1.1 Public Information
- 5.1.2 Library
- 5.1.3 Publications

CHAPTER 5 - SUPPORT SERVICES (Cont'd)

5.2 - Administration

- 5.2.1 Administrative Services
- 5.2.2 Financial Services
- 5.2.3 Computer Services
- 5.2.4 Personnel Services

5.9 - Programme Management

- 5.9.1 General Affairs and Information
- 5.9.2 Administration and Finance

CHAPTER 6 - COMMON SERVICES

CHAPTER 7 - CONTINGENCIES

CHAPTER 8 - TRANSFER TO TAX EQUALIZATION FUND

Chapter 1-GENERAL POLICY AND DIRECTION

SUMMARY OF ESTIMATES BY PROGRAMME (\$000, All Funds)

		Regular Programme						
Major Programme/Programme		1988-89 Approved Programme Budget	1990-91 Change*	1990-91 Base	Cost Increase	1990-91 Budget	Extra Budgetary Funds	Total Funds 1990-91
1.1	<u>Governing Bodies</u>							
1.1.1	Conference and Council	9 197	0	9 197	1 628	10 825	0	10 825
1.1.2	Conference Services	3 960	0	3 960	859	4 819	0	4 819
	Major Programme 1.1 Total	13 157	0	13 157	2 487	15 644	0	15 644
1.2	<u>Policy, Direction and Planning</u>							
1.2.1	Director-General's Office	3 782	0	3 782	815	4 597	874	5 471
1.2.2	Programme Planning, Budgeting and Evaluation	3 943	162	4 105	918	5 023	1 258	6 281
1.2.3	Audit	1 914	144	2 058	389	2 447	2 322	4 769
	Major Programme 1.2 Total	9 639	306	9 945	2 122	12 067	4 454	16 521
1.3	<u>Legal</u>	3 687	0	3 687	837	4 524	62	4 586
1.4	<u>Liaison</u>							
1.4.1	Inter-Agency Affairs	2 635	(162)	2 473	529	3 002	120	3 122
1.4.2	Liaison and Protocol	5 087	(144)	4 943	928	5 871	296	6 167
	Major Programme 1.4 Total	7 722	(306)	7 416	1 457	8 873	416	9 289
CHAPTER 1 TOTAL		34 205	0	34 205	6 903	41 108	4 932	46 040

* Increase (Decrease)

Major Programme 1.1 - GOVERNING BODIES

Programme 1.1.1 - Conference and Council

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost, Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
1.1.1.1 Conference	3 224	0	1 023	4 247	0.0	0
1.1.1.2 Council	2 739	0	369	3 108	0.0	0
1.1.1.3 Finance Committee	727	0	64	791	0.0	0
1.1.1.4 Programme Committee	458	0	11	469	0.0	0
1.1.1.5 Committee on Constitutional and Legal Matters	214	0	17	231	0.0	0
1.1.1.6 Other Council Committees	130	0	0	130	0.0	0
1.1.1.7 Regional Conferences	1 303	0	122	1 425	0.0	0
1.1.1.8 Meetings of Permanent Representatives	365	0	19	384	0.0	0
1.1.1.9 McDougall Memorial Lecture, B.R. Sen and A.H. Boerma Awards	37	0	3	40	0.0	0
Programme 1.1.1 Total	9 197	0	1 628	10 825	0.0	0

* Increase (Decrease)

Nature of the Programme

1. This programme covers the direct costs in relation to sessions of FAO Governing Bodies, Regional Conferences and meetings of Permanent Representatives in Rome, including documentation, interpretation and other short-term staff, and travel of Government Representatives in accordance with the Financial Regulations. Expenditures related to the B.R. Sen and A.H. Boerma Awards as well as the McDougall Memorial Lecture are also covered by this programme.

Change in Resources

2. After reductions in the last three biennia, no change is proposed. The range of services to be provided to FAO Governing Bodies is expected to be similar to that in the current biennium.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region	Fund	Unit
Global	9 400 RP	10 825 GIC
Africa	314	
Asia and Pacific	356	
Near East	200	
Europe	200	
Latin America	355	
TOTAL	10 825	10 825

Programme 1.1.2 - Conference Services

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
1.1.2.0 Conference Services	3 960	0	859	4 819	49.9	0
Programme 1.1.2 Total	3 960	0	859	4 819	49.9	0

* Increase (Decrease)

Nature of the Programme

1. This programme, which is of a continuing nature, provides secretariat services to the Conference and Council and supervision of in-house interpretation staff. In addition, ongoing functions are to schedule, coordinate and support other FAO sessions and training activities at Headquarters and abroad, and to process circular letters and other formal correspondence from the Director-General to Member Governments.

Change in Resources

2. No change is proposed.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region	Fund		Unit	
Global	4 819	RP	4 819	GIC
Africa	0			
Asia and Pacific	0			
Near East	0			
Europe	0			
Latin America	0			
TOTAL	4 819		4 819	

Major Programme 1.2 - POLICY, DIRECTION AND PLANNING

Programme 1.2.1 - Director-General's Office

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
1.2.1.0 Director-General's Office	3 782	0	815	4 597	48.0	874
Programme 1.2.1 Total	3 782	0	815	4 597	48.0	874

* Increase (Decrease)

Nature of the Programme

This programme covers the immediate Offices of the Director-General and the Deputy Director-General. No change is made for 1990-91.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region	Fund		Unit
Global	5 471	RP	4 597 ODG 5 471
Africa	0	Govt. Programmes	576
Asia and Pacific	0	UNDP	298
Near East	0		
Europe	0		
Latin America	0		
TOTAL	5 471		5 471

Programme 1.2.2 - Programme Planning, Budgeting and Evaluation

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
1.2.2.1 Programme Planning and Budgeting	2 765	0	639	3 404	40.0	480
1.2.2.2 Evaluation	1 178	162	279	1 619	16.0	778
Programme 1.2.2 Total	3 943	162	918	5 023	56.0	1 258

* Increase (Decrease)

Nature of the Programme

1. This programme covers a range of activities in connection with the formulation and monitoring of implementation of the biennial Programme of Work and Budget, including related advisory services to FAO's Governing Bodies and top management. It also serves as focal point for all evaluation activities. For instance, periodic analysis of progress and results are required to assist the Director-General in making timely adjustments to current programmes. Evaluation of past and current activities, including field projects, is required to provide feedback and essential information for preparation of future programmes and budgets. Programme management information systems enable budgetary control and programme implementation monitoring at both central and decentralized levels. Developments in other agencies of the UN system are taken into account and demands for inter-agency coordination and for contributions to inter-agency reports emanating from various external units and bodies are met as required.

Objectives and Plan of Action

2. Under instructions from the Director-General, the Office will lead the Organization-wide formulation, implementation and evaluation of long-, medium- and short-term objectives, programmes and budgets and detailed workplans, reporting thereon to the Director-General and to Conference and Council Committees, including in particular the Programme and Finance Committees. As required by the evolving resource situation and external factors, programme and budgetary adjustments will be formalized. External demands for coordination activities and reports will be dealt with. The Office will continue to act as focal point for contacts with the Joint Inspection Unit (JIU) and to ensure coordinated inputs to JIU reports and their handling. Developments concerning extra-budgetary resources and support costs reimbursements from extra-budgetary programmes will continue to be closely monitored. The Office

will continue its function of clearing-house for correct budget formulation of field projects. Computerized programme planning and monitoring and budgetary control systems for the Office's own use and/or Organization-wide use will continue to be developed. Interface with other major administrative information systems will be ensured.

3. All elements of FAO's comprehensive evaluation procedures will be actively pursued. Auto-evaluation reports submitted by FAO programme managers will be analysed. The Office will prepare the Review of the Regular Programme; will contribute to preparation of the Review of Field Programmes; will continue to organize selective external evaluations of specific programmes; and will also conduct ad hoc reviews of specific programmes or programme elements. Field project and programme evaluation missions will aim at improving the overall approach to technical assistance as well as the effectiveness of individual projects.

Change in Resources

4. In response to repeated calls for the strengthening of FAO evaluation activities, a new P-5 post of Senior Evaluation Officer is proposed.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region	Fund		Unit
Global	6 281	RP	5 023 PBE
Africa	0	Govt. Programmes	577
Asia and Pacific	0	UNDP	606
Near East	0	WFP	75
Europe	0		
Latin America	0		
TOTAL	6 281		6 281

Programme 1.2.3 - Audit

Sub-Programme		1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
1.2.3.1	Internal Audit	1 506	144	389	2 039	26.0	1 404
1.2.3.2	External Audit	408	0	0	408	0.0	918
Programme 1.2.3 Total		1 914	144	389	2 447	26.0	2 322

* Increase (Decrease)

Nature of the Programme

1. Internal Audit is the mechanism by which management can ensure that internal controls over programme delivery are subject to independent and continuous review. By examining the evidence of internal controls over delivery, audit review provides an assessment of the continuing adequacy and proper functioning of such internal controls and the orderliness of operations. In so doing, the audit process provides a basis for assisting management in further improving the effectiveness and efficiency of the Organization, particularly through the introduction and development of advanced management systems and methods.
2. The scope of internal audit work covers not only the financial records, but all underlying processes which include the methods of budgetary and management information control as well as procurement, recruitment, custody and safeguarding of assets, and the implementation of the field projects. The extent of this task is exemplified by the scale, diversity and nature of FAO's operations which are performed in many developing countries and embrace several thousand activities and projects.

Objectives and Plan of Action

3. The objectives are to ensure the propriety of the Organization's operations from the viewpoint of financial regularity; conformity with appropriations or provisions voted by the Conference and the purposes, rules and provisions relating to the funds concerned; and to assist management in the continuing improvement of economy, effectiveness and efficiency.
4. The audit strategy will continue to comprise a combination of financial and management audits involving systems-based review and evaluation of the Organization's financial and administrative arrangements. This work will be performed at Headquarters, Regional and Country Offices and field projects.

Change in Resources

5. The proposed change in resources is to cover increased requirements for clerical and secretarial assistance.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit	
Global	4 769	RP	2 447	AUD (Int.)	3 443
Africa	0	Govt. Programmes	862	AUD (Ext.)	1 326
Asia and Pacific	0	UNDP	705		
Near East	0	WFP	755		
Europe	0				
Latin America	0				
TOTAL	4 769		4 769		4 769

Major Programme 1.3 - L E G A L

Programme	1988-89 Approved Budget	Programme Change*	Cost Increase	1990-91 Approved Budget	Work Years	Extra- Budgetary Funds
1.3.0 Legal	3 687	0	837	4 524	50.0	62
Major Programme 1.3 Total	3 687	0	837	4 524	50.0	62

* Increase (Decrease)

Nature of the Programme

1. The programme provides legal services both for the internal management of the Organization and as technical assistance to Member Nations. The main thrusts of the programme continue to be twofold. On the one hand, the provision of legal services on constitutional and treaty affairs is aimed at ensuring that FAO's activities are carried out on a sound legal and constitutional basis which is consistent with the Basic Texts and the status of FAO as an intergovernmental organization in the UN system. On the other hand, legal services delivered under the programme in the area of development law are aimed at providing Member Nations with advice and assistance on such matters as the formulation of legislation, restructuring of institutions and the negotiation of agreements. These services will assist them in establishing a framework for policy formulation and giving concrete effect to their adopted policies in the food and agriculture sector.

Objectives and Plan of Action

2. The programme is in general of a continuing nature. A limited reorganization of the Legal Office has been undertaken to ensure that the programme is responsive to changing needs and is delivered in an integrated manner.
3. In the area of constitutional and treaty law, the Legal Office will continue to:
 - (a) advise the Director-General and the Organization's Governing and other Statutory Bodies, as well as departments, divisions, Regional Offices and the World Food Programme, on the legal and constitutional questions arising out of their activities;
 - (b) represent FAO in judicial proceedings before international tribunals and in negotiations to settle disputes;
 - (c) draft international conventions, agreements and other instruments relevant to the Organization's mandate and carry out the Director-General's depositary functions;

- (d) deal with the legal aspects of relations with the Host Government, with other governments and with international organizations;
 - (e) service the Committee on Constitutional and Legal Matters (CCLM).
4. The focal point for these services is the Office of the Legal Counsel.
5. The Legislation Branch is the focal point for research and assistance in development law and, in cooperation with other units in FAO, for related institutional questions. The Legislation Branch will continue to provide the following services:
- (a) provision of assistance to FAO Member Nations and advice to FAO technical divisions, projects and programmes on legal aspects of the management and development of food and agriculture resources;
 - (b) preparation of studies on issues of development law within the mandate of FAO;
 - (c) training in legal disciplines related to food and agriculture, particularly in regard to developing countries, and participation in related seminars, workshops and similar activities.
6. Legal assistance will continue to be provided in all fields of FAO's competence, with particular emphasis on fisheries, pesticides and land resources. Significant increases in activity over 1988-89 levels are also expected in legal aspects of environment protection, bio-diversity watershed management and women's participation in agriculture. Other fields of activity (national and international legal aspects of water, food, plant protection, forestry and wildlife) will continue at present levels.
7. The Documentation and Research Unit will provide computerized documentation and research services in support of all aspects of the Legal Programme, and in particular on:
- (a) collection and dissemination of legislative information; and
 - (b) collection and research of information on constitutional and treaty affairs, including access to data banks on administrative tribunal law.
8. In addition, a new P-5 Senior Legal Officer post under the direct supervision of the Legal Counsel will focus on bio-diversity and environment law coordination, drawing together existing activities in both Services of the Legal Office.

Change in resources

9. No change is proposed in the overall provision. The cost of the new post on bio-diversity will be offset by reduction of secretarial staff.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region	Fund		Unit
Global	4 586	RP	4 524 LEG 4 586
Africa	0	WFP	62
Asia and Pacific	0		
Near East	0		
Europe	0		
Latin America	0		
TOTAL	4 586		4 586

Major Programme 1.4 - L I A I S O N

Programme 1.4.1 - Inter-Agency Affairs

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
1.4.1.0 Inter-Agency Affairs	2 635	(162)	529	3 002	26.0	120
Programme 1.4.1 Total	2 635	(162)	529	3 002	26.0	120

* Increase (Decrease)

Nature of the Programme

1. In discharging its constitutional functions, the Organization must cooperate closely with a wide range of agencies within the UN system and other organizations, the activities of which have a bearing on the food and agriculture sectors. The UN system includes a large number of organizations and bodies having responsibilities for economic and social matters relating to the food and agriculture sectors for which FAO has a direct responsibility. In the same manner that organizations of the UN system participate closely with FAO in the area of food and agriculture, FAO in turn is called upon to contribute to a wide variety of programmes and activities of other organizations. Accordingly, FAO participates in and contributes to the work of the governing bodies of other organizations, notably the General Assembly and ECOSOC, in addition to briefing its own Governing Bodies on developments elsewhere in the UN system. FAO is regularly requested to contribute substantively to the preparation of global conferences, system-wide programmes and reports. At the same time, FAO needs to maintain, on a day-to-day basis, close cooperation and working relations with the organizations of the UN system, including GATT, World Bank and IMF. In a wider context, it is essential for FAO to keep abreast of developments and trends with regard to the broader aspects of multilateral cooperation.
2. At the inter-secretariat level, FAO needs to respond to a substantial number of requests which have system-wide implications, stemming from intergovernmental bodies in the UN system, provide information and engage in joint activities, consultations and other contacts. FAO participates in the Administrative Committee on Coordination (ACC) and its subsidiary machinery. Most of this work is related to coordination issues in programme matters, operational activities, personnel matters and financial and budgetary questions. At the same time, FAO needs to maintain direct bilateral cooperation with sister agencies and programmes.

3. FAO responds to requests from governments for emergency assistance in the agriculture, livestock and fisheries sectors, in countries affected by exceptional natural or man-made calamities. For that purpose the Office for Special Relief Operations (OSRO), which is placed under this programme, is responsible for assessing relief and short-term rehabilitation needs, mobilizing and coordinating donor and other support and implementing relief operations. OSRO works closely with WFP, UNDRO, UNHCR, UNICEF, as well as non-governmental organizations (NGOs) and other private aid organizations.
4. Lastly, FAO maintains relations with an increasing number of inter-governmental organizations outside the UN system and with international non-governmental organizations working in food and agriculture and related fields.

Objectives

5. The activities under this programme are of continuing nature. They are designed to ensure that inter-agency initiatives and activities are in conformity with the policies and programmes of the Organization and the directives of FAO Governing Bodies. The Office for Inter-Agency Affairs (IAA) will therefore continue to:
 - (a) promote FAO's cooperation with the organizations of the UN system and with other intergovernmental and international non-governmental organizations;
 - (b) ensure the Organization's response to decisions of the UN General Assembly, ECOSOC and other intergovernmental bodies of the UN system which concern the food and agriculture sector, or which are otherwise related to the Organization's work;
 - (c) maintain inter-secretariat cooperation and working contacts with organizations of the UN system, where appropriate, through the Liaison Offices in New York and Geneva;
 - (d) ensure FAO participation in the work of ACC and its subsidiary machinery, including preparations for the Director-General's participation in the Committee;
 - (e) act as focal point within FAO for information related to the UN system and other intergovernmental organizations and distribute information;
 - (f) provide the Director-General with policy advice on WFP matters and assist in the handling of requests for emergency food aid;
 - (g) ensure the coordination of OSRO's emergency relief action with other FAO activities and with related operations carried out by other organizations;
 - (h) coordinate FAO representation at meetings of other organizations, both within and outside the UN system.

Plan of Action

6. Recent developments in other organizations of the UN system will be reported regularly to the Conference and Council. Many subjects dealt with by FAO have inter-agency implications. It is essential to monitor the consistency of decisions in other fora with FAO's own actions. The Office for Inter-Agency Affairs, in close cooperation with the appropriate technical departments and divisions, will continue to serve as focal point for the exchange of information in this regard. Accordingly, IAA will continue to ensure that FAO departments and divisions are made fully aware of decisions taken in other intergovernmental fora which might have implications for their work, as well as ensuring that the work of FAO is made fully known to those bodies.
7. Several matters in particular will need to be monitored during the biennium. Among these are: preparation of a new International Development Strategy (IDS) for the Fourth United Nations Development Decade, Special Session of the General Assembly in 1990 devoted to international economic cooperation, implementation of the United Nations Programme of Action for African Economic Recovery and Development (UN-PAAERD 1986-90), implementation of ECOSOC resolution on the revitalization of the Economic and Social Council, Uruguay Round of Multilateral Trade Negotiations, Second United Nations Conference on the Least Developed Countries (1990), and system-wide cooperation on issues related to environment, including preparations for the proposed World Conference on Environmental Development. Relations with other intergovernmental bodies outside the UN system will continue to be followed up systematically. Flexibility will be used in ensuring the Organization's response in an appropriate and cost-effective way to the external calls made upon it, in accordance with FAO's own programme of work.
8. FAO will continue at the intergovernmental level to contribute, within its own specialized fields, to the formulation and implementation of system-wide programmes and activities. At the inter-secretariat level, FAO will participate in the work of ACC and its subsidiary machinery.
9. Cooperation will continue with organizations dealing with emergency situations and FAO will respond, as necessary and feasible, to resolutions of the General Assembly on the subject. A major concern is to provide the most efficient and economical modalities for coordinated emergency relief. OSRO will continue to provide emergency and rehabilitation assistance, with support from the Technical Cooperation Programme (TCP) and special contributions from donor countries and agencies. This requires close collaboration between OSRO, the TCP Unit, the FAO Global Information and Early Warning System and the Disaster Relief Service of WFP.

10. Other ongoing responsibilities include: coordinating FAO's contributions to system-wide reports; monitoring developments in other inter-governmental fora and promoting inter-agency agreements and arrangements; acting as the focal point for FAO's dealings with other inter-governmental bodies; advising the Director-General on WFP matters, particularly relating to requests for emergency food aid; regular contacts with the organizations and bodies of the UN system including the regional economic commissions, as well as with other bodies outside the UN system; screening of invitations to FAO to attend meetings of other organizations; arranging for FAO representation and briefing of staff attending meetings.
11. The programme will draw, as far as possible, on the services of the Liaison Offices in New York (LUNO) and Geneva (LGEN) in particular for inputs to, attendance at and reporting on meetings of the UN system in New York and Geneva.

Change in Resources

12. The abolition of one P-5 post and reduction in secretarial support staff are proposed as a deliberate cost-cutting measure, despite the considerable workload linked to coordination activities with the UN system.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit
Global	3 122	RP	3 002	IAA 3 122
Africa	0	Govt. Programmes	120	
Asia and Pacific	0			
Near East	0			
Europe	0			
Latin America	0			
TOTAL	3 122		3 122	3 122

Programme 1.4.2 - Liaison and Protocol

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
1.4.2.1 Headquarters	1 118	(144)	249	1 223	20.1	296
1.4.2.2 North America	1 871	0	327	2 198	30.0	0
1.4.2.3 United Nations	2 098	0	352	2 450	26.0	0
Programme 1.4.2 Total	5 087	(144)	928	5 871	76.1	296

* Increase (Decrease)

Liaison and Protocol at Headquarters

1. The ongoing activities relate to providing advice on all protocol aspects of relations with Member and non-Member Nations. These activities include liaison with Permanent Representatives and missions accredited to FAO. Liaison with the Host Government also relates to the implementation of the Headquarters' Agreement and the status and privileges of the Organization, the Permanent Representatives, visiting government officials and staff. Visits to FAO of Heads of State and other high-ranking personalities of Member Nations are organized. The Liaison and Protocol Branch also handles formal correspondence with Member Nations, and ensures the issuance of travel documents, visas and identity cards for FAO staff.

Liaison for North America

2. The functions are to assist FAO Headquarters in formulating and implementing policy and maintaining communications and cooperation between FAO and the North American governments and public and with Washington-based international organizations, specifically:
 - (a) to represent the Director-General before the Governments of Canada and of the United States of America and Washington-based international organizations;
 - (b) to provide general information, also in support of World Food Day, about worldwide food problems, rural development and FAO activities to the North American governments and non-governmental organizations;

- (c) to identify, analyse and report to Headquarters, developments regarding governmental policies, legislation, programmes, events and public opinion developments in the region, relevant to the objectives and programmes of FAO;
- (d) to provide the secretariat and servicing for the Consultative Sub-Committee on Surplus Disposal in support of the Organization's worldwide activities in monitoring food aid programmes, including the World Food Programme;
- (e) to carry out a wide range of administrative support functions in North America, including recruitment and appointment activities, fellowship administration, purchasing and contracts, income tax administration, communications, mail distribution, pouch, travel and financial services;
- (f) to participate, on behalf of FAO, in governmental and non-governmental groups and meetings, and in particular, to work with private voluntary groups involved in fighting hunger;
- (g) to maintain liaison, particularly on behalf of the Regional Representative for Latin America, with the Organization of American States and other inter-American organizations based in Washington;
- (h) to arrange official visits and consultations in North America for FAO Headquarters, regional and country staff.

Liaison at United Nations Headquarters and Geneva

- 3. The main function is to assist in policy and decision-making at FAO Headquarters in relation to developments in the UN system, mainly through representation at meetings at UN Headquarters, in Geneva and elsewhere, through liaison with representatives of Member Nations of the UN and Specialized Agencies, and through liaison with the secretariats of these organizations.
- 4. Specific activities are to:
 - (a) represent FAO at intergovernmental meetings, notably meetings of the UN General Assembly and the Economic and Social Council, (ECOSOC) as well as related Committees, functional Commissions and subsidiary bodies such as the Committee for Programme and Coordination; keep in touch with delegations on programme and policy issues; report on such meetings to FAO Headquarters for information and use in policy and decision-making;
 - (b) represent FAO at inter-agency meetings as needed; maintain working relations with all organizations and entities of the UN system in New York and Geneva and their secretariats, and with the representatives of the Specialized Agencies stationed there; keep Headquarters informed about developments and, in turn, keep these organizations and bodies up to date with FAO programmes and action;
 - (c) maintain liaison with intergovernmental, non-governmental and private institutions, including foundations, associated with UN system activities and development generally;

- (d) contribute to public information and public relations at UN Headquarters, work with delegations and committees on information questions, and deal with local public information requests.
- (e) provide services to visiting FAO officers including briefing them on developments related to the purpose of their mission, e.g., for attendance at UN system meetings, or contacts on matters related to technical assistance with various programmes and entities of the UN, such as UNDP, UNICEF, UNFPA, UNCTAD, etc.

Change in Resources

5. The elimination of one P-4 Professional post in the Liaison and Protocol Branch is proposed.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region	Fund		Unit	
Global	6 167	RP	5 871	GIC 1 437
Africa	0	Govt. Programmes	296	LGEM 759
Asia and Pacific	0			LNOR 2 280
Near East	0			LUNO 1 691
Europe	0			
Latin America	0			
TOTAL	6 167		6 167	

Chapter 2-TECHNICAL AND ECONOMIC PROGRAMMES

SUMMARY OF ESTIMATES BY PROGRAMME (\$000, All Funds)

		Regular Programme						
Major Programme/Programme		1988-89	1990-91		Cost	1990-91	Extra	Total
		Approved Budget	Programme Change*	Base	Increase	Budget	Budgetary Funds	Funds 1990-91
2.1	<u>Agriculture</u>							
2.1.1	Natural Resources	16 730	689	17 419	2 733	20 152	95 578	115 730
2.1.2	Crops	27 710	145	27 855	4 522	32 377	167 616	199 993
2.1.3	Livestock	16 284	59	16 343	2 600	18 943	59 086	78 029
2.1.4	Research and Technology Development	15 319	761	16 080	2 282	18 362	15 899	34 261
2.1.5	Rural Development	28 066	141	28 207	4 507	32 714	121 415	154 129
2.1.6	Nutrition	15 177	151	15 328	2 498	17 826	5 712	23 538
2.1.7	Food and Agricultural Information and Analysis	25 811	561	26 372	5 014	31 386	17 538	48 924
2.1.8	Food and Agricultural Policy	29 381	(324)	29 057	4 963	34 020	40 851	74 871
2.1.9	Programme Management	7 268	113	7 381	1 185	8 566	417	8 983
	Major Programme 2.1 Total	181 746	2 296	184 042	30 304	214 346	524 112	738 458
2.2	<u>Fisheries</u>							
2.2.1	Fisheries Information	4 506	153	4 659	944	5 603	1 857	7 460
2.2.2	Fisheries Exploitation and Utilization	14 347	106	14 453	2 483	16 936	62 885	79 821
2.2.3	Fisheries Policy	6 833	160	6 993	1 010	8 003	1 397	9 400
2.2.9	Programme Management	5 039	173	5 212	1 117	6 329	0	6 329
	Major Programme 2.2 Total	30 725	592	31 317	5 554	36 871	66 139	103 010
2.3	<u>Forestry</u>							
2.3.1	Forest Resources and Environment	5 382	468	5 850	899	6 749	79 498	86 247
2.3.2	Forest Industries and Trade	3 808	(197)	3 611	670	4 281	19 834	24 115
2.3.3	Forest Investment and Institutions	7 559	(203)	7 356	1 253	8 609	16 630	25 239
2.3.9	Programme Management	4 246	580	4 826	1 071	5 897	0	5 897
	Major Programme 2.3 Total	20 995	648	21 643	3 893	25 536	115 962	141 498
CHAPTER 2 TOTAL		233 466	3 536	237 002	39 751	276 753	706 213	982 966

* Increase (Decrease)

Major Programme 2.1 - AGRICULTURE

Long-term Trends

1. World agriculture is confronted by six major and often interrelated challenges:
 - imbalances in the world food and agricultural system;
 - rapid growth in population in relation to natural resource availability;
 - slow growth in agricultural productivity;
 - inadequate growth in purchasing power;
 - limits to sustainable exploitation, arising from direct pressures on natural resources or indirect ones resulting from climate change;
 - increasing complexity of agricultural policy planning.

These call for a concerted response by the international community and action by national governments and will consequently shape FAO's work for some time.

2. The future increases in world food production appear set to continue to exceed population growth for the next decade or so, unless setbacks resulting from widespread droughts or other large-scale natural or man-made calamities were to be more than temporary. These trends at the global level will, however, continue to be accompanied by localized shortages at regional, national and sub-national levels. Food consumption in many areas can be expected to continue to fall short of acceptable standards of nutrition.
3. Thus, long-term trends point to continued imbalance in the world food system. On the one side, and notwithstanding the present overall balance between supplies and demand, some regions and commodities will continue to be troubled by surpluses that cannot find commercial outlets, unless subsidized. On the other, some of the poorer countries and regions will still be faced with the combined problems of low nutritional levels, rapidly rising populations, inadequate growth in both food production and incomes, and the impossibility of meeting food requirements through commercial imports. For such countries, there is little alternative to giving top priority to increasing agricultural production, as a means both of raising food consumption levels and of

reviving their economies. However, the likelihood of overall slow economic growth in some major developing regions and stagnation in per caput incomes may constitute a major obstacle.

4. The total demand for food and agricultural products in the developing countries (including China) is estimated, according to the revised AT 2000 projections, to rise by about 3 percent a year between 1985 and 2000. If this increase is to be met mainly from domestic production, output in many countries, especially in Africa, will have to expand at rates exceeding 3 percent a year. During the 15 years up to 1988, less than a third of the developing countries, and very few of them in Africa, achieved such rates of growth.
5. This likely increase in total demand will be accompanied by continued changes in its structure, in response to higher incomes where and when they occur and the almost universal rapid urbanization. Some further shift in preferences is therefore likely from traditional locally-produced cereals and root crops to such foods as wheat, rice, sugar, vegetable oils and livestock products. However, it will almost certainly be slower than in the past. Food policies biased in favour of urban consumers and imports are largely being modified. The institutional and infrastructural weaknesses that have limited the ability of rural producers to feed the urban areas are also gradually being remedied. Slower economic growth and foreign exchange constraints will prevent a resumption of the rapid expansion in food imports experienced in the seventies.
6. FAO's Fifth World Food Survey, completed in 1985, estimated that the number of seriously undernourished people in the developing market economies rose slightly during the seventies. They had, however, decreased as a proportion of the population in each of the developing regions. According to the more recent estimates of AT 2000, this trend was arrested in the first half of the eighties in the wake of economic difficulties. The projections to the year 2000 indicate that the proportion of the affected population may still decline somewhat, though there would be no decline in the absolute number of undernourished people. It is now widely recognized that, if their numbers are to be substantially reduced, increased food production in the developing countries will not, by itself, be enough. Access to adequate food by the poor can only be assured by increases in their incomes. If their food needs are not translated into effective demand, production growth, however fast, is unlikely to effectively counter malnutrition, though faster-growing agricultural production and productivity are themselves important factors in raising incomes.
7. There is also greater recognition of the need to resolve the traditional conflict between the interests of consumers, who want food at prices they can afford, and producers, who require remunerative prices to induce more production. When economic incentives to producers are substantially increased, it will be necessary at the same time to adopt selective measures to safeguard the food consumption of the poorest and most vulnerable population groups.
8. For certain countries, the achievement of increased output would require agricultural productivity, particularly in terms of yields of many crop and livestock commodities, to rise more rapidly than in the past. A number of countries in Sub-Saharan Africa, for example, would

find such an increase difficult to achieve, since merely to keep up with population growth, yields of some crops would have to rise at twice the historic rate. Greater emphasis will therefore be required on research and development and on those price and non-price incentives which encourage the adoption of improved technology.

9. The environmental consequences of high population growth and slow productivity growth, together with trends of energy use, etc., lead to unsustainable agricultural, forestry and fisheries development. In many countries, unless this trend is reversed, there can be no sustainable economic development. The present situation is already serious, but the future could become alarming. Firstly, of an increase of 83 million hectares in arable land, projected in AT 2000 by the end of the century, much will be relatively marginal in quality and therefore in need of careful management. Secondly, net deforestation rates for tropical forests could be some 10 million hectares per year, with increased risks of erosion and flooding. Finally, climatic change arising from carbon dioxide and other man-made emissions are likely to affect agricultural production in a number of ways, but may leave few, if any, countries unaffected in the course of the next century.
10. One of the dominant trends since the forties, and particularly since the sixties, has been the growing interdependence of the world economy overall, and of world agriculture and agro-industries. This trend will continue, and bring increasing complexity in agricultural policy planning in a number of ways. First, the progressive transition from extensive subsistence-oriented production systems to intensive farming systems will require more off-farm inputs. Secondly, there are growing inter-sectoral linkages at the national level, due to changes in macro-economic policy in the context of structural adjustment, etc.. Thirdly, additional policy concerns need to be integrated into agricultural policy, particularly those relating to food and nutrition, environment protection and sustainable development.

Long-term Goals and Strategies

11. Seven major long-term goals and strategies are described in the following paragraphs. They apply to all regions, both developing and developed, with the obvious differences in perceptions and impact of problems in relation to each. Their achievement will require continuous efforts in the policy area. In this context, the upgrading of FAO's capability to assist member countries in the analysis of options and in the formulation and implementation of national policies will be essential.
12. The principal goal in food and agriculture is, of course, the elimination of hunger and malnutrition. However, progress towards a substantial reduction in their incidence would already be an important step forward. The achievement of this goal requires progress toward each of the other goals set out below. It also depends heavily on developments outside the agricultural sector, including improvements in the international economic situation. Although not a permanent solution, nutrition intervention programmes will have to play an important part for many years to come. In many countries, effective policies to slow down population growth could greatly assist. Even in those countries which have the natural resource base to support much bigger populations, current high population growth rates impose unattainable targets in such crucial areas as food supply, health care, housing and education, leaving scarce resources for production and income growth.

13. Promoting food production in the developing countries and improving resource management - Further extension of cultivated areas but, even more, big increases in yields are required in the developing countries. In many countries the opportunities for bringing new land into cultivation are very limited or virtually exhausted, leaving them only the option of using their land more intensively. Improving resource productivity and management is, therefore, a primary goal of FAO. The application of modern technology, including not only manufactured inputs but also the greater use of natural inputs (such as organic fertilizers) from within agriculture itself, will steadily become an even more important factor in agricultural growth. However, many of the technological requirements of small farmers in low-income countries have not yet been satisfactorily met. The development of appropriate technologies will require a better understanding of their needs by strengthened national agricultural research systems. The uptake of improved technology will also be greatly dependent on appropriate economic and institutional policies in such fields as producer incentives, the removal of disincentives, the availability and effective delivery of inputs, services and consumer goods, and marketing infrastructure. While the spotlight inevitably falls on crop production, improved resource productivity and management is equally important for forestry, fisheries and the livestock sector. In the developed countries, the objective of improved resource management is made easier by the needed slower growth of production with the consequent lesser pressure for further intensification.
14. Conservation of natural resources and environmental protection - Increased production must no longer be at the cost of irreversible damage to the land and water resource base on which it depends. International and national actions must, therefore, be oriented towards sustainable development. This is especially important in particularly fragile environments, such as arid and semi-arid areas subject to desertification, and mountainous and other areas of high rainfall in the tropics. In such areas, more stable production systems are required for the modification of shifting cultivation and bush fallow practices, and nomadic pastoralism that are no longer viable as a result of population pressure. The most suitable farming systems will often include agroforestry elements. The conservation of the world's limited remaining forest resources is essential to protect the environment for future agricultural production. The conservation of fishery stocks is also rapidly becoming an urgent matter. The conservation of plant and animal genetic resources will remain essential for future food and agricultural production. The particular concerns of developed regions include the ecological and health effects of the use of pesticides, and the build-up of nutrients in groundwater due to the intensive use of mineral fertilizers. There is hardly any field in which solutions depend so heavily on regional and international cooperation. The conceptual and political framework for international action has been greatly strengthened by the World Commission on Environment and Development, and is to be followed up by individual Member Nations, by FAO and the other organizations concerned, in the years ahead. A close working relationship with UNEP will be maintained.
15. Reduction of rural poverty, promotion of equity and development of human resources - The programme of action adopted by WCARRD in 1979 provides governments with guidelines on measures to achieve these inter-related goals and ensure that rural people, women as well as men, participate in development and share equitably in its benefits,

including the economic, social, cultural, institutional, environmental and human aspects. The increasing role of international and national NGOs in the development effort must be given due recognition in all such actions. The critical importance of the human factor in development is now universally acknowledged. While progress has been made in the last two or three decades, the persistent weakness of institutions for agriculture, forestry and fisheries is still the main constraint to development in many areas, most particularly in Africa. Training at all levels, combined with extension programmes, and the strengthening of delivery systems, together constitute a high-priority goal for many developing countries, and thus for FAO. The reduction of rural poverty through equitable access to production resources must be a central concern of governments, if they are to limit the social and political imbalances that result from large-scale unemployment, landlessness, and the widening of inequalities between rich and poor and urban and rural people. This will involve adjustment of the frequent policy bias against rural areas, and the adoption of structural reforms concerning access to land, water, technologies and production resources aimed at the provision of remunerative employment opportunities on as wide a scale as possible. Fuller integration of rural areas into national development efforts will help to ensure that private as well as public investment and services are attracted to these areas.

16. Policy harmonization and improvement of the international trading system for agricultural commodities - This is a prominent objective on the international policy agenda. In most low-income countries, agricultural exports are vital for foreign exchange earnings, incomes and employment, and to pay for imports of food and agricultural raw materials and other goods that cannot be produced domestically. In parallel, agricultural policies in many developed countries must find the right balance between policies to maintain farm incomes and preserve rural communities, and those to prevent the re-emergence of structural surpluses of several major agricultural products as well as to control budget expenditures and achieve more efficient overall use of resources. It is thus essential that the complex, interlinked issues of international trade, food security and market fluctuations should be dealt with effectively. The heavy protection of agriculture, by means of measures which distort trade, should be progressively reduced so as to establish a fair and market-oriented agricultural trading system. At the same time, strengthened and more operationally-effective rules and disciplines should be established for agriculture, and the fullest liberalization of trade in tropical products, including in their processed and semi-processed forms, should be pursued. The Uruguay Round of multilateral trade negotiations, under the auspices of the General Agreement on Tariffs and Trade (GATT), provides the opportunity for these objectives to be vigorously pursued. These negotiations also provide the opportunity to eliminate non-tariff barriers to agricultural trade by harmonizing national sanitary and phytosanitary regulations on the basis of the international recommendations of bodies and instruments such as the FAO/WHO Codex Alimentarius Commission, the International Office of Epizootics, and the International Plant Protection Convention. Developing countries must also be enabled to increase their exports of both agricultural and non-agricultural products, especially to the many markets that are now heavily protected or which they have "lost" because of the export subsidies of others. At the same time, they must take greater advantage of the opportunities for increased trade between themselves. These are likely to remain, for many years, key policy concerns for world agriculture and thus for FAO. Close cooperation is to be observed with UNCTAD and GATT.

17. World food security - This goal - the achievement of adequate supplies of basic foods, stability of supplies and access to them by all people - requires the achievement of all the other goals, and has external as well as internal dimensions. It also requires improvements in early warning systems and preparedness to meet emergencies. Internally, it requires much greater emphasis on the four "i"s of agricultural development, namely incentives, inputs, institutions and infrastructure, as identified in the FAO study, African agriculture: the next 25 years. It is also crucial to raise the overall rate of economic growth and improve the incomes of the poor. Externally, it requires progress towards the previous goal, because some developing countries will be dependent on agricultural export earnings to pay for food imports. It also depends on progress on international agreements concerning market stability, financial flows, buffer stocks, emergency reserves and food aid. Policies for macro-economic adjustment and for the management of foreign debt should not penalize the prospects for renewed economic growth nor entail great sacrifices by the poor.
18. Nutritional improvements, food safety and standards together constitute an area that has been of basic importance for FAO since its creation and remains equally vital today. It was recognized by the 1943 Hot Springs Conference that the root cause of malnutrition is poverty, but the reduction of poverty is proceeding slowly in most developing regions and in some areas poverty appears to be on the rise. Increased attention needs to be devoted to special measures which will reduce malnutrition in vulnerable groups, even in the absence of a general improvement in living standards. At the same time, much remains to be learned about the relationship between diet and health, and there are increasing concerns about the impact of diets common to many industrialized countries. Food safety and standards is of considerable importance for both national food industries and international trade. This is FAO's "consumer-oriented" goal. Work in these areas is to be pursued in close cooperation with WHO and UNICEF.
19. In the pursuit of all these goals, comprehensive and reliable information on agriculture, forestry, fisheries and nutrition will remain an essential corner-stone of FAO's strength. This is one of the best examples of an area where the work of FAO is closely bound with the efforts of Member Nations. Generally speaking, the Organization does not directly collect information at field level but relies on national sources. Consequently, improvement in the quality of the information disseminated by FAO depends, to a large extent, on the strengthening of the national institutions concerned - and this in turn can be greatly assisted by FAO, particularly in the case of the least developed countries, or those which continue to suffer from major institutional weaknesses. The Organization itself also has a great deal to do in strengthening its internal capacity to handle, analyze and disseminate information of constantly-increasing complexity and sophistication.
20. All of the above goals are obviously closely interdependent. Their achievement also depends on another kind of interdependence: that between the developed and developing worlds. The support of the international community is required, not only in trade matters but also for considerable resource transfers between developed and developing countries.
21. By the year 2000, total annual gross investment requirements in the agriculture of the developing countries excluding China are estimated,

according to the 1987 revision of AT 2000, in the range of US\$ 150 to 200 billion (at 1985 prices). These investment needs will be met mainly from domestic sources, but will need to be complemented by financial aid from developed countries and the richer of the developing countries. The current difficult worldwide financial and economic situation must not be allowed to deflect the international community from its commitment to the pursuit of development.

22. The difficult economic situation of many developing countries, stemming particularly from heavy external debt burdens, protectionism in their export markets, limited growth of demand and low prices for their traditional export commodities, and inappropriate policies, has seriously affected their agricultural and rural development performance. The domestic adjustment programmes designed to improve this situation need to place greater focus on growth-generating aspects; give more attention to removing the constraints in implementation, especially with regard to institutional reforms; adopt a more balanced approach to the role of prices, giving also sufficient attention to the importance of inputs and infrastructure development; and ensure the active participation of the poor in the development process. Such programmes also need to be complemented by improvements in the international economic environment, and by more adequate external resources, channelled specifically to productive investments in research and extension, input delivery systems and infrastructure development which would benefit a wider spectrum of the farming population.
23. Agriculture must retain its basic role of sustaining balanced economic development and helping to mitigate the negative impact on welfare of slower growth or stagnation in other sectors of the economy. To this end, developing countries should continue to strengthen the formulation and implementation of food and agricultural development plans within the framework of their overall national development objectives. In this context, FAO's role is essentially that of supporting national capabilities, helping countries implement plans and policies, monitor changes, collecting and disseminating information and identifying emerging issues. This is a multidisciplinary effort requiring cooperative action between FAO and its member countries, other organizations and a wide range of NGOs/INGOs.
24. The efforts of the developing countries should be supported not only by additional, stable transfers of external resources, but also by an improved international institutional framework. The latter should include greater market stability, security of agricultural supplies, national and international action on food security, and improved access to world markets for the agricultural exports of developing countries. Such changes will be difficult to achieve and also will take time, but they have already been urgent for many years.
25. The relative importance of the long-term goals varies both nationally and regionally. However, they have sufficient universality to provide a basic framework for FAO's programme of work and its medium-term objectives.
26. FAO's medium-term objectives indicate how and by what means it is proposed to support the efforts of Member Governments to move towards such long-term goals during the medium-term period of about six years. These objectives take account of previous decisions by Member Governments, as well as of the fact that FAO does not work in isolation but

in close cooperation (sometimes with a leadership role) with many other organizations. They are much broader and of longer duration than the priorities set for each biennium in the Programme of Work and Budget.

27. The medium-term objectives are presented according to the programme structure of Major Programme 2.1: Agriculture. They include reference to the many different modalities appropriate for carrying out the work.

Programme 2.1.1 - Natural resources

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
2.1.1.1 Assessment and Planning	2 216	(23)	289	2 482	15.3	27 321
2.1.1.2 Farming Systems Development	1 809	0	227	2 036	11.6	3 476
2.1.1.3 Soil Management and Fertilizers	2 433	(9)	368	2 792	19.5	29 531
2.1.1.4 Water Development and Management	1 995	(35)	327	2 287	17.8	19 655
2.1.1.5 Conservation and Reclamation	1 518	5	214	1 737	11.8	8 216
2.1.1.6 Sustaining Resource Potentials	0	560	51	611	2.0	761
2.1.1.7 Regional Offices	2 718	141	364	3 223	32.1	0
2.1.1.8 Field Programme Support	2 828	102	636	3 566	40.2	6 618
2.1.1.9 Programme Management	1 213	(52)	257	1 418	18.0	0
Programme 2.1.1 Total	16 730	689	2 733	20 152	168.3	95 578

* Increase (Decrease)

Medium-term Objectives

1. The growing concerns for the sustainability of agricultural production, combined with persistent food deficits in some countries and over-production in others, set the scene for the Natural Resources Programme. Rational and sustainable resource utilization is the ultimate goal. While global land and water resources are adequate to meet future demands, serious problems arise from their uneven distribution and varying potentials, compared with food and other agricultural production requirements. Many countries in the developing world are already cultivating all lands which can be safely used for annual crops. Not only are opportunities for bringing new lands under cultivation limited, but much of the remaining land reserve is required for other uses, i.e. grazing or forestry and has special management, infrastructure and conservation problems. Moreover, in many areas, existing systems of production can no longer meet demands on a sustainable basis. Large areas are subject to misuse and over-exploitation, and the full consequences of nutrient depletion are yet to be felt. In rainfed areas, fallow periods have been shortened below safe limits and

marginal lands are being put under cultivation under pressure to meet food demands. On irrigated lands, improper water use and management lead to waterlogging, salinity and/or sodicity. The net result is that production falls short of the potential and there is widespread degradation of land. Rationalization of resource use, matching potentials and demands within the dictates of sustainability, is the prerequisite for future growth of agriculture.

2. As a consequence of the foregoing, the overall objective of the Natural Resources Programme continues to be the more productive and efficient use of land, water and farm inputs, to meet present and future food and agriculture demands, on a sustainable basis. Major aspects are: quantification of land and water resource potentials; farming systems development; balanced soil and plant nutrition systems; optimum efficiency of water use for irrigation; halting and reversing of land degradation; and promotion of sustainable land-use practices. All sub-programmes' objectives correspond to the overall goal of sustainable development.
3. Specific objectives include the systematic assembly and analysis of information on land and water resources and crop requirements, and incorporation into databases and geographical information systems for the determination of alternative land-use policy options. Emphasis will be given to: the needs for improved use of scarce water resources in both irrigated and rainfed areas; integrated land and water planning; and optimum resource use and management, taking into full account comparative advantages. Detailed water resources assessments, also at national and sub-regional levels, will be undertaken and contribute to water development and management policies and strategies.
4. In order to motivate and assist small-scale farmers to raise their productivity on a sustainable basis, the socio-economic and technical constraints on their existing farming systems will continue to be examined. Improved systems should seek inspiration from the technologies and practices of the better farmers, and will incorporate new technologies adapted to local conditions through on-farm research. These technologies will often include elements of agroforestry. Multidisciplinary teams working at the local and national levels should collaborate closely with the rural population concerned, in order to facilitate the introduction of such systems and develop better support services. Basic farm level analysis will also be applied to study the micro-effects of national fiscal, financial and agricultural sector Policies.
5. Progress towards balanced plant nutrient systems is dependent on a number of factors, four of which are given particular emphasis in this Programme. Firstly, the increased awareness of the degradation of many agricultural areas by continuous removal of plant nutrients without adequate replenishment. Secondly, the promotion of integrated plant nutrition approaches, including mineral fertilizers, biological nitrogen fixation and recycled organic materials, designed for entire cropping systems. Thirdly, the more efficient and economic use of mineral fertilizers, based on sound plant nutrition strategies and national fertilizer policies. Fourthly, the maintenance and improvement of physical and biological soil conditions through improved tillage practices and crop residue management. These actions constitute major contributions to the achievement of sustainable production.

6. Especially in arid and semi-arid areas, agricultural production, food security and, indeed the quality of life itself, are dependent on the availability and reliability of water resources, e.g. rainwater, surface water, groundwater and/or stored water supplies. While the consequences of drought and desertification have attracted widespread attention, endemic water shortages have not been addressed sufficiently in international and national strategies and action plans for environmental improvement and sustainable development. There are growing limitations on the quantity of water available at reasonable cost to support both food production and other water-dependent activities. Consequently, medium-term objectives include not only the most efficient use of presently-available supplies, but also the development of new supplies in light of future demands, potential resources and economic factors. Specific components are: advice on irrigation development and improvement; increased efficiency and improved water management techniques; use of waste water and rehabilitation measures, both for increasing production and meeting environmental standards, including disease vector control.
7. A further main objective is to halt and reverse current degradation of soil and water resources and improve health aspects of land and water development projects. Essential prerequisites for reversing land degradation include planning and implementation of soil and water conservation policies and programmes to demonstrate and ensure widespread application of sound conservation practices which are compatible with local socio-economic conditions. The increased and safe use of marginal quality water and the reduction of health hazards are integral parts of the programme.
8. In addition to specific discipline-based objectives, an overall objective is being introduced, namely sustaining natural resource potentials. Although it would only begin by covering some of the complex issues involved, a new sub-programme is established to provide an interdisciplinary nucleus and a recognizable FAO contribution to sustainable development. New activities on collection, analysis, design and dissemination of information on sustainable farming practices will assist Member Nations in introducing corrective actions and responding to the possible adverse effects of climate change on agriculture, forestry and fisheries.

Focus of the Programme

9. Agricultural production depends on climate, available soil and water resources and the knowledge of how to combine these natural attributes with local conditions of input availability and markets. The activities of the Natural Resources Programme aim at providing improved knowledge and methods to member countries for more efficient and sustainable use of available land, water and other production inputs. These activities include the development of computer-aided resource data management systems, together with the analysis and dissemination of such data for agricultural policy formulation. There is a strong field orientation throughout the programme. Major areas of work are natural resources assessment and planning, farming systems development, soil management and fertilizers, water development and management, conservation and reclamation, and sustaining resource potentials.
10. Responsibility for the implementation of Sub-programmes 2.1.1.1, 2.1.1.3, 2.1.1.4, 2.1.1.5 and 2.1.1.6 rests with the Land and Water

Development Division (AGL). The Agricultural Services Division (AGS) is responsible for Sub-programme 2.1.1.2 and the provisions for 2.1.1.8 and 2.1.1.9 are shared between the two divisions. Sub-programme 2.1.1.7 covers the activities of the Regional Offices and Joint Divisions under the programme.

11. The well-established work of FAO on soil mapping, land evaluation, assessment of crop and population potentials by agro-ecological zones (AEZ), will continue especially at the country level. Future emphasis will be on methods for integrating ecological and economic attributes into natural resource assessments. This will be complemented by the wide application of recent work on land-use planning methodology under the aegis of the Interdepartmental Working Group on Land-use Planning. The FAO Geographic Information System (GIS) will continue to be utilized in cooperation with the World Bank, UNEP, ISRIC and concerned member countries. Although still to be fully developed, it is being increasingly used to assess land and water resource potentials, and for training in AEZ applications.
12. To date, information on water resource potentials, necessary for development of irrigated agriculture in arid and semi-arid areas, has centered on the availability of sub-surface water and rainfall. Modern techniques, such as the GIS and satellite imagery interpretation, however, now permit more sophisticated evaluation of small basin surface water potential, which has so far been under-utilized in many countries.
13. The application of a farming systems approach to a range of development efforts is relatively new. Most work to date has concentrated upon identifying promising medium-term research programmes designed to increase the productivity of a given farming system. FAO's Farming Systems Development (FSD) concept extends this approach to encompass a range of improvements including more relevant extension messages, more effective support services and appropriate agricultural policies. Emphasis is placed on institution building, the development of training materials and refining analytical and planning techniques, since these have been identified as the major constraints to the wider application of FSD and to sustainable improvements in the productivity of agricultural resources.
14. Work on soil management and fertilizers is intended to assist national programmes, within an overall approach of more productive use of land and plant nutrient resources on a sustainable basis. Increased technical support will be accorded to the development, promotion and application of Integrated Plant Nutrition Systems (IPNS) and to the more efficient and balanced use of mineral fertilizers. Fertilizer aid will continue to be provided to needy countries under the International Fertilizer Supply Scheme, as resources permit, with the present low level of pledges. Physical and chemical soil-related constraints, including acidity and micro-nutrient deficiencies will be addressed primarily through network arrangements in coordination with the International Board for Soil Research and Management (IBSRAM) and the Centro Internacional de Agricultura Tropical (CIAT). Work on fertilizer economics and supply and demand will continue to be coordinated with other organizations, particularly through the FAO/UNIDO/World Bank Working Group on Fertilizers, and through contacts with professional organizations of the international fertilizer industry and specialized national and international research and other institutions. The annual consultations on the FAO Fertilizer Programme, the biennial session of

the FAO/Fertilizer Industry Advisory Committee and its Technical Sub-Committee and working parties, generate feedback and advice on approaches and solutions to technical problems.

15. Irrigation development and management is necessary to increase and stabilize agricultural production in many areas. Indeed, in a number of developing countries, some form of irrigation is a prerequisite for increased production. Moreover, given the likelihood of shifts in cropping patterns because of climate change, this may be the case for more countries in the future. However, the increasingly high costs of irrigation development and maintenance, together with other factors, have led to a markedly slower rate of irrigation expansion in recent years. There is a need to fully utilize the potential of existing schemes, improve water use efficiency and pay attention to local small-scale irrigation systems.
16. Work on irrigation management will be related more to existing schemes, in evaluating needs for improvement and rehabilitation. All activities have a strong training orientation. Cooperation is ensured among several units in FAO - particularly for those activities associated with training, involvement of women in irrigated agriculture, mobilization and participation of farmers - and with a large number of national and international institutions and agencies including: the US Agency for International Development (USAID, Washington); the Overseas Development Administration (ODA, London); the International Institute of Land Reclamation and Improvement (ILRI, Wageningen); the International Irrigation Management Institute (IIMI, Sri Lanka); le Comité Interafricain d'Etudes Hydrauliques (CIEH, Burkina Faso); and the International Commission for Irrigation and Drainage (ICID, New Delhi). Within the UN system, FAO has important responsibilities in the follow-up to the Mar del Plata Action Plan, as reported under Sub-programme 2.1.1.6.
17. The need to respond to the increasing problems of land degradation has been widely recognized among the international soil conservation community in recent years. The main agents of change have been: the environmental lobbies; the aid agencies; and the soil conservation specialists who are developing new approaches and techniques more appropriate to the needs of land users in developing countries. In this new approach, the emphasis is on prevention rather than cure, on limiting loss of productivity rather than loss of soil, and on joint soil and water management - with community participation as a key element. FAO has played an important role in developing this approach and will continue to support it, in collaboration with other organizations and institutes. Conservation practices lead to increased production when farmers are considered as part of the solution and not as part of the problem. The development activities will be undertaken under the aegis of the Interdepartmental Working Group on Energy and the Environment.
18. The increased use of marginal quality water and over-irrigation have accentuated problems of salinization. The reclamation of salt-affected soils and the use of marginal quality and waste water will accordingly receive major attention. Health and environmental aspects of land development will be based on the work of the FAO/WHO/UNEP Panel of Experts on Environmental Management.

19. FAO has long been concerned with many components of what is now defined as sustainable development, as reported to the Ninety-fourth FAO Council in document CL 94/6. The scope of the Natural Resources Programme is now expanded to provide a special focus on sustainability, with which activities in other units can be conceptually linked. Among planned activities are the assessment of the impact of climatic change on land and water resource potentials and, through identification of viable systems, assistance to member countries in preparedness planning and prevention. The modus operandi of the new sub-programme will be through inter-divisional, short-term working groups to accomplish specific tasks and subsequently disseminate concepts and issues as appropriate. Within the UN system, the Organization will continue to actively participate in the Intergovernmental Panel on Climate Change (IPCC).
20. Of special concern will be the potential shifts in agro-ecological zones that could reduce land availability at the national level; and the impact of greater variability of annual rainfall on food production and agricultural trade. FAO has a unique role to play in this regard because of its well-established work on agro-ecological zones and land-use suitability for crops. The formulation of a strategy and an inter-agency programme on water and sustainable development, is to be initiated in the nineties as a follow-up to the Mar del Plata Action Plan.

Plan of Action

- Sub-programme 2.1.1.1: Assessment and Planning

Programme Element Title		1988-89 Approved Budget	Programme 1990-91 Change * Budget	Percent of Sub- Programme
01	Land Resources Inventories and Evaluation	321	(20)	301 14
02	Land Use Planning	202	0	202 9
03	Agro-Ecological Zones Studies and Population Potentials	627	26	653 30
04	FAO Geographic Information System (GIS)	520	0	520 24
05	Assessment of Water Resources for Irrigation Planning	546	(29)	517 24
Total		2 216	(23)	2 193 100
Cost Increases 1990-91 1990-91 Budget				289 2 482

* Increase (Decrease)

21. Significant progress has been achieved in methodologies for land resource inventories and evaluation. Building on this, further developments and field testing of a computerized soils database management system will be sought in cooperation with field projects and the International Soil Reference and Information Centre (ISRIC). Guidelines for soil description, revised in consultation with ISSS and ISO, will be tested in different countries.
22. The application of the Revised Legend of the Soil Map of the World will be enhanced by its translation and publication in different languages and further systematizing of the third taxonomic level for use within countries. A major publication is planned to promote appreciation of the potentials and management requirements of the world's main soils. Work on land evaluation will cover: disseminating methods to a wider audience; fully characterizing land-use types; systematizing information on crop requirements (in consultation with AGP, FOR, AGS, ILCA and others); and making available simple computer programmes. The emphasis placed in previous years on advice to countries in the Near East and North Africa Regions has led to increased field projects in those countries, through which modern techniques in land and water resource inventories and evaluation by agro-ecological zones will be further developed and adapted.
23. Land-use planning methods developed through the Interdepartmental Working Group on Land-use Planning, and for which guidelines were issued in 1988-89, will be tested for specific improved management of land resources. An expert consultation will discuss case studies in specific countries to identify land management units and input factors necessary for successful land-use planning, with particular emphasis on semi-arid areas. These activities should result in a publication which would present an integrated package for land planning for agricultural development at national, sub-national and local levels.
24. The methods developed by FAO for assessing land productivity and potential population supporting capacities by agro-ecological zones (AEZ) are currently being applied in several countries by Ministries of Planning and Agriculture. A soils bulletin is to be issued on the subject. The adaptation of existing computer programmes to new requirements will continue, including provision for a balance sheet approach to take account of crop, livestock and forest demands. Training in these methods, including an AEZ training course in Asia, will be facilitated by the use of expertise built up in developing countries already using the AEZ methodology.
25. The sub-programme will continue to provide a major input to the development of FAO's Geographic Information System. Microcomputer GIS and digitized cartography systems will be evaluated and tested for assistance to member countries. FAO's system will be used for assessing the possible impact of climate change on agro-ecological zones and crop potentials; assessing potentials for aquaculture development and fisheries productivity; preparing vegetation indices, vegetation and ecofloristic zonation and forest productivity mapping. Hands-on experience with GIS systems will be provided in support of field projects as well as for Headquarters analyses. The transfer of agro-ecological zones data to the WAICENT corporate database is planned.
26. The main activity on assessment of water resources for agricultural use is the development of methodologies for evaluating small basin surface

water potential at national level, taking advantage of current GIS and satellite imagery interpretation technology. Water resources constraints in Africa, in relation to population change and possible long-term water shortages, will be examined by an expert consultation. The most suitable methodologies for monitoring and controlling sea-water intrusion in coastal aquifers will be identified. Assistance will be provided to pilot projects in the Mediterranean Basin. An analysis of the impact of medium- and long-term climatic changes on water resources for agriculture is included.

- Sub-programme 2.1.1.2: Farming Systems Development

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Analysis and Development of Sustainable Farming Systems	874	(229)	645	36
02	Farm Management Inputs to Programme and Policy Analysis	594	225	819	45
03	Management of Commercial and Emergent Farms	131	(3)	128	7
04	Farm Data Systems	210	7	217	12
Total		1 809	0	1 809	100
Cost Increases 1990-91				227	
1990-91 Budget				2 036	

* Increase (Decrease)

27. This sub-programme is intended to complement and support a range of more specialized sub-programmes by evolving improved methodologies and providing training related to the analysis of individual farms and local communities. The sub-programme will also provide the necessary input of economic analysis to technical investigations.
28. The programme element for analysis and development of sustainable farming systems remains an important component of the sub-programme. The reduction in the allocation is a result of the completion of much of the initial work in translating the concept of farming systems analysis into training materials, and in part possible because of the close collaboration established with IARCs. Curriculum testing and development will, however, continue to be important. In particular, materials are being developed for different groups of specialists related to specific support services and planning/administrative functions. Work will also continue on refining techniques of

constraints analysis and on participative planning methodologies. It is intended to further develop existing methodologies for the integration of the household and the farming sub-systems in the context of multiple and often competing objectives that include profitability, equitability and sustainability. This element also includes work on the application of production economics to problems of natural resource conservation.

29. The substantial progress made in the development of methodologies and training materials has allowed adjustments to be made to other elements in the sub-programme. Farm management inputs to programme and policy analysis will receive a higher level of resources in the 1990-91 biennium to effect a gradual move to the application of farming systems analysis to various priority areas of agricultural development. While still seeking to provide a micro-level perspective to agricultural policy analysis, it is intended to cover specific policy areas, such as peri-urban agriculture, sustainable drylands development, and the socio-economic and sustainability aspects of natural resource utilization and land-use planning.
30. The element on management of commercial and emergent farms will respond to requests for information related to techniques of large farm and estate management, as well as to methods of introducing commercial practices into centrally-planned systems. An even greater demand relates to the application of farm management methodologies suitable for emergent farmers on increasingly commercialized holdings. Manuals and other training materials necessary in optimizing management techniques are planned.
31. The element of farm data systems remains substantially at the same level. However, the mix of activities is altered to reflect the fact that work on the development of FARMAP has been completed and that emphasis has shifted to the development of techniques and training materials for integrated survey design and for rapid rural appraisal. The strengthening of a centralized database on farm planning information for policy and project formulation is sought in support of a wide range of programme activities. These data will be collated and updated in cooperation with the concerned technical services and projects.

- Sub-programme 2.1.1.3: Soil Management and Fertilizers

Programme Element Title		1988-89 Approved Budget	Programme 1990-91 Change *	1990-91 Budget	Percent of Sub- Programme
01	Efficient Fertilizer Use and Integrated Plant Nutrition Systems (IPNS)	782	315	1 097	45
02	Fertilizer Supply/Economics/Policies	453	33	486	20
03	International Fertilizer Supply Scheme (IFS)	172	(172)	0	0
04	Support to Statutory and Advisory Bodies	406	0	406	17
05	Soil Management and Improvement of Shifting Cultivation	435	0	435	18
06	Soil Fertility Improvement	185	(185)	0	0
Total		2 433	(9)	2 424	100
Cost Increases 1990-91				368	
1990-91 Budget				2 792	

* Increase (Decrease)

32. Overall priority is given to promoting the application of Integrated Plant Nutrition Systems (IPNS) including previous activities on soil fertility improvement, hence the merger of former programme element 06 with programme element 01. Increased and sustainable crop production and the prevention of soil fertility degradation point to an integrated approach to the enhancement of soil fertility, based on all available sources of plant nutrients. Activities will include an IPNS field trial network, using projects of the FAO Fertilizer Programme and separate research agreements. Where appropriate, work on liming and micro-nutrients will be included in the system. Expert consultations will be held on experiences with IPNS as well as on inoculant quality in biological nitrogen fixation (BNF). The results obtained by international and national agricultural research institutes will also be incorporated in these activities. Publications will be prepared on plant nutrient balances in Sub-Saharan Africa, IPNS, inoculant quality control, efficient fertilizer use and on block demonstrations for the transfer of these technologies.

33. The provision of information on fertilizer supply, prices, economics and policies will be continued, including fertilizer supply and demand projections by the FAO/UNIDO/World Bank Informal Working Group on Fertilizers. Fertilizer strategy options will be studied and advisory services provided to member countries. The dissemination of experience will be ensured through working papers. A seminar on fertilizer pricing policies is planned under trust fund arrangements.

34. Depending on the volume of pledges received, activities will also cover operations under the International Fertilizer Supply Scheme (IFS) for which a separate element is no longer shown. As in the past, every effort will continue to be made to provide fertilizer aid to developing countries most seriously affected by balance of payment problems. Publications and documents will be prepared on the role of women in fertilizer use, methods for fertilizer requirement projections, appropriate packaging and labelling of fertilizers and on the world urea market. A special study will be initiated on the fertilizer situations of land-locked countries.
35. Under support to statutory and advisory bodies, an FAO fertilizer week is foreseen in 1990, combining the biennial session of the Commission on Fertilizers, a consultation on the FAO Fertilizer Programme and the biennial session of the FAO/Fertilizer Industry Advisory Committee. The problems of nutrient depletion will be considered. The meetings will provide programme guidance, permit exchange of experience (including recipients/donors dialogue and investigation of opportunities for ECDC and TCDC), and in particular, mobilization of extra-budgetary funds.
36. Drawing on the findings of national and international research institutions, assistance to member countries will be continued to develop, test and adopt improved soil management practices and alternative systems to shifting cultivation, including agroforestry. Collaboration with institutions - such as ICRAF - dealing with agroforestry, will be strengthened. Together with the Centro Internacional de Agricultura Tropical (CIAT), work will be initiated to develop methodologies and guidelines on steep-land soil management. Networks on research and development of tillage and residue management, particularly for semi-arid areas in Latin America and Africa, will be supported. Two training courses will be organized in Africa and Latin America in the context of sub-regional networks. Recommended practices will then be formulated for extension to farmers. Publications will be prepared on improved soil management practices, including fallow management and green manuring.

- Sub-programme 2.1.1.4: Water Development and Management

Programme Element Title	1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01 Irrigation Development, Rehabilitation and Improvement	294	229	523	27
02 International Support Programme for Irrigation Management	359	(359)	0	0
03 Small Farmer Irrigation Development in Africa	148	(148)	0	0
04 Coordination with other Agencies	84	(84)	0	0
05 Irrigation Management/Performance: Training and Research	447	327	774	39
06 Inventory and Evaluation of Irrigation Development and Management Techniques and Methodologies	663	0	663	34
Total	1 995	(35)	1 960	100
Cost Increases 1990-91			327	
1990-91 Budget			2 287	

* Increase (Decrease)

37. In order to rationalize activities, work within Sub-programme 2.1.1.4 is re-organized through a merging of hitherto separate elements. Activities previously identified under the headings of international support programme and small farmer irrigation development are no longer separately identified. Work in 1990-91 will therefore encompass three areas: irrigation development, including rehabilitation and improvement; irrigation management and performance efficiency; and the inventory and evaluation of irrigation technologies. This rationalization in no way detracts from support to small-scale irrigation development. Instead, the specific requirements and dictates of small-scale irrigation are incorporated into all aspects of the sub-programme (development, management and technologies) as well as into the water and irrigation elements of Sub-programmes 2.1.1.1 (water resources assessment) and 2.1.1.5 (salinity and health considerations).

38. Under irrigation development, rehabilitation and improvement, emphasis is given to improving existing schemes. Ongoing activities under this element include the assessment of common problems in project design and

the provision of current information on equipment and methods for irrigation, drainage and water development. In addition, attention will be given to the opportunities, potentialities and drawbacks of new techniques. An expert consultation will examine modernization and trends in irrigation schemes in Africa. An irrigation and drainage paper will deal with low-lift pumping stations for wind, solar and turbine pumps.

39. Irrigation management and performance efficiency includes management and performance at the farm and command area level. Several of the FAO irrigation management manuals are widely used by technical services and for village level extension. Further practical training manuals will be prepared as well as guidelines to improve water management at the farm level. Irrigation scheduling guidelines and related software will be completed. Small-scale irrigation is given emphasis through continued support to NGOs and activities designed to benefit rural women. An NGO case study book will be revised and guidelines issued on ways to strengthen the involvement of women in irrigated agriculture. Guidelines on water charges will be applied at national and command area levels.
40. The inventory and evaluation of irrigation technologies is intended to facilitate the identification of and training in operational techniques, methods and practices. Proven operational techniques that are successfully used in irrigated agriculture will be identified and assembled in an inventory. These activities narrow down and concentrate previous proposals for wide-scale transfer of technologies. To facilitate use of the irrigation technologies, two training workshops are planned in Africa on specific technological aspects of irrigation, subject to external funding.

- Sub-programme 2.1.1.5: Conservation and Reclamation

Programme Element Title		1988-89 Approved Budget	Programme 1990-91 Change * Budget	Percent of Sub- Programme
01	Soil Conservation and Watershed Management	859	0	859 56
02	Assistance on Control and Reclamation of Salt Affected Soils	312	(18)	294 19
03	Water Quality for Agriculture	170	2	172 11
04	Health Aspects of Water Development	140	3	143 9
05	Waterlogging and Salinity Control and Drainage	37	18	55 4
Total		1 518	5	1 523 100
Cost Increases 1990-91				214
1990-91 Budget				1 737

* Increase (Decrease)

41. The 1990-91 biennium will see the main implementation phase of an FAO-led international scheme for the conservation and rehabilitation of African lands, comprising a consultation, follow-up missions, planning advice and project preparation and implementation. Work will also start on developing a similar scheme for countries of the Asia and Pacific Region. Complementary activities will include the establishment of networks for the exchange of information on the effects of erosion on soil productivity, and for research activities to identify successful techniques to control erosion on steep lands, particularly in the humid and sub-humid tropics. Case studies on farmers' acceptance of soil conservation practices will be published. Assistance will be given to member countries in developing national soils policies, programmes and projects.
42. In recognition of the increasing worldwide problems of salinity and sodicity, network activities will continue to develop improved soil reclamation and management practices for saline and sodic soils. Further guidelines on management practices will be developed, a training course will be organized, and advice will be given to member countries.
43. Assistance will also continue to be given to the network on gypsiferous soils in the Near East Region, in collaboration with the Arab Centre for the Study of Arid Zones and Drylands (ACSAD) and the International Centre for Agricultural Research in the Dry Areas (ICARDA). A publication on management of gypsiferous soils will be produced, particularly for the Near East Region.
44. As irrigation water becomes increasingly scarce in many countries, there is a need to develop criteria and guidelines for the safe use of marginal and waste water. An integrated approach in the use of such additional water resources is essential. Guidelines will be issued on water-soil-crop management in relation to the use of marginal quality water.
45. Under the element on health aspects of water development, support will be continued to the meetings and publications programme of the FAO/WHO/UNEP Panel of Experts on Environmental Management (PEEM) as well as the UN Steering Committee on the International Drinking Water Supply and Sanitation Decade (IDWSSD). Advisory services will be provided to member countries on health aspects of water resource development projects. Environmental impact assessments will be promoted at the planning stage.
46. The element on waterlogging and salinity control and drainage will examine low-cost techniques to prevent problems and reclaim affected areas. Advice will be provided to member countries on recent advances in drainage of problem soils, to control watertables and prevent salinization of productive lands. Publications, training seminars and workshops will be used to disseminate low-cost techniques.

- Sub-programme 2.1.1.6: Sustaining Resource Potentials

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Policy Advice in Support of Sustainable Agriculture	0	151	151	27
02	Demonstration Programme of Sustainable Farming Practices - in particular, Soil and Water Conservation	0	132	132	24
03	Analysis of the Impact of Climatic Change on Agriculture	0	277	277	49
Total		0	560	560	100
Cost Increases 1990-91				51	
1990-91 Budget				611	

* Increase (Decrease)

47. Under this new sub-programme, policy advice will be provided, using matrices of factors determining long-term sustainability of specific resource attributes. Multidisciplinary analyses will cover sub-sectoral case studies and build on organization-wide inputs.
48. The demonstration programme of sustainable farming practices, particularly including soil and water conservation, will draw on the experience and existing facilities of field projects and will receive inputs from previous sub-programmes. Work will commence with investigations and analyses in order to identify proven sustainable practices, applicable to specific zones or regions, selected on an agro-ecological, environmental or other basis. All water and soil conservation techniques, including dryland farming and water harvesting techniques, will be examined. As a next step, possible linkages to extra-budgetary support with existing or new projects, including aid-in-kind for input-for-work schemes, will be sought. The immediate objective is to gain experience with selected pilot projects integrating soil, water and nutrient management for sustainable production and, eventually, to draw up a major plan of action for future years.
49. Sustainability of water use for agriculture and the impact of climatic change will initially be dealt with by FAO assuming responsibility for preparation of a UN system document on water resources and sustainability. This will lead to an inter-agency programme for promoting increased efficiency of water use for agriculture in the nineties as follow-up to the Mar del Plata Action Plan. The assessment of possible impacts of climatic change on agricultural production will be made. Work being undertaken by other organizations on climatic modelling will be monitored, particularly in regard to projected temperature and

rainfall changes. Case studies will be undertaken to analyze the potential impact of such changes on food production and food security in vulnerable countries and to help formulate alternative response strategies. The analysis will include decline in amount and increasing seasonality of rainfall, changes in distribution and severity of crop and livestock pests and diseases, and loss of vegetative cover, with the aim of identifying production systems which are both sustainable and more resilient to variability.

50. The effects of climatic change on specific water attributes will also be investigated. Effects on storage demands for irrigation and on salt water intrusion will be analyzed, results examined and possible responses formulated in an expert consultation, to be convened in Asia. In collaboration with other institutions, the possible impact of sea level rise will be specifically addressed for low-lying coastal lands, particularly with regard to salt water intrusion, increased flooding and storm flood incidence, coastal erosion and siltation.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit
Global	5 232	RP	20 152	AGL 34 290
Africa	55 623	FFH/AD	85	AGO 74 511
Asia and Pacific	20 262	Govt. Programmes	32 004	AGR 84
Near East	23 446	IFS	2 000	AGS 2 685
Europe	340	OSRO	798	DDF 70
Latin America	10 827	Other TF	4 934	IAA 798
		UNDP	54 677	Regional Offices 3 292
		UNEP	62	
		WFP	1 018	
TOTAL	115 730		115 730	115 730

Programme 2.1.2 - Crops

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
2.1.2.1 Genetic Resources	1 062	225	241	1 528	10.8	4 436
2.1.2.2 Crop Improvement and Management	4 356	(19)	597	4 934	30.5	33 736
2.1.2.3 Seeds	2 974	(208)	408	3 174	24.7	27 486
2.1.2.4 Crop Protection	4 656	235	826	5 717	41.6	65 798
2.1.2.5 Agricultural Engineering and Prevention of Food Losses	2 748	0	430	3 178	22.4	19 331
2.1.2.6 Food and Agricultural Industries	1 733	(69)	255	1 919	13.7	6 765
2.1.2.7 Regional Offices	5 195	(19)	640	5 816	70.8	0
2.1.2.8 Field Programme Support	3 067	0	746	3 813	49.4	10 064
2.1.2.9 Programme Management	1 919	0	379	2 298	25.0	0
Programme 2.1.2 Total	27 710	145	4 522	32 377	288.9	167 616

* Increase (Decrease)

1. In view of the broad interest in agrometeorological activities, and in order to integrate more effectively the different data and information requirements of users, it is proposed that these activities be combined with remote sensing activities in a new unit in AGR. This entails a shift of US\$ 580 000 from AGP to AGR. This shift masks the full extent of the net increase proposed for the Crops Programme, which is therefore higher than that inferred from the table at first sight.

Medium-term Objectives

2. The programme aims at the sustained development and stability of crop production systems in various agro-ecological areas and under prevailing socio-economic conditions. Appropriate crop production and protection techniques, as well as improved techniques for crop conservation and processing, will be promoted to optimize yields and end uses of agricultural produce. Suitable biotechnologies in plant production will be identified and opportunities investigated for their effective use in member countries. Such technologies can lead to increased production, improved tolerance to biotic and abiotic stresses and thus improved food quality and breeding methods, conservation of genetic resources and easier detection of diseases.
3. The implementation of and follow-up action on the International Undertaking on Plant Genetic Resources will be one of the major objectives of this programme. In line with the Undertaking, and following the recommendations from the Commission on Plant Genetic Resources, the emphasis will be on strengthening national and regional capabilities and programmes for the collection, conservation, management, evaluation, documentation and use of plant genetic resources.

4. Improved technologies for crop production, including appropriate cropping systems, will need to be transferred to farming communities. Links among national, regional and international institutions will be strengthened for this purpose. Continued emphasis will be given to the improvement of roots, tubers and plantains, and the promotion of mixed cropping to enable small farmers to achieve stable and sustainable production. The promotion of integrated production/processing/marketing systems for small farmers will be actively pursued, with emphasis on soybeans, roots and tubers, and cereal crops.
5. Sustainable production systems are necessary for vulnerable areas, particularly dry lands, as well as areas of considerable potential for which suitable systems are still lacking, e.g. wetlands. The diversification of cropping systems and the development of under-utilized crops will be promoted. A multidisciplinary approach will be favoured by integrating processing and marketing of food products, bearing in mind objectives of nutrition, income generation and labour absorption.
6. The potential of specialized crop production technologies for generating incomes and improving living standards is to be fully exploited through, for example, fruit and vegetable cultivation, floriculture and mushroom production. In effect, these crops are an important source of income for poor farmers in the humid and sub-humid areas in the tropics, particularly for women. Support will also be provided to member countries to improve industrial crop production, in particular annual and perennial oil crops, but also essential oil crops and medicinal plants. Beyond aspects of self-sufficiency and rural income generation, export opportunities will not be overlooked.
7. National seed policies and programmes will continue to require considerable external assistance in order to promote comprehensive and sustainable seed production and agricultural systems. Particular emphasis will be placed on on-farm seed production of local, well-adapted varieties. Ongoing activities are the collection and dissemination of information on subjects such as plant genetic resources conservation and use, variety description, seed sources and seed equipment.
8. Continued assistance will be provided for the control of weeds, insect pests, plant diseases and rodents, and for the reduction of post-harvest losses. Specific activities will include the development of integrated pest management programmes, in particular for crops where high amounts of pesticides are used, and the implementation of the International Plant Protection Convention. Strengthening of national and regional pest forecasting, monitoring and control capabilities will aim at achieving more effective control of migratory pests. Work on the safe and effective use of pesticides will be pursued in line with the International Code of Conduct on the Distribution and Use of Pesticides. Special assistance will be provided to member countries in relation to the Prior Informed Consent (PIC) clause.

9. The introduction and sustained use of appropriate agricultural engineering inputs for rural and agricultural development remains an important objective. The formulation of national agricultural mechanization strategies will be a major thrust. Storage, handling and drying operations will continue to receive attention in order to reduce post-harvest losses, particularly for basic food crops. The use of local building materials and indigenous construction skills will be encouraged as the main feature of activities related to farm buildings.
10. FAO needs to strengthen its work on small-scale integrated agro-industries which can make effective use of locally available agricultural products. In addition to traditional food and non-food products, value-added products such as medicinals, aromatics, spices and small-scale industrial raw materials such as starches, will be addressed because of their potential for income generation in rural areas.

Focus of the Programme

11. The activities of the Crops Programme have a strong technical support orientation. They emphasize the transfer of research results through cooperation with relevant institutions. Major areas of work are: plant genetic resources; crop improvement and management; seed production; plant protection; agricultural engineering; prevention of food losses; and food and agricultural industries.
12. Responsibility for implementation rests with the Plant Production and Protection Division (AGP) for Sub-programmes 2.1.2.1, 2.1.2.2, 2.1.2.3 and 2.1.2.4. The Agricultural Services Division (AGS) manages Sub-programmes 2.1.2.5 and 2.1.2.6. Sub-programme 2.1.2.7 covers the activities of Regional Offices and Joint Divisions. The allocations for Sub-programmes 2.1.2.8 and 2.1.2.9 are shared between AGP and AGS.
13. The importance of the conservation, availability and effective use of plant genetic resources is widely recognized as a prerequisite for continued future improvements of agriculture in a sustainable manner and environmental protection. Concern over the loss of these resources has increased considerably in recent years due to the destruction of natural biotopes and the genetic erosion resulting from the intensification of agriculture, through the introduction and widespread application of improved varieties. The programme focuses on the priority areas outlined in the International Undertaking on Plant Genetic Resources and the various activities identified by the Commission on Plant Genetic Resources. It is carried out in close cooperation with other organizations, in particular the International Board for Plant Genetic Resources.
14. Current activities related to crop improvement and management will be largely maintained, but with increased attention to sustainable production systems especially in vulnerable areas and the gradual introduction of plant biotechnologies. A new element on policies for sustainable production systems is introduced as a direct contribution to Sub-programme 2.1.1.6: Sustaining Resource Potentials. A new programme element for the promotion of plant biotechnologies is also introduced. The improvements in the quantity and variety of food for rural as well as urban populations, will depend on progress in the diversification of cropping systems, mixed cropping, agroforestry, home gardens, agropastoral systems and development of under-utilized crops.

15. A strong multidisciplinary approach will aim at integrating production, processing and marketing aspects. Links will be maintained with CGIAR Centres in the specific sectors where they are active. Field programmes (national and regional) will permit the wide dissemination of available crop production technologies. More attention will be given to the profitability of production and processing of industrial crops at the farmers' level. Better recycling of plant nutrients will also lead to more sustainable farming systems and contribute to eliminating periodic fallow.
16. It is well recognized that the use of quality seeds is one of the cheapest and most effective ways to increase crop production and productivity. The Seed Improvement and Development Programme (SIDP), drawing on both Regular Programme and extra-budgetary resources, will continue to serve as the major vehicle for the provision of assistance in the formulation and implementation of specific programmes and projects for the production and use of good quality seed, in collaboration with national and international institutions. The programme will particularly support local seed production and distribution systems. Increased emphasis will be placed on on-farm seed production.
17. Activities on plant protection will address the reduction of pre- and post-harvest losses through assistance in all aspects of pest control, including migratory and non-migratory insect pests, plant diseases, weeds and vertebrate pests. The programme stresses integrated pest management (IPM), and cooperates with other FAO programmes and with the United Nations Environment Programme (UNEP) in this area. It provides essential international coordination of migratory pest control activities. In the area of pesticides, the programme will seek appropriate distribution and use of pesticides and limitation in the use of banned and restricted products. It will provide assistance to overcome current weaknesses of national pesticide registration and control systems in developing countries. Weed management will remain an important activity but with a shift to more multidisciplinary approaches in close cooperation with IPM activities.
18. The programme's work on agricultural engineering has been reorganized to reflect the need for integrating engineering inputs with farm production and other rural services. Farm mechanization, storage, handling and drying of crops, and farm buildings remain engineering activities necessary to improve farm productivity, reduce drudgery, reduce production costs, and decrease storage losses, particularly of food crops. Agricultural engineering information exchange is emphasized to ensure that technical and managerial experience in mechanization, storage and farm buildings is more readily available to developing countries.
19. FAO's role of international focal point for agricultural engineering will be enhanced through increased liaison and collaboration with engineering institutions worldwide. The management of engineering inputs, including machinery, storage, handling and drying facilities, and farm building construction is becoming increasingly important and

the programme provides advice in these fields. Because of the vast amount of work being done by other institutions, the programme will reduce its previous emphasis on developing alternative engineering technologies and shift to a coordinating role for dissemination of engineering information and prototypes which are available from diverse sources. Training will continue to be an important component of the programme to ensure local skills development and lead to more effective and efficient engineering inputs at the farm level.

20. The focus of the Action Programme on Prevention of Food Losses is on reducing post-harvest losses, as a cost-effective means of increasing food availability and security. Emphasis has been shifted from loss assessment activities towards practical measures to handle and protect staple food crops, with increased attention to roots, tubers, fruit and vegetables in addition to cereals and grain legumes.
21. In the food and agricultural industries area, appropriate new technologies need to be transferred and traditional technologies upgraded in both the food and non-food sectors. Within the food sector, work is carried out on wheatless bread, improved processing and preservation of roots, tubers, fruits, vegetables, oilseeds and cereals and apiculture development as well as utilization of food irradiation. In the non-food sector, attention is paid to sericulture and other natural fibres such as cotton, wool and jute, in addition to hides and skins. There is growing interest on medicinals and aromatics as well as on the processing of agricultural raw materials that could be used for small-scale industrial applications such as starch for adhesives. The use of biotechnology in small-scale rural food and non-food processing will continue to receive attention.

Plan of Action

- Sub-programme 2.1.2.1: Genetic Resources

Programme Element Title	1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01 Commission on Plant Genetic Resources	278	266	544	42
02 Support to Member Countries on Plant Genetic Resources	428	(75)	353	27
03 Training on Genetic Resources	199	(25)	174	14
04 Information on Plant Genetic Resources	157	59	216	17
Total	1 062	225	1 287	100
Cost Increases 1990-91 1990-91 Budget			241 1 528	

* Increase (Decrease)

22. Sub-programmes 2.1.2.1: Genetic Resources and 2.1.2.3: Seeds are implemented by the Seed and Plant Genetic Resources Service. The current staffing of the Plant Genetic Resources Group comprises five professional staff positions. In the Summary Programme of Work and Budget, it was proposed to eliminate one P-4 post and to reduce the total resources for Sub-programme 2.1.2.1. However, in anticipation of increased responsibilities and workload in plant genetic resources, this decrease was questioned by the Committee on Agriculture (COAG) and subsequently by the Programme Committee and the Council. Staffing is therefore maintained at the present level and the budgetary provision is increased. There will be a need to continue effective cooperation with the IBPGR, in particular in the areas of training, strengthening of national capabilities and information. Depending on future arrangements for the IBPGR, the provision will need to be adjusted accordingly in successive biennia.
23. The sub-programme will continue to support the work of the Commission on Plant Genetic Resources. Inputs to the work of the Commission are also provided by other departments and divisions; for example, in situ conservation is under the responsibility of Major Programme 2.3: Forestry, while legal matters fall under the responsibility of Major Programme 1.3. The implementation of the Undertaking on Plant Genetic Resources will require various studies to be carried out, and extensive means of action to be developed for assistance in the increased collection and use of plant genetic resources. At its Third Session, the Commission made various proposals for new activities. These include a study on the possible establishment of an advisory committee; the preparation of a Code of Conduct for germplasm collectors and one on biotechnology and plant genetic resources; the preparation of a document on the state of the world's plant genetic resources; and the development of a global information and early warning system. For the implementation of these activities, additional resources will have to be identified beyond the limited increase proposed for this element.
24. Support to member countries aims at the strengthening of local infrastructures, national capabilities and activities in member countries for the conservation and use of plant genetic resources. This element includes support for the evaluation of collections and the improvement of plant breeding. Close contact will be maintained with countries for the identification of priorities and formulation and implementation of specific projects. Taking into account ongoing cooperation with the IBPGR and, as a result of an increase in extra-budgetary funds for field projects, the allocation can be reduced. The Regular Programme resources will be mainly used for the collection and evaluation of crops of local interest and which are not covered by the IBPGR and the International Agricultural Research Centres.
25. Training on plant genetic resources will be organized to ensure core ~~manpower~~ in support of national programmes for the conservation and use of plant genetic resources. Close cooperation with other organizations, in particular the IBPGR, also permits a reduction of the Regular Programme contribution.
26. FAO will continue to promote the collection and dissemination of information related to plant genetic resources. Planned activities are the development of the global information and early warning system and the preparation of the state of the world's plant genetic resources. The Plant Genetic Resources Newsletter will continue to be jointly published with the IBPGR.

- Sub-programme 2.1.2.2: Crop Improvement and Management

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Development of Food Legumes	272	194	466	11
02	Improvement of Rice and Rice-based Farming Systems	670	(25)	645	15
03	Improvement and Transfer of Cereal Production Technology (Excluding Rice)	269	123	392	9
04	Improvement and Intensification of Vegetable Production	450	(76)	374	9
05	Promotion of Root and Tuber Crop Production and Improvement for Small Holdings	426	(80)	346	8
06	Development of Fruit Production	658	(80)	578	13
07	Crop Diversification and Intensification of Mixed Cropping Systems	261	76	337	8
08	Development of Oil Crops	275	20	295	7
09	Fibre Crop Development in Semi-arid, Sub-humid and Humid Tropics	182	(30)	152	4
10	Alternatives to Shifting Cultivation	172	(7)	165	4
11	Industrial Crop Diversification, Illicit Drug Crops Substitution and Development of Under-utilized Plants	141	29	170	4
12	Agrometeorological Crop Monitoring and Support to the Food Security Programme	580	(580)	0	0
13	Promotion of Plant Biotechnologies	0	266	266	6
14	Policies for Sustainable Production Systems	0	151	151	3
Total		4 356	(19)	4 337	100
Cost Increases 1990-91				597	
1990-91 Budget				4 934	

* Increase (Decrease)

27. Under work on food legumes, technologies to increase crop yields will be promoted, as well as intercropping and crop rotations with cereals, in order to contribute to crop diversification and improve the nutritional value of agricultural production for poor farmers. Increased cooperation with national and international institutions will be ensured, in particular for soybeans. Cooperation among developing countries will be furthered. The increase will permit the development of cooperative networks.
28. The improvement of rice and rice-based farming systems will be geared to improve economic sustainability of small rice farmers. The concept of integral utilization of rice and the production of wetland, upland and mangrove rice will be further promoted. This work will be carried out in close cooperation with IRRI and WARDA. The network of F1 rice hybrid technologies and other emerging rice biotechnologies will be extended. Manpower capabilities will be upgraded through training on breakthrough technologies for various rice ecologies. The IRC Newsletter and a training manual on rice production on small African farms will be issued. A crop data bank will be initiated. Relatively to other crops, rice production will still receive close attention, but fewer funds will be needed, in particular for the preparation of the Seventeenth Session of the International Rice Commission, which has been postponed from 1988-89 and will be held in early 1990 in Brazil.
29. The element on cereals underwent cuts in the 1988-89 biennium. Therefore, activities are being strengthened and concentrate on the assessment and transfer of available technologies from national and international institutions. Whenever suitable, agroforestry will be promoted to increase sustainability of farming systems.
30. For vegetable production, activities will be oriented towards improved supply to city centres of fresh quality produce and income-generating activities in urban green belts. In rural areas, small-scale vegetable growing will be encouraged, including lesser-known traditional horticultural food plants, with a view to improving diets and ensuring food security at household level. Inter-country cooperation will be strengthened and regional networks developed for the selection, multiplication and exchange of improved high-yielding varieties. Crop monographs on lesser-known horticultural food plants will be published. Specialized and intensive production technologies will be further investigated with the objective of limiting use of water and producing quality products with low pesticide residues. A technical manual on soilless culture will be published. FAO's horticultural crop performance information system will be further improved.
31. For roots and tubers, including plantains and bananas, technical assistance will be given to strengthening national research and development programmes. A multidisciplinary working group will continue to coordinate all activities related to these crops, under both the Regular and Field Programmes. This will include the promotion of improved techniques in production, post-harvest handling, processing and marketing, also covering socio-economic and utilization aspects. Links will be established with international institutions and agencies for strengthening national and regional plant breeding programmes to develop high-yielding, disease-resistant varieties which could meet consumers' requirements in terms of nutritive value and quality. In collaboration with other institutions, training programmes will be organized in all aspects of root crop improvement. A decrease in resources is possible as various preparatory studies have been finalized.

32. Intensive, specialized fruit production directed to high turnover, local or export markets will be promoted through national research institutions, field projects of direct assistance to the private sector, and training activities on propagation and nursery management for leading farmers. At the same time, semi-specialized fruit production in mixed orchards based on simple technologies suitable for smallholders will be encouraged, to permit sustained year-round fruit production, and improving land use, particularly in remote regions of poor countries. The establishment of regional and sub-regional networks will be pursued on selected fruit crops which merit special attention (citrus, olive, banana, grapes, dates). Technical manuals on the cultivation of selected highly profitable tropical and sub-tropical fruit crops will be prepared. A shift in resources is made to the next element, reflecting the role of fruit species - together with vegetables, roots, etc. - in balanced, sustainable, mixed cropping systems, home gardens, and agroforestry.
33. The increase for crop diversification and mixed cropping will permit the further promotion of mixed cropping (including home and community gardens in rural areas, agroforestry). Adapted, balanced crop associations will be promoted, particularly by encouraging national institutions to build up specialized technical units to support farmers. Assistance will also be provided for specialized training of national technical personnel, and for national strategies to promote mixed horticultural cropping. Selected, high-value horticultural crops for production at family level contribute to diversifying and supplementing income-generating activities (mushrooms, cutflowers, herbs and condiments, etc.). Governments will be assisted in programmes of supply of planting material and dissemination of technologies. A technical manual on small- and medium-scale mushroom production for tropical regions will be prepared.
34. Under oil crops and oil crop-based cropping systems, support will be given to national or regional programmes for: (i) improved crop utilization of production inputs; (ii) the association of oil crops with other legume and non-legume crops; (iii) resistance to biotic and abiotic stresses; (iv) on-farm testing; (v) introduction, domestication and promotion of new annual oilseed species (buffalo gourd, agremone, etc.) and under-utilized palms (babassu, seje, perjibaye, etc.) or other species like simaruba; and (vi) improved oilpalm production.
35. Fibre crops, like cotton and jute, continue to be of great importance in several developing countries, and will receive due coverage during the 1990-91 biennium. The main activity will be on consolidating the regional cotton networks in Latin America, Africa and Asia. Cooperation with the International Jute Organization (IJO) will continue, and jute and kenaf cultivation will be promoted for non-traditional uses like pulp for paper manufacturing.
36. The element on alternatives to shifting cultivation will provide assistance to member countries in developing agroforestry and mixed perennial cropping systems which control erosion, require minimum tillage, have low weeding costs and require minimal crop protection. These activities will be implemented in close cooperation with the Forestry Department and other units.

37. Under industrial crop diversification, attention will be placed on essential oil crops which can be reduced to small volume, are of high value, can be partially processed on site and can generate income for subsistence farmers in remote areas, for instance as part of drug crops' substitution programmes. Training courses will also be organized.
38. Plant biotechnologies present both opportunities and challenges for member countries. They can increase crop production, augment tolerance to biotic and abiotic stresses, improve food quality and breeding methods, conserve genetic resources, and detect disease. The provision includes a new full-time specialist to serve as focal point for: (i) monitoring and assessing the potential and limitations of plant biotechnologies; (ii) advising on research priorities; and (iii) developing and promoting collaborative research among developing countries and between developing and developed countries. This work will be carried out in close collaboration with other units. Initially, emphasis will be placed on crops of special importance to poor farmers, for example, roots and tubers.
39. The activities under policies for sustainable production systems will be carried out in close coordination with the Sub-programme 2.1.1.6: Sustaining Resource Potentials. The element will provide guidance to member countries in the identification and introduction of sustainable technologies. Initially, most of the work will be undertaken through consultancies and contracts.

- Sub-programme 2.1.2.3: Seeds

Programme Element Title	1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01 Seed and Planting Material Introduction and Exchange	363	54	417	15
02 Seed Information System (SIS)	436	(67)	369	13
03 Strengthening of National Seed Programmes	1 248	(226)	1 022	37
04 Training and Information on Seed Improvement	927	(239)	688	25
05 Improved On-farm Seed Production.	0	270	270	10
Total	2 974	(208)	2 766	100
Cost Increases 1990-91 1990-91 Budget			408 3 174	

* Increase (Decrease)

40. This sub-programme will continue to provide direct support to member countries on seed improvement, including the development and implementation of national seed policies. A new programme element is established for on-farm seed production, to cover small farmers who have no access to, or can make very limited use of, quality seeds of local or improved varieties. This will be implemented in close collaboration with national institutions. Funds will come from internal shifts.
41. The FAO Seed Laboratory will continue to provide seed and planting material to national and international research centres, scientists and field projects. There is a steady demand for these services which are implemented in collaboration with IARCs and public and private seed firms. Activities are especially aimed at those individuals and institutions that have limited access to normal seed supplies. Demand concerns particularly new crops and special varieties.
42. The Seed Information System (SIS) will continue to promote the collection and dissemination of information on variety improvement, seed production, quality control and distribution. This computerized system includes five sub-systems: (i) Seed Review, containing information on variety improvement, seed quality control, seed production and distribution in member countries; (ii) Variety Description, containing agro-ecological information on crop species; (iii) Seed Exchange, providing addresses of seed suppliers, organizations and firms; (iv) Seed Equipment, giving information on seed-related equipment; and (v) Information on plant genetic resources.
43. The strengthening of national seed programmes constitutes the major element of the sub-programme. The Seed Improvement and Development Programme (SIDP) provides assistance in preparing and implementing national seed policies. The SIDP also assists in the formulation, implementation and backstopping of specific seed programmes and projects for the production, distribution and use of good quality seeds. A number of project formulation missions are planned. As the SIDP continues to enjoy considerable extra-budgetary support, the Regular Programme contribution can be reduced without affecting overall activities.
44. There is a continued need for training and information exchange on seed improvement. Over the years, packages of training material have been developed, including audiovisual aids. Further training courses will be carried out, both at national and regional level, in close collaboration with national and regional institutions, including IARCs. Substantial extra-budgetary resources will compensate for the reduction in Regular Programme funds.
45. The new programme element, improved on-farm seed production, will assist member countries to develop seed production, processing, quality control and distribution systems for those farmers that have limited or no access to quality seeds of local or improved varieties. Close collaboration will be established with national and international institutions working in this field, and particular attention will be given to the exchange and improvement of local ecotypes, land races and varieties.

- Sub-programme 2.1.2.4: Crop Protection

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Plant Quarantine	480	19	499	10
02	Improving Weed Management	356	(153)	203	4
03	Pesticides	1 030	84	1 114	23
04	Plant Pathology	392	(59)	333	7
05	Integrated Pest Management	421	80	501	10
06	Post-Harvest Pest Management	235	(143)	92	2
07	Vertebrate Pest Management	274	(170)	104	2
08	Migratory Pest Control	798	303	1 101	23
09	Plant Protection Information	319	11	330	7
10	Strengthening Plant Protection Infrastructures	351	263	614	13
Total		4 656	235	4 891	100
Cost Increases 1990-91				826	
1990-91 Budget				5 717	

* Increase (Decrease)

46. The Organization plays a major intergovernmental role in plant protection. In particular, attention will continue to be given to the implementation of the International Plant Protection Convention, especially on the information exchange aspects. In the field of pesticides, the implementation of the Code of Conduct on the Distribution and Use of Pesticides will be prominent. Extra-budgetary resources will be sought for increased assistance to member countries. The inclusion of the Prior Informed Consent (PIC) clause in the Code will result in substantial extra tasks for the secretariat. Integrated pest management, plant pathology and weed management will address problems in developing countries, chiefly through long-term programmes to develop and transfer knowledge on improved pest control.

47. FAO is the depositary of the International Plant Protection Convention under which guidance is provided to member countries on plant quarantine matters. There is a need to strengthen current activities through coordination with regional commissions, provision of information to member countries on the safe exchange of plants and vegetal

products in international trade and the distribution of pests requiring plant quarantine. This work is of importance to both developing and developed countries. In this respect, it is recalled that the Uruguay Round of negotiations in GATT gives special consideration to plant quarantine as a potential non-tariff trade barrier. It is, therefore, expected that issues such as harmonization of regulations, certification and treatments, pest risk analysis and information exchange will acquire increasing importance. In order to obtain the necessary expert advice for these activities, the current Panel of Experts on Improved Weed Management will be substituted by a Panel of Experts on the Implementation of the International Plant Protection Convention.

48. Weed management will be addressed within the overall Integrated Pest Management (IPM) approach. The existing Panel of Experts on Integrated Pest Management will also deal with weed management problems, allowing for a reduction in resources for this programme element. Activities will address particular problems such as the control of striga in Africa and biological control of weeds.
49. The programme element on pesticides will deal with the implementation of the International Code of Conduct on the Distribution and Use of Pesticides. New activities will concern particularly the Prior Informed Consent (PIC) procedure. This will be carried out in close cooperation with UNEP. Funding for these new activities will be ensured through redeployment within the programme element. It is expected that substantial extra-budgetary resources will be available, which will somewhat ease pressures on Regular Programme funding. Further guidelines and standards will be produced to support the implementation of the Code. Emphasis will be placed on the protection of the environment, including the prevention of groundwater contamination by pesticides and safe disposal practices. Work will continue on the establishment of relevant standards on pesticide residues and other aspects of the safe and efficient use of pesticides.
50. Work on plant pathology will cover three aspects: firstly, support to the programme on plant quarantine; secondly, inputs to the Integrated Pest Management programme; and thirdly, the production of healthy planting material. A slight decrease in resources is made.
51. In view of heightened public awareness of the negative effects of pesticides, the programme element on integrated pest management will concentrate on crops for which there is already a substantial mis- or over-use of pesticides. Priority crops will be vegetables, citrus, cotton and cocoa. The selection of activities will continue to be guided by the FAO/UNEP Panel on Integrated Pest Control. The necessary background studies on these crops will be carried out and field programmes developed. The programme element will also receive inputs from plant pathology and weed control.
52. The elements vertebrate pest management and post-harvest pest management will be substantially reduced. Work on post-harvest pest control is being mostly covered by other programme elements. In the case of vertebrate pest control, this reflects the limited number of requests for assistance. Activities will remain on information exchange and for ensuring sufficient technical expertise to meet Member Governments' requests.

53. During 1988-89, the sub-programme provided extensive emergency assistance to control migratory pests. The outbreaks of desert locusts led to the establishment of the Emergency Centre for Locust Operations (ECL0). The desert locust emergency has also shown the value of the Desert Locust Control Committee and the Regional Commissions on Desert Locust Control. The Organization will continue to provide secretariat support to these bodies. Further strengthening of forecasting and reporting activities is required. The programme element will also have an important task in coordinating research efforts for locust control. An increase of resources is made to consolidate monitoring operations.
54. The activities under plant protection information include the publication of the FAO Plant Protection Bulletin and several other publications on selected aspects of plant protection, including pesticides.
55. The strengthening of national plant protection services will be carried out, especially in Africa. The programme element will identify present plant protection constraints and assess minimum requirements for national infrastructures and will advise Member Governments on long-term programmes. It will foster cooperative action between countries and elicit support from donor agencies. Activities will include studies on important aspects of plant protection in Africa, the establishment of research networks and training programmes for plant protection and extension personnel. A substantial net increase is made in anticipation of increased project and programme formulation.

- Sub-programme 2.1.2.5: Agricultural Engineering and Prevention of Food Losses

Programme Element Title	1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01 Agricultural Engineering (General)	474	(474)	0	0
02 Agricultural Mechanization	661	(661)	0	0
03 Storage and Rural Structures	507	(507)	0	0
04 Technical Support to Member Countries and Collaboration with UN Agencies and other International Organizations	277	(277)	0	0
05 Action Programme for the Prevention of Food Losses	829	0	829	30
06 Agricultural Engineering Information Exchange	0	688	688	25
07 International Cooperation and Liaison for Agricultural Engineering	0	353	353	13
08 Input Management Related to Agricultural Engineering	0	365	365	13
09 Alternative Technologies in Agricultural Engineering and Improved Project Design	0	363	363	13
10 Training on Agricultural Engineering Applications	0	150	150	5
Total	2 748	0	2 748	100
Cost Increases 1990-91			430	
1990-91 Budget			3 178	

* Increase (Decrease)

56. The programme elements constituting this sub-programme have been rearranged to reflect a change from a disciplinary/sub-disciplinary approach to a functional approach. The change ensures that activities concerning mechanization, storage, handling and drying, and farm building design and construction are connected in relation to common engineering aspects and in line with the main functional activities of FAO. This change does not affect the total allocation which remains unchanged.
57. The Action Programme for the Prevention of Food Losses will continue to assist member countries to identify major constraints and plan and implement interdisciplinary actions to minimize food losses. The programme has extended its crop coverage to include perishables, especially roots, plantains, and fruits and vegetables. Technical support will be given to regional training programmes, to be funded from extra-budgetary resources, in Latin America and Asia.
58. The element dealing with agricultural engineering information exchange will absorb the next highest percentage of the total allocation. A revised edition of the FAO International Directory of Agricultural Engineering Institutions will be issued in a computerized format. Basic publications on farm tools and equipment, on-farm storage and handling systems, and the use of local skills and materials for farm buildings will be prepared, for duplication in developing countries and wide distribution to small-scale farmers and rural communities. A system for collecting, processing and disseminating agricultural engineering information worldwide will be developed to complement existing FAO and other international information exchange systems.
59. FAO is the only international forum for considering agricultural engineering issues and the element international cooperation and liaison for agricultural engineering will cover this aspect. The FAO Panel of Experts on Agricultural Mechanization will continue to be an important activity. Close contacts with other UN agencies and international organizations will be established to avoid duplication of effort and ensure that gaps in current assistance to developing countries are filled.
60. Under the element input management related to agricultural engineering, emphasis will continue to be on the formulation of national mechanization strategies, on management of farm/village level crops storage, and on designing and managing improved farm buildings based on local materials and indigenous skills. Basic technical manuals on these issues will be prepared.
61. The element on alternative technologies in agricultural engineering and improved project design will amplify the work done by other institutions on alternative engineering technologies. These technologies will be incorporated in the design of field projects so as to ensure that they reflect the latest innovations relative to farm tools, equipment, machines and materials for mechanization, storage and buildings.
62. The element dealing with training on agricultural engineering applications will cut across the full spectrum of engineering education, from university programmes to training of skilled operators, builders and village artisans. A wide range of activities will aim at redressing the present lack of adequately trained people, at all levels.

- Sub-programme 2.1.2.6: Food and Agricultural Industries

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Food Processing and Handling including Indigenous and Composite Flours	637	(151)	486	29
02	Processing of Medicinal Plants, Spices and Aromatics	0	123	123	7
03	Apiculture	284	(75)	209	13
04	Hides and Skins and Animal By-products	196	(79)	117	7
05	Natural Fibres including Sericulture	313	(70)	243	15
06	Agricultural Processing for Industrial Applications	57	69	126	8
07	Process Biotechnology (previously Emerging Technologies)	246	(19)	227	14
08	Private Sector Development	0	133	133	8
Total		1 733	(69)	1 664	100
Cost Increases 1990-91				255	
1990-91 Budget				1 919	

* Increase (Decrease)

63. The sub-programme requires some restructuring of programme elements to reflect evolving priorities of Member Governments. Work on indigenous flours and composites will be incorporated into a new element on food processing and handling, which will focus on the development of marketable convenience foods based on indigenous crops, such as wheatless bread. In addition, oilseed and legume processing, as well as value-added fruit and vegetable processing, are included. The concept of modern, small-scale, Community Processing Centres (CPC) will be promoted. These centres are designed to prevent post-harvest losses at village level and to provide processed food products for semi-urban and urban areas.
64. Another new element, processing of medicinal plants, spices and aromatics will deal with value-added processing of these products closer to the source of production. These products are suitable for small-scale processing and, in processed form, can profitably contribute to both import substitution as well as export.

65. Assistance on apiculture development, especially as an off-farm activity for rural women, continues to be in great demand. It will focus upon new management techniques, disease and pest control, as well as crop pollination. Work will also continue on hides, skins and animal by-products, with new areas such as marine and reptile skins. Private sector development will be pursued, in addition to commercial utilization of by-products.
66. The programme element on natural fibres will include sericulture. In addition to ongoing work on upgraded technologies, work will be pursued on new value-added applications, such as natural fibre blends for industrial uses, both for import substitution and export development. Tropical sericulture and improved germplasm development will be promoted.
67. Agricultural processing for industrial applications will address the large and growing market for processed agricultural products in small-scale industrial applications. It will cover products such as starches from roots, tubers and maize grains for use in adhesives, paper and box production, construction board and fabric sizing. The feasibility of small-scale rural processing activities will be assessed.
68. The former element on applications of emerging technologies in food and non-food processing has been retitled process biotechnology to reflect its new focus. Fermentation technologies, small-scale biochemical production, and residue technologies will be the major areas to be covered. Work on new sources of energy will be decreased since taken up by other divisions.
69. The new programme element, private sector development, is to reflect the growing importance of the private sector in the development process. Activities will cover agro-industry sectoral studies, technology transfer policies, joint venture studies, impact analysis and export processing zones.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit	
Global	9 853	RP	32 377	AGL	21
Africa	109 501	ECLO	24 043	AGO	123 770
Asia and Pacific	39 864	FFH/AD	1 952	AGP	55 388
Near East	29 530	Govt. Programmes	41 814	AGS	8 457
Europe	1 448	OSRO	6 010	DDA	23
Latin America	9 797	Other TF	8 352	IAA	6 518
		PFL	1 501	Regional Offices	5 816
		UNDP	82 646		
		WFP	1 298		
TOTAL	199 993		199 993		199 993

Programme 2.1.3 - Livestock

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
2.1.3.1 Grassland, Forage and Feed Resources	1 575	190	260	2 025	14.6	15 502
2.1.3.2 Animal Health	4 407	267	713	5 387	30.9	16 472
2.1.3.3 Genetic Resources	729	113	107	949	3.9	1 854
2.1.3.4 Dairy Development	932	(73)	158	1 017	8.8	4 034
2.1.3.5 Meat Development	1 290	(209)	175	1 256	8.0	3 119
2.1.3.6 Livestock Production	1 420	(34)	209	1 595	10.0	14 318
2.1.3.7 Regional Offices	2 883	(41)	329	3 171	26.8	0
2.1.3.8 Field Programme Support	2 074	(118)	475	2 431	31.7	3 787
2.1.3.9 Programme Management	974	(36)	174	1 112	11.5	0
Programme 2.1.3 Total	16 284	59	2 600	18 943	146.2	59 086

* Increase (Decrease)

Medium-term Objectives

1. Livestock has a multipurpose role in rural development, in addition to supplying meat, milk and other products to meet the rapidly-rising consumer demand and therefore has a direct bearing on the sustainability of agricultural production systems. It can utilize land resources or feed materials that otherwise would not be brought into the human food cycle, including a variety of crop residues and agro-industrial by-products. Manure can be used to build up soil fertility. In many developing countries draught animals still play a central role in land preparation, cultivation and transport. However, livestock productivity in developing countries is very low as a result of unimproved breeds, an inadequate feed base and poor disease control. Moreover, overgrazing is a cause of land degradation in many areas.
2. This programme therefore aims to support the improvement of animal feeding, disease control and breeding, the development and introduction of pastoral and mixed farming systems that limit land degradation and conserve land and water resources and the development of processing facilities for animal products.
3. Both qualitatively and quantitatively, inadequate feed resources remain the most serious constraint to increased livestock productivity in most developing countries. Attention will be concentrated on increased production of feeds through the integration of crop and livestock systems, better grazing land management and by-products utilization and the application of the several methods now available to increase use of low quality, high fibrous biomass.

4. The improvement of the disease control capacities and the cost effectiveness of veterinary services in developing countries will remain a very important objective. It will be supported through assistance in improving infrastructures (including laboratory facilities, diagnostic services and vaccination programmes to prevent the spread of major infectious diseases across international boundaries), as well as in the planning of disease control. Campaigns will continue to be promoted for the control of specific diseases such as rinderpest, foot-and-mouth disease, tick-borne diseases and trypanosomiasis in order to reduce the direct economic losses they cause and ensure effective action in emergencies, e.g. the recent appearance of the American screwworm fly in North Africa.
5. Training, extension and demonstration activities will be further strengthened to develop animal production at the small-farm level, and to improve animal husbandry systems. Attention to large ruminants (including buffaloes and camels) will continue as an essential component of livestock production in most developing countries for meat and milk and for draught animal power. At the same time, however, the development of small ruminants and other small animal species would have to be supported particularly through TCDC activities. The integrated production, processing and marketing of meat and milk will be promoted on a cooperative basis, in order to generate a regular cash income for small farmers and to reduce progressively the dependence on imports in some countries.
6. Assistance will continue to be provided for the upgrading of native stock with imported breeds, especially for milk production and in areas where improved animal husbandry systems are feasible. However, the importance of conserving animal genetic resources, and of protecting and improving native breeds by selection, will continue to be stressed. Artificial insemination and embryo transfer will be promoted as useful tools for purposes of improvement and conservation. Support will also be given to intensified training and applied research in biotechnology with regard to animal reproduction, genetics, growth, lactation, feed utilization, and disease diagnosis and vaccine production.

Focus of the Programme

7. The Livestock Programme is concerned with improvements in livestock production and productivity, mainly in the developing countries, through the application and adaptation of improved technologies in fodder production, range and pasture management, animal nutrition, animal breeding and genetics, animal husbandry systems, animal disease control and better methods of processing and marketing of animal products in connection with meat and dairy industries. The activities on feed resources, genetic resources and animal health and production address essential factors in relation to long-term sustainability. Promotion of inter-country cooperation, training activities and TCDC are of primary importance. The programme is implemented in close collaboration with the International Agricultural Research Centres, in particular the International Livestock Centre for Africa (ILCA), the International Laboratory for Research on Animal Diseases (ILRAD) and the International Trypanotolerance Centre (ITC), and other international organizations and institutes, on selected activities.

8. Responsibility for implementation of the programme rests with the Animal Production and Health Division (AGA) for Sub-programmes 2.1.3.2, 2.1.3.3, 2.1.3.4, 2.1.3.5, 2.1.3.6, and 2.1.3.9. Sub-programmes 2.1.3.1. and 2.1.3.8. are shared between AGA and the Plant Production and Protection Division (AGP). Resources for the publication of the World Animal Review are distributed among the substantive sub-programmes. Sub-programme 2.1.3.7. covers the activities of Regional Offices.
9. The improved utilization of grassland, forage and feed resources is essential to improve animal production and protect the environment. The focus of the programme is on increasing the productivity of pastures and rangelands through: the development and introduction of improved management techniques in the semi-arid tropics, including the introduction of forage legumes and fodder shrubs and trees; the implementation of integrated crop/livestock systems to produce more feed-stuffs; and the utilization as feed of crop residues and agricultural by-products such as molasses. This work includes attention to biological nitrogen fixation and soil conservation and is carried out in close cooperation with various international organizations, particularly Unesco and UNEP, and makes extensive use of cooperative arrangements with national institutions.
10. The programme supports the development of veterinary infrastructures and economic planning of disease control. Direct action for the control of major livestock diseases such as rinderpest, trypanosomiasis, foot-and-mouth disease (FMD), and tick-borne diseases is a major component. Chronic diseases caused by helminth parasites, nutritional and reproductive diseases, as well as improvements in animal production hygiene, are also covered with the aim of reducing food losses. Action to prevent the spread of major infectious diseases over international boundaries, by strengthening veterinary services, laboratory facilities and vaccination programmes, is given particular attention. The programme also promotes the transfer and adaptation of new biotechnological methods in animal health, particularly disease diagnosis and vaccine production.
11. The programme promotes the selection and upgrading of local stock through artificial insemination programmes, using breeding material from other countries, including that obtained under FAO's Bull Semen Donation Scheme. Attention is also given to the conservation of local breeds, with emphasis on livestock breeds and species adapted to specific conditions, such as trypanotolerant livestock. The preservation of unique breeds is being promoted through the establishment of data banks and regional gene banks, through multiple ovulation and embryo transfer, thereby making an essential contribution to maintaining biological diversity. Characterization of local breeds using newly created descriptors permits better decisions for selection and conservation.
12. In dairy and meat development, off-farm activities are given special attention as they are the logical and necessary extension of production processes. The emphasis is on the development of village processing facilities to serve as marketing outlets for smallholders, so that this sector can be assisted in moving from a subsistence to a market economy. Improved technologies need to be developed for the production of indigenous dairy products. Advantage should be taken of the new challenges for dairy development in developing countries due to changes

in the world dairy commodity situation, which have dramatically altered price and availability of milk powder and butteroil. With regard to meat, the development of low-cost meat preservation methods and the establishment of small-scale slaughter facilities will be promoted.

13. The programme actively promotes sheep and goat production in addition to large ruminant production, including buffaloes. Poultry, rabbit and other small animal production is a high priority, in view of its importance for the small farmer. The programme makes extensive use of TCDC and network arrangements and is intensifying efforts to transfer and adapt new biotechnology methods in appropriate areas of animal production such as reproduction, genetics, growth and lactation and fibre digestibility.

Plan of Action

- Sub-programme 2.1.3.1: Grassland, Forage and Feed Resources

Programme Element Title		1988-89 Approved Budget	Programme 1990-91 Change *	1990-91 Budget	Percent of Sub- Programme
01	Integrated Management of Arid and Semi-arid Grazing Resources (EMASAR)	360	43	403	23
02	Development of Pastures in Humid Areas	306	58	364	21
03	Biological Nitrogen Fixation	128	0	128	7
04	Feed Resources Utilization	315	250	565	32
05	Feeding Systems and Feed Security	365	(175)	190	11
06	Application of Biotechnology in Animal Nutrition	101	14	115	7
Total		1 575	190	1 765	100
Cost Increases 1990-91				260	
1990-91 Budget				2 025	

* Increase (Decrease)

14. Work on the improvement of grazing resources in the arid and semi-arid regions of the world, with a major emphasis on Africa and the Near East, promotes an integrated approach to grazing-land development. Specific activities are directed to the better management of natural grazing lands, investigating the possible role of fodder trees in semi-arid pastoral systems, the development of fodder production in salt-affected areas, the establishment of pilot demonstration areas and practical field training. This element is being strengthened.

15. The element on development of pastures emphasizes the intensification of pasture productivity in temperate, sub-tropical and tropical humid and sub-humid areas through more effective grassland/livestock interaction and the integration of fodder production into cropping patterns. Support will continue to be provided to regional working groups through which improved grassland/fodder crop systems are being demonstrated: the group in southeast Asia deals with the important smallholder sector and puts special emphasis on the production of high-quality fodder to supplement crop residues as animal food; in East Africa, a group recently set up will coordinate national programmes in grassland management and fodder production; another group operates in the Central America and Caribbean Region and a project proposal has recently been submitted to UNDP; in the Maghreb countries, the working group concentrates on the integration of forage legumes into cereal rotations and improved systems of fodder conservation; in the Altiplano of South America, a group is under formation. A severe constraint to pasture development in the past has been the supply of seed of adapted varieties in countries where the ecological conditions are dissimilar to those of the major producers and exporters; local testing and pilot seed production is being carried out through these groups to ensure supply of suitable seed in concerned countries. This element is also to be strengthened and includes work on grassland technology adapted to the fragile ecosystems of mountainous areas in the Himalayas and Andean countries where effective watershed management is of vital importance. There will be close cooperation with the new Unesco/MAB project, located in Senegal, which deals with sahelian ecosystems and which will enable the establishment of long-term programmes related to the rehabilitation of grazing resources. Training remains an important component and will continue, in cooperation with Unesco/MAB.
16. Activities on biological nitrogen fixation will continue to emphasize the use of legumes (pasture legumes, fodder crops, fodder trees and fodder shrubs) in grazing-land improvement programmes. Support will be provided to national institutions for the organization of demonstrations on fodder and grain legumes. Special attention will be given to outreach programmes so that the relevant technology can be carried to the farmer and the farmer's field. Cooperation will be ensured with MIRCEN/UNEP programmes in Africa and South America. Activities on inoculants will be pursued in association with Sub-programme 2.1.1.3: Soil Management and Fertilizers.
17. The element on feed resources utilization will give particular attention to resource-poor farmers, hence the substantial net increase. For this purpose, task forces will be further expanded for the introduction of molasses blocks and straw utilization. Task force members will be used as advisers not only by respective governments but also by neighbouring countries to strengthen local expertise. Greater emphasis will be given to nutrition of monogastric animals and task forces will promote feeding based on resources produced on the farm as alternative (non-cereal) feeding systems.
18. Work on feeding systems and feed security is expected to continue, but will receive reduced resources. Locally available feeds in tropical countries include roots, tubers and other crops, such as cassava, sweet potatoes, bananas and plantains. These feed resources can be produced, processed and used on the farm. An expert consultation will be

convened to issue recommendations on the implementation of practical feeding systems and make proposals for future research and development activities.

19. Legume and forage trees offer solutions to both the protein and fuel problems in many developing countries and recent experiences indicate that there are many species of trees and shrubs which lead to protein-rich animal feed. These plants also contribute to improvement of soil fertility and preservation of the environment. A consultation with participation of experts in agroforestry, pasture improvement and animal nutrition will be held, to recommend immediately applicable technologies and future research needs.
20. Continued emphasis will be given to biotechnology applied to animal nutrition. The related element will cover technologies with potentially immediate application, in the production of single cell protein from fermentable substrates derived from biomass. Genetic engineering also offers a means of raising both protein and lipid yields.

- Sub-programme 2.1.3.2: Animal Health

Programme Element Title		1988-89 Approved Budget	Programme 1990-91 Change *	Budget	Percent of Sub- Programme
01	Disease Intelligence/Veterinary Services Development	916	303	1 219	26
02	Control of Infectious Diseases	1 537	(169)	1 368	29
03	Control of Parasitic Diseases	517	3	520	11
04	Control of Tsetse/Trypanosomiasis	1 068	18	1 086	23
05	Application of Biotechnology in Animal Health	369	112	481	10
Total		4 407	267	4 674	100
Cost Increases 1990-91				713	
1990-91 Budget				5 387	

* Increase (Decrease)

21. No major changes are foreseen in regard to animal disease control, including emergency activities. However, new initiatives are proposed for the control of chronic diseases and for the development and transfer of biotechnologies in animal health. The Commission on Livestock Development for Latin America and the Caribbean will be convened, to be preceded by an expert consultation on the promotion of livestock production in the region.

22. Continued FAO support is required for the strengthening of national veterinary services and diagnostic capabilities. This includes training on animal disease diagnosis and control, disease intelligence and dissemination of information on animal diseases, e.g. through the FAO/OIE/WHO Animal Health Yearbook. Attention will be given to the cost/effectiveness of animal health programmes by means of an expert consultation on the subject, with a view to elaborating improved animal health policies. Collaboration with other international organizations will be strengthened and a publication on veterinary services in developing countries will be prepared. An expert consultation on reduction of food losses due to non-infectious diseases will be held with a view to identifying priorities and proposing concrete actions.
23. FAO will also continue its support for the control of major diseases, with which it is closely associated, especially in the developing world. Dual action is required, i.e. against emergency diseases, as well as in support of international programmes for the control/eradication of major contagious diseases. The programme for the control of foot-and-mouth disease will continue, including coordination of national and regional activities for the control and eradication of the disease and the maintenance of the buffer zone in southeast Europe. FMD problems will also be addressed in the Near East, South America, Africa and southern Asia Regions. A seminar on emergency action against FMD will be organized for Mediterranean countries. In Europe, the favourable situation so far will be maintained through the activities of the European Commission for the Control of FMD, financed under Trust Fund arrangements. Efforts will continue towards the global eradication of rinderpest through the OAU-executed Pan-African Rinderpest Campaign (PARC), the UNDP-assisted Western Asia Rinderpest Eradication Campaign (WAREC) and the South Asia Rinderpest Campaign (SAREC). It is recalled that previous attempts to control rinderpest on a regional basis have never fully succeeded. Of major importance, in this context, will be the strengthening of vaccine production through improved quality control and in order to address other animal diseases and ensure a better geographical coverage. An expert consultation will be held on the effects of low quality veterinary vaccines and a manual on veterinary laboratory equipment for developing countries will be issued. An expert consultation on advances in biotechnology for rinderpest eradication will be held.
24. The recent appearance in North Africa of the American screwworm fly requires determined action for the control and eventual eradication of this devastating pest. Extra-budgetary resources would also need to be mobilized. A serious problem is that insect populations may breed slowly and remain undetected until well-established. Immediate steps for control need to be taken. Related activities will be implemented in close collaboration with the Joint FAO/IAEA Division (AGE).
25. Regarding parasitic diseases, it is proposed to attach greater priority to the control of helminthiasis, reproductive and nutritional diseases which have a significant impact on livestock productivity. As a first step, an expert consultation will be held on helminth diseases of livestock. Work on the control of ticks and tick-borne diseases will focus on more cost-effective control strategies. An expert consultation on tick-borne diseases of sheep and goats will be held. The eradication programme for the tropical bont tick from the Caribbean is scheduled to start in the next biennium. Manuals will be prepared on tick control and helminth parasites. The Information Circular on Tick-borne Diseases will continue to be issued.

26. Activities for the control of trypanosomiasis are carried out in close collaboration with the Joint FAO/IAEA Division (AGE) under Sub-programme 2.1.4.2. (elements 03 and 04). The introduction of simple, non-polluting control techniques which can be implemented with the participation of the local populations will be pursued. Among them are the control of tsetse fly with attractant devices or the utilization of trypanotolerant livestock. Training and extension will continue to receive high priority, as well as support to applied research. A manual on the techniques for tsetse/trypanosomiasis control will be prepared. Particular attention will continue to be given to the orderly development of cleared areas and protection of the environment. The Commission on African Animal Trypanosomiasis will be convened, as well as a Joint Meeting of the Expert Panels on Trypanosomiasis. A consultation of potential donor countries and agencies will also be held.
27. The development and transfer of new biotechnologies to developing countries will particularly cover the diagnosis of animal diseases and vaccine production. Support to training and research will be based on a network of collaborating laboratories and inter-country cooperation, as well as information exchange. A training course on animal health biotechnology is planned.

- Sub-programme 2.1.3.3: Genetic Resources

Programme Element Title		1988-89 Approved Budget	Programme 1990-91 Change * Budget	Percent of Sub- Programme
01	Animal Breeding and Genetic Resources	351	(351)	0
02	Artificial Insemination and Embryo Transfer	226	(226)	0
03	Application of Biotechnology in Animal Breeding and Genetics	152	178	39
04	Genetic Improvement of Livestock	0	297	35
05	Preservation of Valuable Endangered Indigenous Breeds	0	215	26
Total		729	113	842
Cost Increases 1990-91				107
1990-91 Budget				949

* Increase (Decrease)

28. The elements of this sub-programme have been re-arranged to reflect more accurately perceived priorities: programme element 04 groups the animal breeding components of former programme elements 01 and 02; programme element 05 corresponds to the genetic resources component of former programme element 01.
29. The rapid developments in biotechnology applications to livestock production will be closely followed. Regional networks in Asia and Latin America, established in the 1988-89 biennium, are being supported by UNDP and will need further technical and advisory support. Particular attention will be given to embryo transfer (ET) as the most promising method for the production of transgenic animals. Activities will cover advisory services, training and dissemination of scientific information to bridge the gap between developed and developing countries. The techniques of multiple ovulation and embryo transfer (MOET), which are now well established for cattle, horses, pigs, sheep and goats, and research activities in developing countries will continue to be supported through local universities or research institutes. Support will also be given to import/export of animal germplasm through embryos instead of live animals. Related training will be organized.
30. The relatively low genetic potential of indigenous breeds is one of the main constraints to efficient animal production in developing countries. Improvement of the genetic potential of these breeds will be promoted through crossbreeding with exotic breeds or within-breed selection. In this context artificial insemination is currently the most powerful tool in breeding programmes. The FAO Bull Semen Donation Scheme has achieved considerable success in providing deep-frozen bull semen for breeding programmes in member countries. New approaches such as the open nucleus breeding system (ONBS) will be supported for pigs and ruminants in all regions. Particular attention will be given to trypanotolerant breeds in Africa, to the buffalo and native pig breeds in Asia and to the camelidae species in Latin America. Genetic screening of native populations of cattle, buffaloes, sheep and goats will permit the selection of outstanding animals for the constitution of open nucleus herds and the distribution to farmers of superior animals for utilization through natural mating or artificial insemination.
31. The preservation of valuable local breeds will receive particular attention to maintain genetic diversity, as the basis for further improvement. The establishment of regional animal gene banks for the storage of embryos and semen from breeds, which are either in danger of extinction or which are of unique value for production, started in 1988. The next phase will necessitate strong FAO support through TCDC activities and training in the identification and sampling of endangered breeds and in the cryogenic processing and disease control of stored germplasm. The Committee on Agriculture proposed that FAO should consider the complex technical, legal, financial and institutional aspects of a global programme for animal genetic resources. A global data bank on animal genetic resources, based on the methodology developed jointly by FAO and UNEP and in collaboration with the European Association of Animal Production (EAAP) will become fully operational in 1990-91.

- Sub-programme 2.1.3.4: Dairy Development

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Integrated Dairy Development	543	(48)	495	58
02	Promotion and Improvement of Technology of Dairy Products	326	(154)	172	20
03	Code of Principles on Milk and Milk Products	63	(31)	32	4
04	Dairy Training and Education	0	160	160	19
Total		932	(73)	859	100
Cost Increases 1990-91				158	
1990-91 Budget				1 017	

* Increase (Decrease)

32. The proposed dairy development activities, including the International Scheme for the Coordination of Dairy Development (ISCDD), are mainly derived from current programmes but will be focused on a limited number of topics such as dairying among smallholders and the improvement of indigenous milk products technology. Dairy training activities are transferred from Sub-programme 2.1.3.5.
33. The promotion of integrated dairy development will aim at ensuring the participation of small milk producers and the commitment of recipient governments. The recent reduction in world stocks of dairy commodities should stimulate the growth of milk production in developing countries. Activities in 1990-91 will include further development of the integrated model dairy projects already established or initiated in four regions. An expert consultation on dairy development will review progress in developing these model projects for integrated dairy development and elaborate new dairying strategies for developing countries.
34. Technology development will focus on indigenous dairy products. This will include processing techniques, facilities and equipment which are suitable at village and herd or flock levels. Emphasis will be given to goat and sheep milk, which are of particular relevance to smallholders in remote rural areas, including transhumant and nomadic people. In addition, an appraisal will be made of the availability of processing facilities in developing countries and potential for dairy equipment manufacture in selected developing countries.

35. Manpower development programmes are an integral part of dairy development. Priority will be given to the training of teachers and to the promotion of institutional links between educational establishments at all levels and applied research centres.
36. The Codex Milk Committee, for which FAO provides the secretariat, will hold its Twenty-second Session in Rome in 1990. Two publications are planned on traditional fermented milk and the production and processing of sheep and goat milk.

- Sub-programme 2.1.3.5: Meat Development

Programme Element Title	1988-89 Approved Budget	Programme 1990-91 Change *	1990-91 Budget	Percent of Sub- Programme
01 Meat Technology and Hygiene	754	(69)	685	63
02 Meat Training and Education (formerly Livestock Education)	536	(140)	396	37
Total	1 290	(209)	1 081	100
Cost Increases 1990-91			175	
1990-91 Budget			1 256	

* Increase (Decrease)

37. Work on rural meat technology and hygiene aims at providing market outlets for smallholders and improving quality and safety of meat production for the rural population.
38. Under the International Meat Development Scheme (IMDS), modules have been designed for incorporation into village meat industries with a small-scale slaughterhouse for cattle, small ruminants and/or pigs as the core element, supplemented by meat cutting, by-product handling and meat processing facilities. Model projects of this nature will facilitate their replication at area, country or regional levels. The construction of pilot plants will be supported in the Pacific, Latin America and other regions.
39. Low-cost meat preservation methods will also receive attention. In most developing regions, an uninterrupted cold chain is not available. In periods of surplus, low-cost methods are required to preserve meat and meat products. FAO has promoted simple methods of meat drying and further investigations of traditional meat preservation methods will be carried out. A seminar on meat development in Asia will concentrate on these technologies.
40. Technical assistance will also be given to medium-size meat industries as these plants can also constitute an important market outlet for the

medium and small producers. In countries with adequate infrastructures, this assistance will focus on regional slaughterhouses to facilitate meat inspection, control of animal diseases and waste disposal. Publications are planned based on studies on small-scale and medium-size slaughterhouses.

41. The element on meat training and education will include an international seminar in Africa for teachers on meat preservation and slaughtering techniques. Institutional links will be promoted on a TCDC basis, to ensure feedback from the vocational to the technical level institutes and from there to professional level education and applied research institutes.

- Sub-programme 2.1.3.6: Livestock Production

Programme Element Title	1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01 Animal Production Systems	1 182	(12)	1 170	84
02 Application of Biotechnology in Livestock Production	238	(22)	216	16
Total	1 420	(34)	1 386	100
Cost Increases 1990-91 1990-91 Budget			209 1 595	

* Increase (Decrease)

42. The element on livestock production systems will continue to centre on the development and demonstration of effective strategies and integrated programmes. An expert consultation on effective strategies for the development of livestock production is to be held. Special attention will be given to small animals (sheep, goats, pigs, poultry and rabbits) and the sustainability of production systems through the improvement of indigenous breeds.

43. Work on all species is conceived within a common approach: (i) preparation of publications and training materials on simple practical technologies for the improvement of traditional livestock systems; (ii) establishment of regional task forces to support national experts in developing these practical technologies; (iii) initiation of pilot regional training-cum-guided development projects, on a TCDC basis, to train extension staff and demonstrate these technologies.

44. Ongoing network activities on sheep and goats will be expanded. Work on pigs and poultry production will particularly address backyard production systems, through exploitation of locally produced feeds and crop residues and low-cost genetic improvement programmes, based on genetic screening of indigenous breeds.

45. The promotion of integrated fish-cum-water fowl production systems will be pursued. An expert consultation on water fowl production in Africa will be held, coupled with the publication of an up-to-date review on the subject. Training manuals will be prepared on feed resources utilization in pig production, on rural poultry production and on small animal farming systems.
46. Work on buffalo production will give emphasis to practical herd management programmes to reduce calf mortality, increase calving rate and optimize use of buffaloes for milk, meat and draught power. Genetic screening of selected buffalo breeds will be initiated in order to establish open nucleus herds and to study the efficiency in multi-purpose uses of buffaloes. It is planned to intensify work on camelidae development and a manual will be prepared on the subject.
47. Biotechnology work will include the identification of new technologies and applied research contracts with institutions in developing countries to evaluate these new technologies in the development of animal production. Activities will also involve training, TCDC and the promotion of inter-country collaboration.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region			Fund		Unit	
Global	4 275	RP	18 943	AGA	17 768	
Africa	30 774	APHCA	150	AGO	55 628	
Asia and Pacific	15 260	EUFMD	405	AGP	1 206	
Near East	15 534	Govt. Programmes	23 181	AGR	23	
Europe	1 663	OSRO	83	IAA	83	
Latin America	10 523	Other TF	1 779	Regional Offices	3 321	
		UNDP	33 296			
		UNEP	23			
		WFP	169			
TOTAL	78 029		78 029		78 029	

Programme 2.1.4 - Research and Technology Development

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
2.1.4.1 Research Development	2 815	100	252	3 167	13.2	13 412
2.1.4.2 Agricultural Applications of Isotopes and Biotechnology	2 996	60	379	3 435	14.0	0
2.1.4.3 AGRIS and CARIS	3 784	286	587	4 657	24.0	533
2.1.4.4 Remote Sensing and Agrometeorology	1 294	520	329	2 143	22.0	914
2.1.4.5 Environment and Energy	1 551	7	235	1 793	13.9	0
2.1.4.7 Regional Offices	1 357	(374)	111	1 094	11.0	0
2.1.4.8 Field Programme Support	436	162	149	747	10.0	1 040
2.1.4.9 Programme Management	1 086	0	240	1 326	16.9	0
Programme 2.1.4 Total	15 319	761	2 282	18 362	125.0	15 899

* Increase (Decrease)

Medium-term Objectives

1. Future increases in food and agricultural production will depend, in large measure, on continuous advances in agricultural knowledge and technologies, as components of sustainable production systems. This will require effective research capacity to generate and adapt such technologies and ensure their proper application. Although progress has been made in many developing countries, national policies and capabilities in research still require strengthening. The transfer of technology needs to be actively pursued as developing countries will increasingly make use of advanced methodologies and techniques developed elsewhere when they are applicable to local conditions.
2. One of the most important objectives in research and technology development will remain the strengthening of national research capacity in developing countries. Particular attention will be paid to policy for and planning of agricultural research; enhancing national capabilities in the organization and management of research systems and programmes; and increasing developing countries' capacities for evaluation, adaptation and adoption of traditional and new emerging technologies to meet the needs of their farmers. Research and technology will need to be orientated towards sustainable agricultural development.

3. Work at the national level will continue to be complemented by support to international research efforts, particularly those under the auspices of the Consultative Group on International Agricultural Research (CGIAR), of which FAO is a co-sponsor; FAO also hosts the secretariat for its Technical Advisory Committee (TAC). Increased emphasis will be given to the review and implementation of international research priorities, and to the promotion of inter-country research cooperation.
4. The joint research programme with the International Atomic Energy Agency (IAEA) on nuclear techniques in food and agriculture will emphasize the efficiency of fertilizer and water use, induced mutation and in vitro culture techniques for the improvement of food crops, pest control through use of the Sterile Insect Technique (SIT), the use of immuno-assay for livestock disease diagnosis and improvement in animal reproduction with increased involvement of molecular biology. Activities will continue on the irradiation of food to increase storage life, prevent food-borne diseases and in insect disinfection for quarantine purposes and the use of nuclear techniques in studies of metabolism and environmental effects of agrochemicals.
5. Effective decision-making, research, education and technology transfer in agriculture all depend on timely access to relevant information. The sharing among nations of the world's accumulated knowledge can best be achieved through effective international cooperative mechanisms for the worldwide exchange of information. At the same time, national and regional agricultural documentation capacities are required to interact with the international systems and to provide the information support to national and regional agricultural research and development plans. The main objective is to organize worldwide cooperation in the exchange of bibliographic information through AGRIS (International Information System for the Agricultural Sciences and Technology) and in the exchange of information on agricultural research activities in or related to developing countries through CARIS (Current Agricultural Research Information System), and to assist in strengthening national and regional agricultural documentation infrastructures.
6. The main objective in remote sensing is to assist developing countries and foster their self-reliance in the application of remote sensing. This is done through manpower development, strengthening of institutional arrangements and infrastructures, advisory services and pilot projects. Satellite monitoring of environmental conditions, particularly as related to early warning systems for food security and locust control, will be further strengthened. The integration of remote sensing and agrometeorology will be enhanced through the transfer of the agrometeorology group from AGP to AGR. Liaison will be maintained with national and international institutions for the coordination of remote sensing activities related to renewable natural resources.
7. Regarding environmental matters, attention will be given: to the preservation of ecosystems and pollution control to ensure sustainable development; to environmental planning and management including environmental impact assessment of projects; and to the development of national and regional conservation strategies. Technical assistance will be provided to strengthen national institutions in the development of environmental policies and programmes and in the integration of environmental concerns in the formulation and implementation of development projects.

8. The main objectives as regards rural energy are to provide assistance on rural energy planning and to encourage the development of small-scale, decentralized energy technologies for agriculture and rural development. Particular emphasis will be given to the integration of energy issues into rural and agricultural development plans and to training related to rural energy assessment and planning. Inter-country and regional cooperation will be improved through networks and the exchange of information will be promoted in both the environment and energy fields.

Focus of the Programme

9. Research and technology development permeates activities throughout the Organization. Programme 2.1.4 provides for the coordination of these activities to enhance FAO's assistance to member countries. Moreover, the programme includes liaison and collaboration in matters of research, science and technology for development, nuclear science application in agriculture, remote sensing, agrometeorology, environment and rural energy, with a wide range of institutions and organizations in and outside the UN system.
10. Responsibility for the implementation of Sub-programmes 2.1.4.1, 2.1.4.4, 2.1.4.5, 2.1.4.8 and 2.1.4.9 rests with the Research and Technology Development Division (AGR). The Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture (AGE) is responsible for Sub-programme 2.1.4.2 and the Library and Documentation Systems Division (GIL) is responsible for Sub-programme 2.1.4.3. Sub-programme 2.1.4.7 covers the activities of Regional Offices and Joint Divisions under the programme.
11. In the area of research development, the programme is mainly concerned with the overall institutional aspects of research, while the individual technical programmes deal with the technical aspects of research. Thus, the programme accounts for only a small part of the Organization's overall efforts involving research. Furthermore, the programme concentrates on a limited number of subjects. One of these is the strengthening of national agricultural research systems in policy formulation and programme planning and management. Another is strengthening their capacity to develop, assess, adapt and transfer technology. Advice and assistance is also provided to member countries to identify their research requirements and increasing attention is being given to research and technology components for sustaining resource potentials. The programme promotes inter-country cooperation and interaction of national research systems among themselves and with the international agricultural research centres, particularly those of the CGIAR. As host of the secretariat for the Technical Advisory Committee of the CGIAR, the programme has a strong comparative advantage for work in this area. The programme also ensures liaison with UN and other international organizations concerned with science and technology for development, particularly in the formulation of joint activities.
12. Sub-programme 2.1.4.2 is carried out by the Joint FAO/IAEA Division of Nuclear Applications in Food and Agriculture which is located in Vienna, Austria. The programme aims at strengthening capabilities in member countries to apply isotopes, radiation and related techniques to improve agricultural production and preserve agricultural products. The sub-programme is increasingly oriented towards the application of nuclear-aided biotechnology in research. A new programme element on

molecular biology will emphasize plant breeding but will also strengthen biotechnology applications in crop nutrition, animal reproduction and health and insect control. The sub-programme implements each biennium some 12-16 training courses, organizes 200-300 fellowships and provides for 400-500 research contracts with national agricultural research establishments in over 40 coordinated research programmes, supported by the FAO/IAEA Agricultural Sector of the IAEA Seibersdorf Laboratory.

13. The sub-programme also supports over 200 IAEA- and UNDP-funded technical cooperation projects. The joint FAO/IAEA programme is carried out in close cooperation with other technical programmes of FAO as well as with institutes of the CGIAR system.
14. The main scope of Sub-programme 2.1.4.3 is to ensure coordination of two worldwide cooperative information systems. AGRIS (bibliographic data) and CARIS (research project data) operate on the premise that each participating centre submits data originating in respective countries and, in return, users in the country have access to the whole database. The coordination of these two systems by FAO is essential for more effective participation and use. This is complemented by field activities aiming at strengthening national and regional agricultural information infrastructures and the integration of AGRIS and CARIS within national structures through participating centres. The dissemination of the systems' outputs is being improved by using modern technologies and will be further promoted by user training.
15. The programme provides remote sensing support to a wide range of activities related to agriculture, fisheries and forestry. The work is carried out in accordance with the recommendations of the UN Committee on the Peaceful Uses of Outer Space and UNISPACE 1982 which recognized that the FAO Remote Sensing Centre is responsible within the UN system for remote sensing applied to renewable natural resources. The programme concentrates on assisting member countries in the application of remote sensing technology through development of local skills and technology transfer. The programme also provides support to field projects and disseminates information on new remote sensing developments of particular relevance to developing countries. The programme often acts as a catalyst, particularly in its training component, in the larger part supported by various UN organizations and other sources. Trust Fund support is also available for satellite monitoring of environmental conditions, which provides increasingly important information for locust control operations and drought warning.
16. The scope of the programme will be broadened through the transfer of the Agrometeorology Group from AGP to AGR. The integration of agrometeorology with remote sensing, for instance satellite monitoring of vegetation and precipitation in Africa, will result in a rationalization of the services provided in these areas, with the main beneficiaries being GIEWS, ECLC and technical support activities to member countries. In addition, this will permit the expansion of meteorological applications related to interdisciplinary issues, such as sustainable development, as well as those related to fisheries and forestry.
17. The programme provides for interdepartmental coordination of FAO's wide-ranging activities in environment and energy with strong incidence

on sustainable development. It includes the secretariat of the Inter-departmental Working Group on Environment and Energy. The programme also ensures liaison with UN and non-UN international organizations concerned with environment and energy, with emphasis being given to development of joint activities. The FAO/UNEP Cooperative Programme, which supports selected FAO environmental activities, is a prominent example. In view of the diversity of environmental and energy problems, the programme is, by necessity, selective in its approach. Concerning environment, the focus is on policy guidance and assistance in the integration of environmental policies and concerns into the development process. Environmental planning and management is supported particularly through environmental impact assessments, development of conservation strategies and training on environmental aspects of food and agricultural production. In the area of energy, the focus is on energy assessment and planning for rural and agricultural development, the strengthening of national capabilities and the development of appropriate rural energy technologies.

Plan of Action

- Sub-programme 2.1.4.1: Research Development

Programme Element Title		1988-89 Approved Budget	Programme 1990-91 Change *	1990-91 Budget	Percent of Sub- Programme
01	Strengthening Research Management Capabilities	453	(95)	358	12
02	Research Review Missions and Advisory Services	294	27	321	11
03	Review and Analysis of Agricultural Research Systems	367	(367)	0	0
04	Technology Assessment and Transfer	305	135	440	15
05	Research Policy, Planning and Information	0	500	500	17
06	International Agricultural Research Support	1 127	100	1 227	42
07	Science and Technology Coordination	76	(7)	69	2
08	Inter-Country Research Cooperation	193	(193)	0	0
Total		2 815	100	2 915	100
Cost Increases 1990-91				252	
1990-91 Budget				3 167	

* Increase (Decrease)

18. Strengthening research management capabilities will be sought through the development of research management training materials, the organization of research management training courses and workshops and support to national programmes for improving research management. In particular, the increasing requests for research management training are to be met by two regional workshops/training courses for research directors, programme leaders and senior research scientists. In addition, joint sponsorship and financing of additional courses will be explored with interested donor agencies as well as by enlisting support from regional and international organizations and institutions, hence the reduction in the Regular Programme provision.
19. Research review missions and advisory services will receive a small increase. Assistance of this type often leads to larger scale external assistance and investment projects for strengthening national agricultural research. The requests for advisory services continue to increase, particularly in relation to national agricultural research priorities. It will be important to ensure participation of specialized institutions in research review missions.
20. The additional resources for the element technology assessment and transfer will permit strengthening of developing countries' capacities for evaluation, adaptation and transfer of traditional and new emerging technologies to farmers. In addition, corresponding activities will be transferred from the element on inter-country research cooperation, which is being eliminated. The element will include an activity relating research and technology to women's roles in agricultural production.
21. The new programme element on research policy, planning and information is to respond to an increasing number of requests for research policy and planning assistance from developing countries. This element will consolidate and expand the analytical activities previously undertaken under the element on review and analysis of agricultural research systems, which is also being eliminated. The means of action will be advisory services, training support, dissemination of research information and inter-country cooperation including TCDC arrangements. The element will also incorporate work on research and technology orientations for sustainable agricultural development to complement work undertaken by the new Sub-programme 2.1.1.6: Sustaining Resource Potentials.
22. The programme element on international agricultural research support includes FAO's contribution to the secretariat of the Technical Advisory Committee (TAC) of the CGIAR. It covers cooperation with the international agricultural research centres, collaboration with international and regional groups concerned with agricultural research, including the Special Programme for African Agricultural Research (SPAAR) and liaison with OECD, EEC and other international organizations. The contribution to TAC, which is jointly sponsored by FAO, UNDP and the World Bank, needs to be increased by US\$ 100 000 for the biennium. The element will give attention to fostering cooperation in policy and strategy development and the establishment of research priorities.
23. Collaboration with other organizations in the implementation of the Programme of Action of the United Nations Conference for Science and Technology for Development is carried out under the programme element

for science and technology coordination. Work will include participation in the ACC Task Force on Science and Science and Technology for Development and its working groups.

- Sub-programme 2.1.4.2: Agricultural Applications of Isotopes and Biotechnology

Programme Element Title		1988-89 Approved Budget	Programme 1990-91 Change * Budget	Percent of Sub- Programme
01	Soil Fertility, Irrigation and Crop Production	346	(29)	317 10
02	Plant Breeding and Genetics	477	(29)	448 15
03	Animal Production and Health	532	(91)	441 14
04	Insect and Pest Control	777	(108)	669 22
05	Agrochemicals and Residues	601	(29)	572 19
06	Food Preservation	263	0	263 9
07	Agricultural Applications of Molecular Biology	0	346	346 11
Total		2 996	60	3 056 100
Cost Increases 1990-91				379
1990-91 Budget				3 435

* Increase (Decrease)

24. Research will continue on efficient use of water, fertilizer and soil resources in crop production. Particular emphasis will be placed on three aspects: (i) increased productivity and nitrogen fixation in grain legumes by management and variety selection; (ii) nitrogen fixation by trees and their role in maintaining soil fertility and in soil conservation; and (iii) the identification of genotypes of crops and trees with high efficiency in uptake and use of phosphorus and water. These are important components of low input sustainable agriculture. Work will continue on the amelioration of saline soils and the use of local rock phosphates as fertilizers.

25. Assistance to plant breeders will continue for supplementing existing genetic resources for plant improvement by induced mutants. This Programme element involves research and training on mutation induction, including the safe handling of mutagens, mutant selection and the use of mutants in cross breeding. Induced mutation in combination with in vitro techniques are already playing an important role, particularly for improving vegetatively propagated crops (root and tuber crops, bananas and plantains, woody perennials), but also with regard to major cereals (doubled haploid method). Advances in molecular genetics will permit the inclusion of gene engineering and DNA technology into breeding efforts for crop improvement in developing countries.

26. Regarding animal production and health, nuclear and immuno-assay methods are used to improve the productivity of ruminant livestock in tropical and sub-tropical regions by optimizing nutrition and reproductive efficiency and improving disease diagnosis, surveillance and control. Work will concentrate on cattle, sheep, goats and camelidae in Africa, Asia and Latin America, and on the development of standardized diagnostic methods for rinderpest, foot-and-mouth disease, trypanosomiasis, babesiosis and brucellosis. A number of these tests will use monoclonal antibodies and labelled DNA probes.
27. The Sterile Insect Technique will continue to be developed and applied in large-scale integrated field projects to eradicate tsetse flies in Africa and the Mediterranean fruit fly in North Africa and Latin America. For the eradication of the American screwworm fly from North Africa the Sterile Insect Technique will also be required. Research on tsetse will aim at increasing efficiency in mass-rearing operations and reducing costs. Work will continue on genetic sexing of the Mediterranean fruit fly, to improve the economics of medfly mass-rearing. Both Mediterranean fruit fly and tsetse fly rearing will include genetic engineering/recombinant DNA technology. In addition, research will be undertaken to develop Bacillus thuringiensis for use in medfly bait sprays. New methods of insect control, such as F-1 Sterility, will also be developed for controlling the pest Lepidoptera in several developing countries.
28. There will be strengthening of research for assessing the impact of agrochemical use, and developing methods and procedures for their efficient and safe application. Further work is planned on guidelines and methods for minimizing the effect of radionuclides on agriculture, in case of accidental release of radioactivity into the environment. Activities will also include research on the use of local micro-organisms for the bioconversion of agricultural residues of high lignocellulosic content into products fit for animal nutrition and the evaluation of relevant bioconversion processes and products.
29. In the area of food preservation, emphasis will be placed on the harmonization of national regulations in line with the Codex General Standard for Irradiated Food and Recommended International Code of Practice for the Operation of Radiation Facilities Used for Treatment of Food. Also, attention will be given to process control in relation to irradiation of food to ensure its correct application for the protection of consumers. Training will focus on regulatory requirements and the control of the process by regulatory authorities in member countries, as well as the correct operation of facilities used for food treatment. Research will concentrate on the application of food irradiation to reduce food-borne diseases, used either alone or in combination with other processes, as well as methods of detecting irradiated food after the fact, in order to strengthen control of irradiated food in trade. Collaboration will continue with WHO, the Codex Alimentarius Commission and the International Consultative Group on Food Irradiation, to further acceptance of the Codex General Standard for Irradiated Foods by countries and to facilitate the practical application of food irradiation processing.
30. Advances in crop breeding and nutrition, animal production, insect control and biomass utilization are increasingly benefiting from molecular biology. The new programme element will emphasize molecular biology applications for crop improvement, while also supporting

ongoing and new activities in the other fields. Activities will be based on research networks with support from the laboratory and incorporate training.

31. Provision is made, within the relevant elements in the sub-programme for FAO's contribution to the costs of meetings of FAO/IAEA panels of experts and to FAO/IAEA seminars and symposia. The sub-programme will be supplemented by extra-budgetary resources from IAEA's Technical Cooperation and Assistance Programme and other funds administered by the IAEA as well as FAO's TCP.

Plan of Action

- Sub-programme 2.1.4.3: AGRIS and CARIS

Programme Element Title		1988-89 Approved Budget	Programme 1990-91 Change * Budget	Percent of Sub- Programme
01	Coordination of AGRIS and CARIS Participating Centres	530	55	585 14
02	Strengthening of AGRIS and CARIS Centres	470	104	574 14
03	Systems Development and Maintenance	562	0	562 14
04	AGRIS Data Base Maintenance, Outputs and Services	1 539	143	1 682 41
05	CARIS Data Base Maintenance, Outputs and Services	147	3	150 4
06	Support to Documentation Projects	198	22	220 5
07	Systems Management	338	(41)	297 7
Total		3 784	286	4 070 100
Cost Increases 1990-91 1990-91 Budget				587 4 657

* Increase (Decrease)

32. AGRIS, with nearly 160 participating centres, is the world's largest information network and the first to operate on a multilingual basis on a large scale. CARIS, with more than 112 participating centres, is the only international system dealing with current agricultural research in, or related to, developing countries. Increased resources are needed to match the growth of these two systems, maintain efficient coordination, strengthen participating centres, cover the actual costs of processing their input and provide required outputs and services.

Part of this increase will be covered by a shift of US\$ 85 000 from Programme 5.1.2, implemented by the same division.

33. The coordination of AGRIS and CARIS centres is effected by means of a technical consultation, publication of a liaison bulletin and, above all, by responding to the individual requirements of each centre. Efforts will be made to maintain the required data quality and to ensure more complete coverage of information both geographically and by subject. Savings will result from combining the AGRIS and CARIS Technical Consultations into one biennial consultation. A new post of Information Systems Officer is included. Improved communication with the centres and the provision of regular feedback on quality, timeliness and quantity of their input will be ensured.
34. As the value of the AGRIS and CARIS systems depends on the ability of national and regional centres to participate fully and effectively in them, strengthening of the AGRIS and CARIS centres constitutes a central element. This is accomplished through: the preparation and distribution, in the various languages, of working tools, technical manuals and training materials, including self-instructional training packages; training of trainers and training missions to centres; and training activities at Headquarters and in the field organized in cooperation with other interested organizations. The availability of microcomputers to virtually all AGRIS and CARIS centres makes the preparation and distribution of computer-assisted training packages a practical possibility. Assistance in resolving technical problems and in promoting use of the systems at the national level is provided through field missions and visits to Headquarters by national staff. The increase under this element will permit meeting the needs for computer-assisted training materials and additional training missions to enable centres to make effective use of modern technologies for both input/output operations.
35. With the maturation of AGRIS and CARIS, current priorities of systems development include further microcomputer methods for input and output, modern printing technologies for production, at the lowest possible cost, of tailored outputs, the use of optical media for the storage and distribution of data and continued maintenance of the AGROVOC thesaurus, now widely used as the de facto standard multilingual agricultural indexing vocabulary.
36. An increase of US\$ 143 000 is required to deal with the growth of the AGRIS database (250 000 new records are expected during the biennium, bringing the total to about 1.8 million). This programme element includes centralized processing of data submitted by participating countries and organizations and lies at the heart of the system. It covers an increasing range of multilingual output products and services. These include the continued publication of Agrindex in English, French and Spanish editions (approximately 8000 pages per year for each language), maintaining the AGRIS database and making it, or portions of it, available on magnetic tape, optical disk, diskette, and online via telecommunication networks. Special services will continue to be provided to developing countries, such as national bibliographies, retrospective searches and selective dissemination of information (SDI). Specialized bibliographies will be produced in cooperation with interested divisions at FAO. The implementation of an exchange coupon scheme for document delivery will be pursued.

37. A small increase is also required for CARIS database maintenance. Though CARIS continues to grow, the increased use of microcomputers in CARIS centres results in less input being received in manual form and, consequently, lower processing costs. National and regional CARIS directories will continue to be provided to participating centres on diskettes or in laser print format. The CARIS database will be maintained for online access at Headquarters and made available, in whole or in part, to participating centres on magnetic tape or diskettes.
38. The element on support to agricultural information and documentation projects assists developing countries, on request, in the establishing/strengthening of their national or regional agricultural information and documentation infrastructures. This assistance takes the form of direct advice, documentation projects financed by UNDP, Trust Funds and TCP. Technical backstopping is also provided to other FAO projects with documentation components. Manuals and technical notes for field projects will be updated.
39. Systems management includes programming, monitoring and general operating expenses and is adjusted in accordance with expected operating costs.

Sub-programme 2.1.4.4: Remote Sensing and Agrometeorology

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Coordination of FAO Space Activities	225	(100)	125	7
02	Advisory Services on Space Applications and Pilot Action Studies	281	(30)	251	14
03	Remote Sensing Education and Training	260	(62)	198	11
04	Agrometeorology	0	612	612	34
05	Satellite Monitoring of Environmental Conditions	261	100	361	20
06	Information and Support Services	267	0	267	15
Total		1 294	520	1 814	100
Cost Increases 1990-91 1990-91 Budget				329 2 143	

* Increase (Decrease)

40. The programme element on coordination of space activities provides for the coordination of FAO's remote sensing and agrometeorological activities within FAO and liaison with other organizations concerned with the development of space applications. The Remote Sensing Centre is the focal point within the UN system for remote sensing applied to renewable natural resources. Provision is included for FAO participation in the ACC Inter-agency mechanism which coordinates the UN activities on the peaceful uses of outer space. The reduction is due to non-recurring meeting activities but will not affect the coordination function of this element.
41. Advisory services on space applications and pilot action studies are provided to developing countries for the application of appropriate remote sensing techniques, systems and data. The element also contributes to strengthening national capabilities in the use of remote sensing technology and monitors national follow-up upon the completion of technical assistance projects. The element is attracting extra-budgetary funding for pilot action studies, hence the small reduction of US\$ 30 000.
42. The element on remote sensing education and training covers the Regular Programme contribution to remote sensing training activities. These training activities are mostly funded by extra-budgetary resources through co-sponsorship with other organizations including the UN, Unesco, UNDRO, WMO and ESA. In this regard, four regional, six inter-regional and ten national training courses are planned for 1990-91. In the same vein, anticipated extra-budgetary resources permit a reduction of US\$ 62 000.
43. Agrometeorology is transferred from Programme 2.1.2. It will respond to the priority on crop/weather monitoring in the 1990-91 biennium. The inclusion of agrometeorology in this sub-programme will lead to a rationalization of the services related to agrometeorological and satellite monitoring of environmental conditions with the main beneficiaries being GIEWS, ECLO and the technical support activities to member countries. In addition to the ongoing collection, analysis and dissemination of agroclimatological information, this element will provide for in-house coordination of agrometeorology activities and participation in international agrometeorological and agroclimatological initiatives undertaken in cooperation with other UN organizations, including WMO, Unesco and UNEP.
44. Satellite monitoring of environmental conditions is being strengthened. This programme element was significantly enhanced during 1988-89, through extra-budgetary support, for the development of a satellite-based system for generation of precipitation and vegetation estimates at ten-day intervals. The system provides information to GIEWS, ECLO, OSRO, technical divisions and users at the sub-regional and national level in Africa. During 1990-91 these services will be expanded to the Near East, Southwest Asia and possibly other areas. A post of P-5 Senior Officer, Environmental Monitoring, will be established to provide for the management and supervision of both the Regular Programme and Trust Fund activities. An expert consultation on agricultural drought forecasting based on agrometeorology and remote sensing data will be organized.
45. No change is proposed in the provision of information and support services to field projects and member countries. The element will

continue to support some 60 field projects annually as well as to provide comprehensive information on satellite images and aerial photographs. The establishment of regional and sub-regional remote sensing networks will continue to be promoted and dissemination of information on remote sensing developments and their application will be ensured. A remote sensing information bulletin will be published and two expert consultations are planned, one on the agricultural application of satellite remote sensing and another on the application of high resolution satellite data for forest inventory and mapping.

- Sub-Programme 2.1.4.5: Environment and Energy

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Environmental Planning and Management	403	(28)	375	24
02	Integration of Environment into the Development Process	172	73	245	16
03	Interagency Cooperation and Inter-departmental Coordination on Environment	246	0	246	16
04	Energy Assessment and Planning for Rural and Agricultural Development	157	0	157	10
05	Energy Technology Development	276	(38)	238	15
06	Interagency Cooperation and Inter-departmental Coordination on Energy	110	0	110	7
07	Information Exchange on Environment and Energy	187	0	187	12
Total		1 551	7	1 558	100
Cost Increases 1990-91				235	
1990-91 Budget				1 793	

* Increase (Decrease)

46. The element on environmental planning and management will continue to emphasize environmental impact assessments, which were given particular attention during 1988-89. It will focus on implementation of environmental impact assessment procedures, including training in their use, development of environmental profiles in selected countries, identification of emerging environmental issues, and advisory services to developing countries concerning national environmental planning and management. Resources associated with non-recurring studies and analyses completed in 1988-89 will be redeployed to strengthen the element on integration of environment into the development process.

47. The main change proposed for the sub-programme is for strengthening policy guidance in the integration of environment into the development process. This responds to an increasing number of requests from developing countries for assistance in this area. Advisory services and policy advice will be provided for environmentally sound development and in the development of national conservation strategies, including training on environmental issues in relation to food and agricultural production. The element includes cooperation with UNEP and IUCN in the formulation of environmentally sound development planning methodologies. This element will complement and contribute to the work undertaken by the new Sub-programme 2.1.1.6: Sustaining Resource Potentials.
48. An important responsibility of the sub-programme is inter-agency cooperation and interdepartmental coordination on environment. The FAO/UNEP Cooperative Programme will continue, with the size of this programme expected to remain at the same level of about 12-15 ongoing projects. Cooperation with UNEP will also be maintained in the implementation of the second System-wide Medium-term Environment Programme (SWMTEP). Additional activities will include participation in the Ecosystem Conservation Group, cooperation with IUCN on ecosystems conservation and cooperation with Unesco in its Man and the Biosphere (MAB) Programme. Cooperation will also continue with the UN and other organizations on environmental aspects of sustainable development.
49. The element on energy assessment and planning for rural and agricultural development will continue to be emphasized in 1990-91. However, with the development of methodologies and approaches to energy planning now nearing completion, attention will shift to advisory services and training activities. Three regional workshops on rural energy planning are scheduled. Regular Programme resources will be maintained at the same level, with extra-budgetary resources being sought to expand work in this area. Attention will be given to the participation of women in rural energy activities.
50. Energy technology development includes promoting the development and utilization of small-scale decentralized energy technologies in agriculture and rural areas, based upon the appropriate use of both commercial and renewable energy. A reduction of US\$ 38 000 in this area is feasible since extra-budgetary funds will be sought for energy technology development activities. Energy-related networks in Asia and the Pacific, Latin America and the Caribbean and Africa Regions will be strengthened. Assistance will also be provided to developing countries in the development, testing and diffusion of energy technologies, particularly through national institutions and TCDC arrangements. An expert consultation on solar drying and a seminar on gasification of biomass are planned.
51. Within the programme element on inter-agency cooperation and inter-departmental coordination on energy, cooperation will continue with the UN and other organizations in follow-up to the UN Conference on New and Renewable Sources of Energy (NRSE). This will include organization of an expert consultation on the role of renewable energy sources in rural development, in preparation for discussion of rural energy by the UN Intergovernmental Committee on NRSE at its next session.

52. Information exchange on environment and energy will be ensured, inter alia, through an information bulletin on environment and energy giving current news and information briefs and a semi-annual bulletin of a more technical nature on proven technologies in the area of environment and energy. Assistance will continue to be provided to RAPA for the preparation of a regional bulletin on energy. The element will also aim at increasing awareness, among rural women, of environmental conservation and other concerns such as the effect of environmental pollution on nutrition and health.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit	
Global	11 156	RP	18 362	AGE	3 435
Africa	6 840	Govt. Programmes	4 647	AGO	12 173
Asia and Pacific	7 350	TAC	2 520	AGR	12 369
Near East	3 918	UNDP	8 730	GIL	5 190
Europe	984	WFP	2	Regional Offices	1 094
Latin America	4 013				
TOTAL	34 261		34 261		34 261

Programme 2.1.5 - Rural Development

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
2.1.5.1.1 Agricultural Education, Extension and Training	3 163	10	511	3 684	27.0	33 161
2.1.5.1.2 Development Support Communications	2 273	(300)	412	2 385	31.1	6 450
2.1.5.2 Agrarian Reform and Land Settlement	2 559	39	372	2 970	18.0	4 893
2.1.5.3 Rural Institutions and Employment	3 858	52	609	4 519	28.4	45 254
2.1.5.4 Women in Agriculture and Rural Development	2 510	218	408	3 136	20.3	16 437
2.1.5.5 Marketing	1 343	(100)	166	1 409	7.9	5 205
2.1.5.6 Credit	1 315	100	164	1 579	8.0	1 393
2.1.5.7 Regional Offices	6 040	73	815	6 928	67.2	288
2.1.5.8 Field Programme Support	3 033	13	693	3 739	46.6	8 334
2.1.5.9 Programme Management	1 972	36	357	2 365	28.0	0
Programme 2.1.5 Total	28 066	141	4 507	32 714	282.6	121 415

* Increase (Decrease)

Medium-term Objectives

1. The basic objectives of rural development, set out in the Declaration of Principles and Programme of Action adopted by the World Conference on Agrarian Reform and Rural Development (WCARRD), continue to guide the overall orientations of Programme 2.1.5, while maintaining the required flexibility to react to changing conditions. The importance of the participatory approach, now widely recognized as a vital element in rural development, will, for instance, need stronger reflection in planning and delivery of technical activities. Likewise, the integration of women in development will have to permeate information collection, analytical, policy advisory and training work. In the latter effort, the objectives are set for the long and medium term by the Plan of Action for the Integration of Women in Development adopted by the FAO Council. The programme is also related to the Tropical Forestry Action Plan, as rural development is an important element of the latter.

2. In line with the above, the programme's major objective is to provide assistance to member countries in formulating, implementing, monitoring and evaluating rural development policies, strategies and programmes. The established network of regional centres for rural development will permit the expansion of monitoring and evaluation at the regional level. At the global level, systematic and fully documented monitoring of trends and issues in rural development will be carried out. Coordination with the activities of other UN agencies will take place, inter alia, through the ACC Task Force on Rural Development.
3. Special attention will continue to be given to human resources development and institution building. In the field of agricultural education, assistance will be provided in developing education programmes at different levels, strengthening agricultural extension services and promoting adequate and low-cost training methods and materials. Priority target groups will include rural women, youth and small farmers. Advice to member countries on educational and training policies will also cover matters such as population education. Locally-adapted communication methods and technology will be widely promoted.
4. The collection of data and the analysis of progress, in relation to rural poverty alleviation, will also be necessary, making use of the FAO-developed guidelines on socio-economic indicators. In cooperation with other UN agencies through the ACC Task Force on Rural Development, periodic reports will be provided to the FAO Governing Bodies and the ECOSOC on achievements and difficulties encountered. Advice to governments on specific agrarian issues will be provided, in particular on land tenure systems, women farmers' rights, training and institution building for agrarian transformation and the involvement of NGOs in the implementation of agrarian reform and rural development.
5. The programme will need to reinforce work on rural people's participation through their own organizations; therefore, policy formulation and monitoring of participatory mechanisms will be given continued support, aiming at increased effectiveness of training of group leaders and closer involvement of women's groups.
6. As regards institution building, the programme will pay attention to both organizational and administrative aspects of rural institutions in order to ensure, inter alia, adequate provision of inputs and services to small farmers, including women producers. The promotion of off-farm employment for marginalized rural groups will also be necessary as labour intensive agricultural growth by itself is not sufficient to alleviate rural poverty.
7. Following the recommendations made by Member Governments at different international fora, the programme will spearhead recognition of women's roles and specific concerns by all technical units and institutions. These concerns should be reflected in all data collection, policy analysis, advice and programming work. In this regard, training will be organized for FAO staff at all levels to ensure the systematic integration of gender issues into the technical aspects of agricultural and rural development. Case studies and data collection are to be undertaken for reporting to FAO bodies as well as for use by Member Governments and other UN agencies. This permeation by women-related concerns regards both Regular and Field Programmes, for instance covering production of staple crops, generation and transfer of technology for women farmers, and provision of inputs and services.

The inclusion of population concepts in rural women's programmes, as well as the strengthening of curricula and upgrading of national skills in home economics, are other important objectives.

8. Continued attention will be given to assisting member countries in the formulation of appropriate food marketing policies and in small-farm marketing development, especially in the light of marketing liberalization which forms part generally of overall structural adjustment measures. The efficiency of government marketing boards will have to be ensured in the light of changing policies and operating conditions.
9. Rural finance systems will be further strengthened, to enable a wider range of savings mobilization and credit services to be provided to the rural population. The increasing requests from member countries for assistance in crop and livestock insurance and risk management policies will be met. Support will continue to be channelled through the regional agricultural credit associations, established under the Scheme for Agricultural Credit Development (SACRED).

Focus of the Programme

10. The programme aims at achieving balanced socio-economic development by addressing, in an integrated way, the upgrading and mobilization of human resources, the improvement of social conditions and institutional factors, the efficient use of and equitable access to natural resources and reversing bias against rural areas. Besides WCARRD, the programme integrates principles of other plans such as the Plan of Action on Women in Development, the Regional Plan for Latin America and the Caribbean, the TFAP, etc..
11. Responsibility for implementation of the programme is shared by the Human Resources, Institutions and Agrarian Reform Division (ESH) for Sub-programmes 2.1.5.1.1, 2.1.5.2, 2.1.5.3 and 2.1.5.4, the Information Division (GII) for Sub-programme 2.1.5.1.2 and the Agricultural Services Division (AGS) for Sub-programmes 2.1.5.5 and 2.1.5.6. Sub-programme 2.1.5.7 includes the activities of the Regional Offices and Joint Divisions. The provisions for Sub-programmes 2.1.5.8 and 2.1.5.9 are shared between ESH and AGS.
12. In the area of agricultural education, extension and training, the programme concentrates on advancing knowledge, skills and attitudes for improving agricultural production, processing and marketing. This is done by: improving formal agricultural education and training systems; institution building; and developing training programmes targeted to the most disadvantaged groups. The programme also provides assistance on management and modernization of agricultural extension systems with due emphasis on low-cost and effective methodologies. Population education permeates all agricultural education and training activities.
13. Work on communication for rural development makes use of a variety of communication media and channels (mass, group and interpersonal) to inform, motivate and train rural populations. Radio is still the most effective mass medium to reach large numbers of rural people with simple messages, hence continued training of national staff in rural broadcasting. Governments are also increasingly requesting assistance in applying low-cost audiovisual media to improve the quality and outreach of educational and training activities, particularly at the grass-roots level. Applied research and evaluation is carried out of different communication media and approaches. The establishment of regional

networks is promoted to share knowledge and expertise among national institutions. The sub-programme implements a large population communication programme, with financing from UNFPA, and also cooperates with other UN agencies such as UNDP, UNICEF, Unesco and the World Bank.

14. The programme is concerned with monitoring and evaluation of progress made in agrarian reform and rural development. It analyses and disseminates information regarding experiences on land tenure, land settlement, production structures and land fragmentation. Assistance in formulating national rural development policies and programmes is provided through inter-agency multidisciplinary policy missions and through the regional rural development centres. The programme also provides a forum for discussion at regional level, with participation of other UN agencies, of achievements of and constraints to rural development.
15. Regarding rural institutions and employment, the programme uses the results of the compilation and analysis of different experiences to provide assistance to Member Governments in building up rural institutions and in promoting employment opportunities in the rural areas. The promotion of small farmers' and agricultural workers' organizations, especially cooperatives, is actively pursued. Work on people's participation through their organizations entails collaboration, where necessary, with NGOs. The programme includes servicing of the ACC Task Force on Rural Development which is the main mechanism for promoting concerted action among UN system agencies.
16. As regards women in agricultural and rural development, the programme has been restructured to respond to the resolutions of the 1987 FAO Conference and the 1988 Council. It is now focused on promoting projects to enhance participation of women, collecting and reporting statistics and indicators disaggregated by gender, and undertaking a substantial training programme. The programme also assists Member Governments in strengthening national capacities in developing and evaluating women-related guidelines and checklists and in modernizing programmes of home economics. The programme pays particular attention to the promotion and inclusion of population concepts into rural development and rural women activities.
17. The main focus of the programme in marketing is on assisting developing countries, especially in Africa, in their reviews of food marketing policies and plans. Adjustments are identified that can enhance the efficiency and competitiveness of food marketing agencies and national programmes. Continued attention is given to marketing extension programmes for rural communities, and access of small farmers and women to marketing services. The programme supports TCDC networks, which generally concentrate on training and exchange of experience.
18. The mobilization of rural savings and the provision of credit have been recognized as a motive force in rural development. The traditional financial agents in the rural sector need to be encouraged to provide a wider range of credit/saving facilities to both the individual farmer and to formal and informal producer groups. Joint programmes are promoted with NGOs and close links ensured with savings bank members of the Scheme for Agricultural Credit Development. Greater collaboration is expected with national and regional agricultural development banks, especially in terms of management training, information and monitoring

and evaluation. Following the second Expert Consultation on Risk Management, greater activity is anticipated on crop and livestock insurance.

Plan of Action

- Sub-programme 2.1.5.1.1: Agricultural Education, Extension and Training

Programme Element Title	1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01 Special Programme in Support of Africa	510	(510)	0	0
02 Strategies and Policies for Agricultural Education and Training	0	489	489	15
03 Agricultural Extension and Training	1 235	30	1 265	40
04 Education for Agricultural and Rural Development	534	65	599	19
05 Training-Orientation, Monitoring and Evaluation	258	0	258	8
06 FAO/Unesco/ILO Joint Action Programme	268	(60)	208	7
07 General Support and Direct Assistance to Countries	358	(4)	354	11
Total	3 163	10	3 173	100
Cost Increases 1990-91			511	
1990-91 Budget			3 684	

* Increase (Decrease)

19. In order to assist in the design and implementation of appropriate strategies and policies for agricultural education and training, a new programme element has been created. The corresponding resources stem from the special programme element for Africa which has completed its analytical and catalytic tasks. Attention to Africa will, of course, continue under all elements. Planned activities include four round tables, two expert panel meetings, several case studies and country missions. Through these activities, policy options will be identified, specific programmes will be formulated and their implementation, at regional and country level, will be facilitated. In addition, a

revised FAO strategy will be elaborated in the field of agricultural education and training. Priority attention will be given to the least developed countries. In these countries, a minimum core of adequately trained agricultural manpower is still required and their correct utilization ensured once formal training is completed.

20. The element on agricultural extension and training will address: (a) the cost-effectiveness of agricultural extension. Assistance to member countries will centre on the management of national extension agencies and programmes, with involvement of national NGOs wherever feasible; (b) extension planning and programming, including packaging and testing of low-cost multimedia technical extension materials through surveys, planning workshops, etc.. This will be conducted in approximately twelve countries in different regions; (c) specific programmes for women farmers and rural youth through advisory activities and workshops in about seven to ten countries. Three country workshops on rural youth programmes are planned, together with four issues of the youth information bulletin; (d) the integration of population, farm management, credit and marketing information into established extension services, through workshops, pilot activities and sharing of information materials; and (e) materials for training extension staff on participatory approaches.
21. Under the element on agricultural education, advice will continue to be given on curriculum development, teaching methodologies and institutional management, in the form of on-the-spot consultancies, training courses and written materials. Upon completion of a major case study on higher agricultural education in 1988-89, the results will be published, focusing on alternative approaches to programme and institutional development. Other activities will include a symposium on strategies for higher agricultural education, advisory missions and national training courses.
22. Under the programme element on training and orientation on rural development, regular assessments of progress in training activities under all FAO programmes will be carried out, which will constitute the basis for reporting on FAO training activities to the Governing Bodies and for programming future actions. Provision is made to service the Interdepartmental Working Group on Training (IDWGT). The quality and effectiveness of training will be given further attention through the publication and dissemination of two guides: A Trainer's Guide to Evaluation; and Guide for Developing Educational/Training Materials.
23. In the context of the FAO/Unesco/ILO Joint Action Programme, collaboration with these agencies in the field of agricultural education and training will continue through the Inter-Secretariat Working Group on Agricultural Education, Science and Training. Coordination covers both headquarters and field levels. The joint publication, Training for Agriculture and Rural Development, will be continued at a reduced cost, hence the small decrease.
24. Assistance to member countries in the fields of agricultural training, extension and education, particularly through programme and project formulation, will continue to be provided as and when required, approximately at the same level as in the 1988-89 biennium.

- Sub-programme 2.1.5.1.2: Development Support Communications

Programme Element Title	1988-89 Approved Budget	Programme 1990-91 Change *	Budget	Percent of Sub- Programme
01 Development of Rural Communication Programmes	1 345	(155)	1 190	60
02 Development of Audio-Visual Training Methodologies and Materials	928	(145)	783	40
Total	2 273	(300)	1 973	100
Cost Increases 1990-91			412	
1990-91 Budget			2 385	

* Increase (Decrease)

25. The reduction in the allocation represents merely a more accurate distribution of staff costs within the GII Division which also implements Programme 5.1.1: Public Information. It should thus be seen rather as a correction of the base.
26. Under the element development of rural communication programmes, advisory services and related training will be provided to Member Governments to establish rural communication activities in support of agricultural and rural development. A series of training manuals and packages on different communication techniques and media which have a proven record of effective use in rural areas, will be produced for use by national personnel.
27. Regarding the development of audiovisual training methodologies and materials, advisory, training and production support services will be provided to a broad range of users of low-cost audiovisual media, including video, to support field training activities. Headquarters-based production of audiovisual materials will receive lower priority, with the exception of materials which have regional or inter-regional impact, and motivational and training materials for least developed countries, where national capacity does not exist. In the field of research and evaluation, a series of case studies will be carried out, based on field evaluations of the impact, comparative costs and effectiveness of different communication approaches and media. The Regular Programme resources constitute core funding for a large field-oriented programme.

Sub-programme 2.1.5.2: Agrarian Reform and Land Settlement

Programme Element Title		1988-89 Approved Budget	Programme 1990-91 Change * Budget	Percent of Sub- Programme
01	Assistance in Analysis and Formulation of National Policies and Programmes	760	(172)	588 23
02	Assistance in Agrarian Reform and Production Structures	794	(202)	592 23
03	Support to TCDC through Regional Centres	62	50	112 4
04	Support to Countries in Monitoring and Evaluation	398	357	755 29
05	Analysis and Dissemination of Information	348	(69)	279 11
06	General Support, including Direct Assistance to Countries	197	75	272 10
Total		2 559	39	2 598 100
Cost Increases 1990-91				372
1990-91 Budget				2 970

* Increase (Decrease)

28. Under analysis and formulation of national policies and programmes, assistance will be given to member countries upon request, through inter-agency missions and other joint action with UN system agencies. This activity will build on the inter-agency missions, governmental consultations and other meetings held in connection with the tenth anniversary of WCARRD in 1989. This element is reduced since fewer meetings are scheduled during 1990-91. Resources will be transferred to cover the cost of the Third Progress Report on WCARRD Follow-up.
29. Assistance in agrarian reform and production structures remains a core activity of the sub-programme. There will be emphasis on institutional mechanisms for traditional land tenure and production systems and on protecting the rights of the small-scale producers and women farmers. The element will carry out studies, training workshops and seminars. Information will be collected and analysed in relation to new trends in land tenure. Some resources have also been transferred for the preparation of the Third Progress Report on WCARRD Follow-up.
30. The increase in the element on support to TCDC is linked to the establishment of the new Centre for Agrarian Reform and Rural Development in the Near East (CARDNE), which held its first

organizational meeting in 1988. The regional centres will continue to play a key role for exchange of information and for studies and training programmes related to rural development.

31. The increase in the allocation for support to countries in monitoring and evaluation is due to stepped-up assistance to member countries in the preparation of the four-yearly Progress Report on achieving the mandate of WCARRD. This report will include a critical analysis on the impact of the Programme of Action and suggest general and/or regional re-orientations required.
32. Under analysis and dissemination of information, reports will be produced, based on the technical and policy material prepared for the commemoration of WCARRD's tenth anniversary. The Bulletin on Land Reform, Land Settlement and Cooperatives will continue to be issued.
33. Direct support to member countries will continue to constitute a priority area within available resources. Provision is increased slightly due to the foreseen additional assistance and activities linked to the preparation of the Third Progress Report on WCARRD Follow-up.

- Sub-programme 2.1.5.3: Rural Institutions and Employment

Programme Element Title		1988-89 Approved Budget	Programme 1990-91 Change *	Budget	Percent of Sub- Programme
01	Rural Development Strategies and Rural Poverty	1 000	10	1 010	26
02	Rural Employment & Manpower Planning	482	14	496	13
03	People's Participation, Rural Cooperatives and Non-Governmental Organizations	1 330	(25)	1 305	33
04	Organization and Administration for Rural Development	714	19	733	19
05	General Support and Direct Assistance to Member Countries	332	34	366	9
Total		3 858	52	3 910	100
Cost Increases 1990-91				609	
1990-91 Budget				4 519	

* Increase (Decrease)

34. Assistance in designing rural development strategies and programmes will focus on smallholders and agricultural workers, as well as on increased food production and the alleviation of rural poverty. Support will be provided for national workshops to review existing rural development strategies. Provision is made for servicing two meetings of the ACC Task Force on Rural Development, along with promotion of inter-agency collaboration, at regional and country levels, in the areas of people's participation and monitoring and evaluation of rural development projects and programmes. A publication, Rural Development, will be issued twice a year highlighting priority areas in rural development.
35. Rural employment opportunities will be promoted through policy formulation and advice to governments, emphasizing access to both farm and non-farm employment opportunities for rural people. Inter-regional and regional workshops (Horn of Africa, Near East) will be held on the socio-economic aspects of pastoral development. Attention will be paid to the analysis of links between choice of technology and employment generation in agriculture, including technology affecting women's employment, with a view to developing a global strategy and guidelines for future FAO action in employment/technology relationships. Research will be undertaken on manpower requirements in key sub-sectors and manpower utilization problems will be further analysed. These activities will include a series of country-level studies in which exchange of information and experience among national researchers will feature prominently.
36. Active participation of small farmers and rural workers will be promoted through the establishment and strengthening of autonomous self-financed and self-managed farmers' and other rural organizations. Work will entail further preparation of field training materials on farmer groups and organizations, development of guidelines, as well as the integration of participatory approaches into overall rural development strategies, programmes and projects. Collaboration with NGOs and international trade unions will continue. Appropriate management systems for agricultural cooperatives will be promoted, through the collection and analysis of data, as well as the dissemination of guidelines on monitoring and evaluation of small farmers' cooperatives and similar organizations in selected countries. Missions will continue to be fielded for the development of cooperative policies, structures and programmes jointly with the International Cooperative Alliance and ILO. It is also foreseen to assist in the establishment of cooperative networks in Asia and Latin America which would facilitate collaboration between governments and cooperatives, at country and regional levels.
37. Based on the findings of case studies already undertaken, in relation to the organization, management and administration of services to small farmers and agricultural workers, assistance to Member Governments will aim at improving institutional capacities and strengthening agricultural services' delivery systems. The involvement of small farmers' representatives and/or organizations in decision-making will be considered through regional and sub-regional round tables and by organizing national workshops upon request. The programme will also provide backstopping to a network of pilot projects in Latin America, established under extra-budgetary resources.

38. In anticipation of increased requests for direct assistance, mainly as a result of the Plan of Action for the Latin America and Caribbean Region, a small increase is made under the corresponding programme element.

- Sub-programme 2.1.5.4: Women in Agriculture and Rural Development

Programme Element Title	1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01 Training on Women in Development	0	572	572	21
02 Project Development and Monitoring	766	(374)	392	14
03 Policy and Planning on Women in Development	569	(144)	425	16
04 Population and Rural Development	24	50	74	3
05 Home Economics and Related Training	528	(265)	263	10
06 Assistance to Member Governments on Women in Development	168	215	383	14
07 Documentation and Data Collection	0	265	265	10
08 General Support	455	(101)	354	13
Total	2 510	218	2 728	100
Cost Increases 1990-91			408	
1990-91 Budget			3 136	

* Increase (Decrease)

39. The title of this sub-programme has been changed as recommended by the Programme Committee. During the 1990-91 biennium, the sub-programme will be guided by the Plan of Action for the Integration of Women in Development approved by the Ninety-fourth Session of the FAO Council, and by the priority areas which have been identified in response to its recommendations. Accordingly, the constituting programme elements have been restructured. In addition, a higher programme increase is made over the level foreseen in the Summary Programme of Work and Budget.
40. The element on training on women in development will aim at increasing the capability of FAO staff to take account of the specific concerns of rural women in their respective technical fields, and to integrate gender issues into development programmes and projects, with emphasis on the economic and technical aspects of women's roles in agricultural production. Materials will be developed for this training programme.

41. The element on project development and monitoring will promote women's integration in mainstream project activities on economic and technical aspects of agricultural production, forestry and fisheries. The Inter-departmental Working Group on Women in Development will be strengthened and a task force will be created to assist in the promotion and monitoring of the implementation of the Plan of Action. The establishment in technical units of additional focal points and core groups which would foster the inclusion of women concerns from the initial project formulation stage to post facto evaluation, will be sought. Existing project portfolios will be examined, with a view to analysing successful/unsuccessful projects and to draw out the lessons learned. These efforts will help identify new projects in the pipeline or at the early design stage which have the potential to become demonstration models.
42. Policy and planning on women in development will continue the development and evaluation of women-in-development guidelines and checklists in cooperation with technical services. These guidelines will be used by project identification and design teams in project implementation, monitoring and evaluation and will be continuously refined according to experience gained in their use. The element will follow the comprehensive guidelines for action, adopted by the World Conference to Review and Appraise the Achievements of the UN Decade for Women (the so-called Nairobi Forward-looking Strategies (NFLS)), reinforced by the World Survey on the Role of Women in Development and the UN System-wide Medium-term Plan for Women and Development. Inter-agency mechanisms, the periodic reviews and appraisal of progress on the advancement of women, and joint women-in-development activities with United Nations system organizations will permit coordinated action based on the expertise, programmes and activities of individual organizations. The element will also include promotion of agricultural professions among women and will support FAO units to increase recruitment and monitor the promotion of female staff in FAO.
43. Population and rural development will address demographic concerns as they affect women in agricultural and rural development. Population components will be added to ongoing and pipeline projects, introduced in pilot activities in agriculture, fisheries and forestry, in training materials and workshops, and in developing modules and guidelines for project planners. Inter-regional projects in the Near East, Latin America and Asia will aim at improving the quality of life and status of rural women and their families, as well as providing grassroots level information to governments on the relationship between women and demographic factors in agricultural development.
44. The element on home economics and related training will focus on the redesign of home economics and agricultural curricula in training institutions to reflect refined understanding of women's and men's roles in rural societies and economies. Curricula-design exercises are planned in all regions, through specialized teams and workshops.
45. Documentation and data collection will support collaborative efforts in ^{UN} agencies, as well as within FAO, in gathering and reporting statistics disaggregated by gender. It will formulate useful indicators of women's participation in agriculture and related fields,

and publish results of regional and sub-regional studies on women's legal and de facto access to land, credit, agricultural technology, agricultural education and training and rural organization membership.

46. Assistance to Member Governments on women in development will cover especially ministries of agriculture, to build national capacities to implement the Action Plan. The strengthening of women-in-agriculture units will be sought. Review missions and national consultations will be organized for this purpose. The element on general support covers general programming work in relation to technical assistance activities to member countries.

- Sub-programme 2.1.5.5: Marketing

Programme Element Title	1988-89 Approved Budget	Programme 1990-91 Change * Budget	Percent of Sub- Programme
01 Small Farmer Marketing Development	350	(49)	301 24
02 Food Marketing Policies and Planning	384	25	409 33
03 Strengthening Management Efficiency of Government Marketing Boards	353	13	366 29
04 Inputs Marketing Improvement Programme	256	(89)	167 13
Total	1 343	(100)	1 243 100
Cost Increases 1990-91			166
1990-91 Budget			1 409

* Increase (Decrease)

47. Activities on small farmer marketing development have been re-oriented towards the introduction or strengthening of marketing extension services, cereal banks development, and the promotion of group marketing, following the completion of general promotional activities. The allocation for this element has been slightly reduced.
48. Activities on food marketing policies and planning receive an increased allocation in view of the problems faced by many countries, especially in Africa, due to the practice of subsidizing food marketing agencies and providing food subsidies. The liberalization of agricultural marketing and the promotion of private trade are basic aspects of structural adjustment programmes being pursued by many countries, which look to FAO for technical advice.

49. Activities on strengthening management efficiency of government marketing boards also receive an increased allocation to support TCDC workshops and training activities. Member countries will be assisted in re-aligning the operations of marketing agencies to changing policy and operational conditions.
50. The training and publications activities under the inputs marketing improvement programme were largely completed in the 1988-89 biennium. This programme will now concentrate on effective marketing systems to meet the needs of small farmers, and provide planning and policy advice in complementarity with other agencies. Continued collaboration will be ensured with the Fertilizer Industry Advisory Committee (FIAC) Working Party on Fertilizer Marketing and Credit. Training materials and case studies will be funded by FIAC.

- Sub-programme 2.1.5.6: Credit

Programme Element Title		1988-89 Approved Budget	Programme 1990-91 Change *	Budget	Percent of Sub- Programme
01	Rural Finance - Policies and Structures	434	(58)	376	27
02	SACRED and Support to Agricultural Credit Associations	350	122	472	33
03	Agricultural Banking - Role and Operations	321	13	334	24
04	Risk Management	210	23	233	16
Total		1 315	100	1 415	100
Cost Increases 1990-91				164	
1990-91 Budget				1 579	

* Increase (Decrease)

51. The former element on rural domestic resources and institution building is re-oriented towards rural finance, policies and structures, to cover policy aspects and structural arrangements in rural finance for improved services to rural people and the mobilization of local resources. SACRED-linked activities have been transferred to the next programme element.
52. The element on SACRED and support to agricultural credit associations is being strengthened with an additional allocation of US\$ 122 000. This will facilitate the coordination of support to member countries through the regional agricultural credit associations (RACAs) and with extra-budgetary support through SACRED.

53. Activities on risk management receive an overall increased allocation of US\$ 23 000. However, since the resources for the Second Global Expert Consultation on Crop Insurance are being reprogrammed, the real increase is somewhat greater for providing direct support and advice to member countries. The objective is to minimize the risks involved in lending to small farmers and other disadvantaged groups. Additional guidelines will be prepared on the basis of successful operations in selected countries.
54. The new programme element on agricultural banking, its role and operation encompasses the former activities on monitoring and evaluation. The role of agricultural banks will receive special attention in order to provide a wider range of cost-effective services to customers.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit
Global	5 789	RP	32 714	AGA 4 437
Africa	85 027	FFH/AD	326	AGO 107 937
Asia and Pacific	30 643	Govt. Programmes	39 631	AGS 3 884
Near East	12 044	OSRO	85	DDA 117
Europe	4 546	Other TF	4 723	DDF 194
Latin America	16 080	UNDP	70 744	ESD 1 144
		UNFPA	5 574	ESH 21 065
		WFP	332	ESP 75
				GII 7 975
				IAA 85
				Regional Offices 7 216
TOTAL	154 129		154 129	154 129

Programme 2.1.6 - Nutrition

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
2.1.6.1 Food and Nutrition Assessment	2 073	(208)	287	2 152	14.2	0
2.1.6.2 Nutrition Programmes	2 543	147	407	3 097	21.2	1 642
2.1.6.3 Food Control and Consumer Protection	1 516	168	269	1 953	14.7	1 897
2.1.6.4 Nutrition Policy at Country Level	1 640	402	265	2 307	13.6	538
2.1.6.5 Joint FAO/WHO Food Standards Programme (Codex Alimentarius)	3 059	10	608	3 677	24.0	635
2.1.6.7 Regional Offices	1 346	53	177	1 576	16.1	0
2.1.6.8 Field Programme Support	1 994	(421)	250	1 823	16.8	1 000
2.1.6.9 Programme Management	1 006	0	235	1 241	17.5	0
Programme 2.1.6 Total	15 177	151	2 498	17 826	138.1	5 712

* Increase (Decrease)

Medium-term Objectives

1. High levels of malnutrition persist in many countries, due to a variety of factors, as do problems of food quality and safety. Severe under-nutrition prevails in several developing countries. Until the income of the poor can be sufficiently raised, direct nutrition intervention programmes in favour of the poorest and vulnerable groups will continue to be necessary. Health and trade problems related to food quality, safety and contamination remain serious in both developed and developing countries.
2. The overall objective of the programme is the achievement of adequate nutrition for all population groups, primarily through assessing and monitoring the nutrition situation and subsequently assisting in the formulation and implementation of national food policies and nutrition interventions while ensuring quality and safety of food supplies.
3. Nutritional surveillance and the collection of data on food consumption and nutrition will continue to receive high priority, both for use in FAO's own information systems and as a basis for designing national food and nutrition policies and interventions. Attention will also be directed to alleviating the nutritional consequences of structural adjustment programmes and related measures. Moreover, due consideration of nutritional aspects must be ensured in general agriculture, rural development and macro-economic policies at both national and international levels.

4. In order to improve the nutritional situation and to ensure the inclusion of nutrition considerations in agricultural and rural development policies and programmes, continued priority will be given to strengthening national nutrition institutes and planning units. Training of local staff in nutrition policy analysis and in data handling will be supported. Nutrition education will be incorporated into informal training, including use of mass media in rural and urban areas. A further important objective, to be pursued systematically, is the integration of gender issues into nutrition programmes and policies.
5. The nutritional and food control aspects of food security will be emphasized, including the promotion of traditional food crops which are valuable sources of nutrients and can play an important role in times of chronic and seasonal food shortages. In close cooperation with WFP, assistance will continue to be provided for direct nutrition improvement and feeding programmes to increase the food intakes of deprived population groups and communities. Increased attention will be given to the nutritional implications of food aid and particularly to emergency feeding programmes. There will be continued support to the UN strategy to combat vitamin A deficiency and nutritional blindness.
6. Food quality and safety systems will continue to receive high priority, with the aims of ensuring consumer protection against adulteration, contamination and fraud, permitting better access to export markets, and facilitating import control. Countries will be assisted in strengthening their capabilities to monitor and control food contamination, especially that due to specific contaminants such as radionuclides. Training will be provided on the inspection, analysis and control of food quality, and on safety problems. As a result of rapid urbanization, emphasis will be given to the nutritional and food safety aspects of street foods and itinerant vendors, and to the economic impact of such activities.
7. At the international level, high priority will continue to be given to the work of the FAO/WHO Codex Alimentarius Commission and to the evaluation of food additives, veterinary drug residues and contaminants, especially radionuclides. International food standards, limits for radionuclides, pesticide residues and other contaminants, and codes of practice will continue to be developed. Links between Codex and GATT will be strengthened. Food control training and related technical cooperation will be pursued through the use of national institutions and the work of the Codex Regional Coordinating Committees.

Focus of the Programme

8. The main areas covered by Programme 2.1.6 are: assessing food and nutrition situations at overall country and local levels; contributing to advanced knowledge of energy and nutrient requirements; designing efficient nutrition interventions and feeding programmes; providing technical assistance on food quality control, food safety and food standards; and assisting member countries in the formulation of sound nutrition policies. The programme has the important task of integrating a vast amount of information on: the overall food and nutrition situation; the population target groups requiring assistance in the short and longer term; the quantity and quality of food supplies; and the changing food consumption patterns of urban and rural populations. This needs to be translated into coherent food and nutrition strategies and policies at the country level.

9. A significant share of the programme activities is planned and carried out jointly with other UN agencies, especially WHO through the Joint FAO/WHO Food Standards Programme. Participation in the work of the ACC Sub-committee on Nutrition is ensured. Within the Organization, the programme is the focal point for food quality and safety and nutrition matters as they relate to other programmes such as fisheries, forestry, livestock, crops and general information activities, including WAICENT.
10. Responsibility for implementation of activities under Programme 2.1.6 rests exclusively with the Food Policy and Nutrition Division (ESN) and the Regional Offices/Joint Divisions. The programme comprises five substantive sub-programmes: 2.1.6.1: Food and Nutrition Assessment; 2.1.6.2: Nutrition Programmes; 2.1.6.3: Food Control and Consumer Protection; 2.1.6.4: Nutrition Policy at Country Level; and the newly-established 2.1.6.5: Joint FAO/WHO Food Standards Programme (Codex Alimentarius) which was previously merged with Sub-programme 2.1.6.3.
11. The assessment and evaluation of the food and nutrition situation in member countries is a necessary prerequisite to the timely formulation and implementation of cost-effective nutrition strategies and policies. The elaboration of nutrition country profiles and the methodological developments in nutrition surveillance and nutrition policy analysis enable the programme to contribute significantly to FAO's work on policy analysis and planning assistance. Much of this work is carried out jointly with WHO, UNICEF, the World Bank and other international organizations, as well as NGOs.
12. Particular emphasis is placed on improving the nutritional status of vulnerable groups, especially women and children, and on household food security. This includes increasing food availability at the household level, especially through the promotion of food plants traditionally grown by women farmers and in particular roots, tubers and plantains. These additional nutrient sources, especially from fruits and vegetables, are necessary for alleviating nutritional deficiency diseases such as nutritional blindness, affecting especially infants and children. Another important activity of the programme is to provide nutrition education to mothers in villages and urban areas, to rural extension agents and students and organize in-service training of nutrition technicians. The programme provides advice to the World Food Programme and ensures that food aid programmes and group feeding projects are designed in such a way that these short-term interventions reach the people most in need. It also ensures that a real impact can be attained in emergencies or in other situations of deprivation or vulnerability.
13. Programme 2.1.6 is also responsible for providing advice on consumer protection, limits for food additives, microbiological contamination, pesticide residues, other chemical contaminants, codes of hygienic practice and food labelling, both from the policy formulation and specific programme design points of view. The programme promotes inter-country cooperation at regional level, encourages TCDC initiatives and facilitates interaction of national food control authorities. The programme also provides technical assistance for strengthening national food control regulations and systems and for monitoring and control of food contaminants - including radionuclides - at different levels of the food chain. Strong emphasis is placed on training of local personnel. Growing urban populations have led to increased

attention to the nutritional, safety and economic impact of the "informal" sector of street foods, including related training programmes. This work is carried out in cooperation with WHO, the FAO/IAEA Joint Division and other international organizations.

14. Within the context of member countries' self-reliance and of the impact of adjustment policies on the most deprived groups, assistance is provided in building up national capabilities for formulating nutrition policies and strategies. Emphasis is placed on training local staff in advanced techniques of nutrition policy analysis and in data handling and interpretation. This work forms part of FAO's overall priority on policy advice. It is carried out in cooperation with the ACC Sub-Committee on Nutrition, the World Bank, UNFPA and other international governmental and non-governmental organizations.
15. Work on international food standards and the promotion of food trade is carried out through the Joint FAO/WHO Food Standards Programme and the Codex Alimentarius Commission. Through elaboration of standards for specific commodities, standards and guidelines for general application, the programme aims at protecting the health of the consumer and ensuring fair practices in food trade. It also promotes coordination of all food standards work undertaken by international governmental and non-governmental organizations, including methods of laboratory analysis. The current FAO share of joint expenditures is above 80 percent, the remainder being covered by WHO.

Plan of Action

- Sub-programme 2.1.6.1: Food and Nutrition Assessment

Programme Element Title		1988-89 Approved Budget	Programme 1990-91 Change * Budget	Percent of Sub- Programme
01	Assessment of Food and Nutrition Situation	1 212	(467)	745 40
02	Energy and Nutrient Requirements	270	0	270 14
03	Food and Nutrition Surveillance	591	259	850 46
Total		2 073	(208)	1 865 100
Cost Increases 1990-91				287
1990-91 Budget				2 152

* Increase (Decrease)

16. This sub-programme assesses food consumption levels and the nutritional status of populations - urban and rural - at both country and global level, by fostering improved techniques of data collection and analysis and providing technical assistance to member countries. A shift is made to Sub-programme 2.1.6.4, in support of national food and nutrition policies. This reduction is possible under the first element on assessment of food and nutrition situation, due to completion of

extensive data gathering activities and partial substitution of Regular Programme support to national surveys by extra-budgetary resources. This element includes the Nutrition Division's inputs to the World Agricultural Information Centre (WAICENT) project and to the Sixth World Food Survey. The continuous collation and interpretation of food and nutrition information, and the active preparation and updating of nutrition country profiles will constitute the sub-programme's major contributions to WAICENT. Preparatory work for the Sixth World Food Survey will include holding meetings to identify key issues and to discuss and prepare background documentation. The review of food composition data will continue at the request of individual member countries, while support to the International Network of Food Data Systems (INFOODS) will also continue albeit at a reduced level.

17. Within the element on energy and nutrient requirements, some changes in emphasis are possible, by reallocating resources due to the completion of two publications in the 1988-89 biennium. A Joint FAO/WHO/IAEA Expert Consultation on Trace Elements will be held and the results published. Preparatory activities will also be made for a Joint FAO/WHO Expert Consultation on Fats and Oils, to be held in the following biennium. During the 1990-91 biennium, special studies related to nutrient requirements will be conducted as an input to the Sixth World Food Survey.
18. The element on food and nutrition surveillance will be substantially increased to permit adequate support to national and sub-national food and nutrition surveillance systems, in the context of the Inter-Agency Food and Nutrition Surveillance Programme (FAO/WHO/UNICEF/ACC-SCN). In Africa and in Latin America, emphasis will be placed on assessing the nutritional impact of macro-economic policies on the poor, as a basis for more informed policy decisions and planning. In Africa, nutrition indicators will form an essential part of FAO-assisted early warning and food information systems, especially in drought-prone countries. In Asia and in Latin America, the strengthening of existing data sources especially in the area of food consumption/food production will be sought. The use of such information for surveillance purposes at community or district levels, as well as for sub-national and national planning, will be promoted. The predominantly health-oriented surveillance systems of the Caribbean islands will be broadened to include a food and nutrition information component.

- Sub-programme 2.1.6.2: Nutrition Programmes

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Integrated Nutrition Programmes in Rural and Urban Areas	456	166	622	23
02	Promotion of Local Nutritious Foods and Prevention of Specific Deficiencies	673	60	733	27
03	Nutrition Support to Food Aid and Emergency Programmes	107	127	234	9
04	Formal Nutrition Training in Universities and Agricultural Colleges	385	(385)	0	0
05	Consumer Orientation, Nutrition Education and Training	472	193	665	25
06	Food and Nutrition Periodical	300	(4)	296	11
07	Contribution to the ACC Sub-Committee on Nutrition	150	(10)	140	5
Total		2 543	147	2 690	100
Cost Increases 1990-91				407	
1990-91 Budget				3 097	

* Increase (Decrease)

19. The element dealing with integrated nutrition programmes in rural and urban areas includes design of nutrition interventions and support to their implementation in country projects and in area level development projects, with the basic objective of giving households at risk access to nutritionally balanced food baskets. Methods will be developed to integrate nutrition interventions into operational packages. Information on both rural and urban food consumption patterns will be collected and analyzed in order to formulate nutritionally balanced food baskets. Case studies will be undertaken in cooperation with nutrition units of selected countries to review procedures for adjusting reference packages to local conditions. Guidelines will be published on methods for food basket definitions and on the formulation of nutrition intervention packages for use by local programme managers and international agencies. Additional resources are provided to this element.

20. The promotion of local nutritious foods and prevention of specific deficiency diseases is to respond to the COAG recommendation for increased consumption of local foods and to consolidate work undertaken under the Ten-Year UN Vitamin A Programme. Provision is also made for participation in the WHO/UNICEF supported programmes to prevent nutritional anaemia and iodine deficiency diseases. Activities include collection and dissemination of information on the nutritional role of traditional food crops, as well as assistance in programme and project formulation in Africa, Asia, Latin America and the Near East. A workshop for planners and project managers will be held on the use of local food in determining food baskets. Applied research and case studies on family gardening and urban agriculture and processing and preservation of local foods at home level, will be supported. The use of mass media will be emphasized in reaching target beneficiaries, in addition to written and visual information materials and guidelines for extension staff. "Rice and Rice Diet", a successful FAO publication, will be updated and preparatory work will be made for a similar monograph on "Millet and Sorghum".
21. Nutrition support to food aid and emergency programmes covers primarily the appraisal of food aid programmes and advice to WFP and other agencies on the nutrition policy aspects of food aid, on project planning and evaluation, and on the selection of food commodities. Technical assistance on food resources management and training and orientation of food aid staff will aim at improved targeting through selection of beneficiaries and effective uses of food aid. The additional resources are to increase assistance to governments in strengthening emergency and nutrition units in response to calamities and for refugee operations. This will cover advice and training on preparedness and post emergency rehabilitation. A manual on nutrition in emergencies will be prepared, covering the collection and use of pre-famine/emergency indicators, as well as nutrition intervention in the transition from emergency to rehabilitation. This element will continue to involve close collaboration with the World Food Programme (WFP) and OSRO.
22. The element on consumer orientation, nutrition education and training combines two former elements on training and nutrition education. This will allow better coverage of new priorities and common concerns for the public. Activities will be undertaken to formulate mass media messages conducive to better nutrition and to disseminate such messages through public awareness programmes and campaigns. Nutrition education will be directed to healthier food selection and preparation and child feeding practices. Guidelines on communication strategies, media selection and creative options for message delivery will be prepared. Account will be taken of the distinct information requirements and motivations of consumers in affluent societies or in poor regions, and between rural and urban areas. This element also deals with in-service training of nutritionists towards improved nutrition interventions and formal training particularly at agricultural faculties and colleges. The focus in the latter will be on curriculum review, development of new teaching options and related materials, including population and environmental concerns.
23. The Food and Nutrition periodical was suspended for financial reasons in the 1988-89 biennium and will be re-instated as a non-priced publication. The resources provided for this element cover selection of articles, and editing and preparation of camera-ready copies. The

distribution lists of nutrition specialists of the United Nations and individuals and institutions associated with FAO nutrition activities will be updated. It is intended to concentrate on technical and policy aspects of international nutrition activities and applied nutrition research.

24. The last element covers FAO's contribution to the ACC Sub-committee on Nutrition, for its regular activities and meetings.

- Sub-programme 2.1.6.3: Food Control and Consumer Protection

Programme Element Title		1988-89 Approved Budget	Programme 1990-91 Change * Budget	Percent of Sub- Programme
01	Strengthening National Food Control and Consumer Protection Systems	443	47	490 29
02	Training in Food Control, Management, Inspection and Analysis	266	122	388 23
03	Joint FAO/WHO Expert Committee on Food Additives and Contaminants	177	(10)	167 10
04	Food Contamination Surveillance and Control, including Joint FAO/WHO Monitoring Activities	485	9	494 29
05	Improving Food Protection at Rural and Urban Levels	145	0	145 9
Total		1 516	168	1 684 100
Cost Increases 1990-91				269
1990-91 Budget				1 953

* Increase (Decrease)

25. The strengthening of national food control and consumer protection systems encompasses work at both technical and policy levels. Activities include: preparation of materials on overall food control and consumer protection systems to be used in reviewing country infrastructure needs; advice to governments on national policies related to food standardization as well as to regional and sub-regional organizations and food industries on the application of food standards, in particular Codex standards and Codes of Practices; holding national food quality control strategy workshops; advice to countries and regional bodies on food quality, safety, food protection and food science; and development of cooperative quality control activities in food processing. Priority will continue to be given to the identification of local and national requirements for food standards and other regulations, training and laboratory facilities and to related national

programmes. International trade in raw, semi-processed and processed foods will be facilitated by assisting member countries in establishing food import/export quality control programmes. A technical consultation on food import/export problems will be organized.

26. Training in food control, management, inspection and analysis will be strengthened, in particular through training at international and regional levels in analysis and control of foods against contamination. Special attention will be given to the food importing countries of the Middle East. Training activities will be organized and manuals prepared for managers, inspectors, laboratory chemists, microbiologists and technicians, industry quality control personnel and technical administrators. Regional and national training courses will be based, as far as possible, on TCDC approaches, and additional extra-budgetary funding will be sought.
27. The Joint FAO/WHO Expert Committee on Food Additives and Contaminants provides expert advice to countries, food industry and to the Codex Alimentarius Commission on the safety and suitability of food additives and veterinary drugs used in production and processing of different food products, and on industrial chemicals, heavy metals, pesticide residues and other toxic substances such as mycotoxins. Two meetings of the Joint Expert Committee will be held in the biennium to enable provision of continued and up-to-date advice on additives and contaminants.
28. Contamination of foods with various industrial chemicals, mycotoxins, radionuclides, pathogenic and spoilage micro-organisms, heavy metals and excessive levels of agricultural chemicals, causes severe domestic and international trade problems, as well as food safety and nutritional problems. FAO, in a joint activity with WHO and with partial funding from UNEP, is participating in an International Food Contaminants Monitoring Programme which utilizes FAO/WHO cooperating centres in developing and developed countries worldwide to monitor various types of food contamination and to carry out TCDC training activities. Additional extra-budgetary funding will be used to strengthen national food contamination control systems. Activities related to monitoring mycotoxin contamination in foods will continue, including the publication of a training package on mycotoxin analysis for use by the African countries in particular.
29. Work on food protection at urban level will be continued and address food supply, quality and safety problems in the face of rapid urbanization. Particular emphasis will be given to assisting member countries in controlling food quality and safety problems related to street foods. Activities are based on the recommendations of the FAO Expert Consultation on Street Foods and will be developed at national and regional level with emphasis in Africa.

- Sub-programme 2.1.6.4: Nutrition Policy at Country Level

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Development of National Food and Nutrition Policies	685	539	1 224	60
02	Nutrition in Development Projects	427	(27)	400	20
03	Changes in Food Consumption in Relation to Urban and Rural Development	528	(110)	418	20
Total		1 640	402	2 042	100
Cost Increases 1990-91				265	
1990-91 Budget				2 307	

* Increase (Decrease)

30. A substantial net increase has been allocated to the development of national food and nutrition policies to respond to increasing requests for assistance. This will include activities within the context of FAO's expanded food security mandate and in collaboration with other UN agencies, with particular emphasis on African countries undertaking economic adjustment measures. Building up of national institutions and expertise is carried out through formal training, in-service training, seminars and workshops. The establishment of sub-regional centres on nutrition policy analysis and formulation is planned in Africa, to provide technical advice on the use of food consumption/nutrition data for planning and decision-making, and to promote TCDC activities. The training materials and manuals prepared in the last biennia will be adapted to various regional situations.
31. The element on nutrition in development projects, will continue to place emphasis on the integration of nutrition considerations in investment projects and sectoral development plans. The formulation of guidelines and training programmes for the introduction of nutrition objectives in development projects is a main component, building on the methodologies developed, and the training materials prepared and tested during 1988-89.
32. The reduction in the allocation of the element on changes in food consumption in relation to urban and rural development, is due to the completion of studies in connection with UNFPA-supported inter-regional projects. The major findings and recommendations made in several seminars will be assembled in a publication on urban food consumption patterns and food supply. Planned follow-up activities include the design and testing of simple survey methodologies of consumer behaviour regarding selected foods such as cereals, roots and tubers, and animal products. This will be used to promote more effectively the

consumption of local and traditional food products. Technical assistance will also be provided to member countries, particularly in the context of economic adjustment measures, in investigating and monitoring food consumption changes in urban and rural areas and in highlighting their implications for agricultural planning.

- Sub-programme 2.1.6.5: Joint FAO/WHO Food Standards Programme (Codex Alimentarius)

Programme Element Title		1988-89 Approved Budget	Programme 1990-91 Change *	1990-91 Budget	Percent of Sub- Programme
01	Policies and Procedures for Adoption and Acceptance of Codex Standards	506	0	506	16
02	Elaboration of Codex Standards for Specific Commodities	540	0	540	18
03	Elaboration of Codex Standards and Guidelines for General Application	963	(42)	921	30
04	Coordination of Standardization Activities at Global and Regional Levels	523	26	549	18
05	Publication and Application of Codex Standards and Recommendations	527	26	553	18
Total		3 059	10	3 069	100
Cost Increases 1990-91				608	
1990-91 Budget				3 677	

* Increase (Decrease)

33. The standards, codes of practice and other recommendations of the Codex Commission provide a basis for the harmonization of national requirements for the safety and quality of food moving in international trade. A slight increase in the total allocation is made. Shifts in resources are proposed for strengthening cooperation with GATT and other agencies and for the development of an improved information system on Codex recommendations and the notification of their acceptance by governments in a form compatible with WAICENT.

34. The programme element dealing with policies and procedures for adoption and acceptance of Codex standards provides for one meeting of the Codex Alimentarius Commission and for two meetings of its Executive Committee which is responsible for developing priorities and policy. The

Commission itself is responsible for the final adoption of draft Codex texts and recommending them to governments for adoption. The Codex Committee on General Principles, which does not meet on a regular basis, will not meet in the 1990-91 biennium, thus allowing a small shift of resources within the element towards providing advice to Member Governments on national policies related to food standardization.

35. No change in resources is proposed for the programme element dealing with the elaboration of Codex standards for specific commodities. The finalization of work on standards for vegetable protein products will allow the holding of a meeting of the Joint FAO/WHO Committee of Government Experts on the Code of Principles concerning Milk and Milk Products. The meeting costs of this Committee, and of the Joint ECE/Codex Group of Experts on the Standardization of Fruit Juices, are borne directly by the Joint FAO/WHO Food Standards Programme. Other meeting costs are borne mostly by host governments. For 1990-91, the following meetings are planned: Tropical Fresh Fruit and Vegetables (Mexico); Fish and Fishery Products (Norway); Nutrition and Foods for Special Dietary Uses (Federal Republic of Germany); Processed Meat and Poultry Products (Denmark); and Cereals, Pulses and Legumes (USA). Work on commercial standardization of tropical fresh fruits and vegetables will be carried out in close cooperation with the UN Economic Commission for Europe, which has had long-standing involvement in this area.
36. The elaboration of Codex standards and guidelines for general application, e.g. in the areas of food labelling, food hygiene, food additives and contaminants, pesticide residues and residues of certain veterinary drugs in foods, is the main technical area. The element includes resources for providing technical and scientific advice to governments on these general subjects. Meetings planned are: Committee on Food Additives (2 meetings, the Netherlands); Committee on Food Hygiene (USA); Committee on Pesticide Residues (2 meetings, the Netherlands); Committee on Residues of Veterinary Drugs in Foods (USA); Committee on Methods of Analysis and Sampling (Hungary); and Committee on Food Labelling (Canada). Only one meeting of the Committee on Food Hygiene is foreseen for the biennium, allowing for a small reduction in resources.
37. The element devoted to the coordination of standardization activities at global and regional levels provides for establishing and maintaining cooperation with other international agencies and non-governmental organizations in the area of food standardization, and for the meetings of the four Codex Regional Coordinating Committees which have responsibility for developing and harmonizing standardization programmes and policies on a regional basis (Africa, Asia, Europe, Latin America and the Caribbean). In the 1990-91 biennium, the Regional Coordinating Committee for Europe is expected to exercise a valuable and unique role in bringing together the three main trading blocs, as well as other countries of the region, and will serve as a European-wide forum for the harmonization of food quality and safety standards on the basis of worldwide Codex recommendations. The increase in resources is directed towards strengthening cooperation with GATT and other agencies.
38. A small increase is proposed for the programme element which provides for the publication and application of final Codex standards and recommendations and notification of acceptances. This reflects the development of an improved information system on Codex recommendations and for the re-issuance of the Codex Alimentarius in a form compatible for its inclusion in WAICENT.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit	
Global	6 599	RP	17 826	AGO	3 690
Africa	5 435	Codex (WHO)	635	ESC	79
Asia and Pacific	5 983	Govt. Programmes	1 417	ESN	18 037
Near East	2 243	UNDP	3 043	FIO	156
Europe	307	WFP	617	Regional Offices	1 576
Latin America	2 971				
TOTAL	23 538		23 538		23 538

Programme 2.1.7 - Food and Agricultural Information and Analysis

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
2.1.7.1 Statistical Processing and Analysis	9 503	180	1 958	11 641	124.0	2 242
2.1.7.2 Situation and Outlook	4 454	128	1 000	5 582	60.0	164
2.1.7.3 Food Information and Early Warning System	4 361	25	728	5 114	37.2	5 577
2.1.7.4 Statistical Development	3 382	(292)	459	3 549	21.1	8 659
2.1.7.7 Regional Offices	1 659	332	294	2 285	21.3	0
2.1.7.8 Field Programme Support	532	313	174	1 019	12.9	896
2.1.7.9 Programme Management	1 920	(125)	401	2 196	29.0	0
Programme 2.1.7 Total	25 811	561	5 014	31 386	305.5	17 538

* Increase (Decrease)

Medium-term Objectives

1. The formulation of sound, flexible and responsive development policies and programmes requires timely, reliable and comprehensive food and agricultural information. The continued risks of food emergencies in many low-income countries, especially in Africa, point to improved monitoring of early warning indicators of likely food shortages. Many member countries, particularly low-income countries, that depend heavily on agricultural commodities for foreign exchange earnings, require up-to-date market and commodity trade information and analysis. Analyses of regional and global financial and economic conditions that impact on agriculture, of changes in economic and agricultural policies, and in the food and agricultural situation and outlook, will continue to be important for national policy-making in all countries. Beyond the aspect of food security, and in a context of continuing economic constraints and adjustment in many developing countries, there is increased concern for the welfare of the rural poor and other specific disadvantaged groups. Increased importance is also being attached, in both developed and developing countries, to environmental issues and sustainable development, adding yet another dimension to the wide range of information on which to base national policies and international actions.

2. The basic objective of Programme 2.1.7 remains the provision of the statistical and other information and analysis required for the formulation of appropriate and sustainable food and agricultural policies at the global, regional and national levels.
3. The compilation, processing, analysis and dissemination of basic food and agricultural statistics will continue to be among FAO's most important core tasks. A major new thrust, which will extend beyond the 1990-91 biennium, is the harmonization of the wealth of data and other information bases accumulated by FAO, including data components of other programmes, into a World Agricultural Information Centre (WAICENT). This initiative will involve advanced database management systems and improved analytical and communications systems. The ultimate objective is to enhance the usefulness to the international community of the wide range of FAO information services. This is truly an in-house undertaking since all FAO technical units are concerned to a greater or lesser extent. Overall supervision and coordination rests with an interdepartmental working group, with secretariat services provided by the ESS Division, and covered by this programme.
4. Assistance will continue to be provided for the development of integrated, long-term food and agricultural statistics programmes. Some more specific objectives in this field include: the promotion of countries' participation in the 1990 World Census of Agriculture; assistance in improving national statistical capabilities through training courses and publications; the development and promotion of a system of socio-economic indicators for monitoring progress in agrarian reform and rural development; and the improvement of the quality and timeliness of food and agricultural statistics. Coordination with similar statistical activities in the UN system, including data management and communications, as well as methodological aspects of data analysis, will continue to be ensured through the ACC Sub-committee on Statistical Activities.
5. The Global Information and Early Warning System (GIEWS) retains high priority. Increased attention will be given to strengthening arrangements for the collection of information from the field, the use of modern technologies for its analysis as well as for the dissemination of its outputs. The main objective will continue to be the provision of timely warning of impending food emergencies to governments and international aid agencies. Extended commodity coverage of the System to foods other than cereals, where they form an important part of the diet, will be pursued. Further advances are planned in the analysis of crop conditions, through agrometeorological and remote sensing techniques. Monitoring of crop conditions in Asia during the monsoon period will be intensified. The collection of information on socio-economic indicators will be enhanced. For this purpose, field level cooperation with non-governmental organizations will be developed further. Emphasis will continue to be placed on the establishment and strengthening of national and regional early warning systems. In view of the tight food supply situation at the global level, which is likely to continue for some time ahead, it will remain important to keep governments informed of the latest position and prospects for global production, stocks and prices.
6. In the analysis of the commodity and trade situation and outlook, emphasis will be placed on the study of selected commodities that have export growth potential and provide scope for export diversification.

Trade problems of processed and semi-processed products, including trade regulations and restrictions, and the improvement of developing countries' capacity to collect and analyze commodity trade information, will also receive attention.

7. In respect of FAO's work related to the food and agricultural situation and outlook, there are two important medium-term actions: on the one hand, the increased use of modern technologies to streamline the preparation and modernize the presentation of the regular reports - the State of Food and Agriculture and the Commodity Review and Outlook; and on the other hand, to draw upon and contribute to the comprehensive information stored in WAICENT.

Focus of the Programme

8. This programme is at the core of FAO's analytical work. It comprises the compilation, processing, analysis and dissemination of a wide range of agricultural statistics; reviews of the state of and changes in the world food and agricultural situation; analysis of the international commodity trade situation, prospects and issues; the Global Food Information and Early Warning System; and assistance to countries in strengthening their national statistical food information and early warning systems.
9. Responsibility for implementation rests with the Statistics Division (ESS) for Sub-programmes 2.1.7.1, 2.1.7.4 and 2.1.7.8. The Commodities and Trade Division (ESC) manages Sub-programme 2.1.7.3, contributes to 2.1.7.1 through the provision of commodity statistics, and shares in the provisions for 2.1.7.2 with the Policy Analysis Division (ESP). The activities under the programme of the Regional Offices and Joint Divisions are in Sub-programme 2.1.7.7.
10. Reporting on the state of food and agriculture to FAO's Governing Bodies, other agencies within the UN system and the general public, remains a basic function of the Organization. The regular assessments of the state of food and agriculture, at national, regional and global levels, and within the overall context of economic changes and adjustment, are based on a wide range of national indicators of performance and analyses, within and external to FAO. In view of the continuing difficult economic situation for many indebted developing countries, priority attention is given to assessing the impact of policy changes at the macro-economic level on agricultural performance and rural welfare, and the near-term prospects for food and agriculture. The State of Food and Agriculture (SOFA) will continue to focus on major contemporary issues relating to the food and agriculture sector and rural development.
11. An important purpose of commodity situation and outlook activities and outputs is to enhance market transparency and to provide objective assessments of agricultural commodity and trade developments to a wide range of users as a basis for improved decision-making and, in particular, to developing countries whose national capacities in commodity analysis are the most limited. World supply, demand, trade and price developments in some 80 agricultural products are monitored and analyzed. Outputs from this work are used as the basis for FAO's commodity and trade policy activities, particularly under Sub-programme 2.1.8.3. Outputs also feed into the Organization's assessments of the world food security situation and outlook and form the basis for both the annual publication, the FAO Commodity Review and Outlook, and for special studies on topical commodity problems.

12. The Global Information and Early Warning System (GIEWS) continuously monitors crop conditions and the food supply situation at national and global levels and issues alerts to the international community whenever food supplies are threatened. By issuing timely and objective warnings to vulnerable countries and the donor community alike, the System helps to forestall and counteract impending food shortages and emergency situations. In order to meet the continually growing demands upon the System from governments and international agencies, and improve the flow of basic data, modern technologies are required for analysis and dissemination. The application of satellite imagery to crop monitoring is being extended beyond Africa, to include the assessment of crop conditions in southwest Asia and Latin America. Monitoring of market prices and other socio-economic indicators is essential in order to provide a more reliable basis for the System's identification of vulnerable groups, particularly in drought-prone countries.

Plan of Action

- Sub-programme 2.1.7.1: Statistical Processing and Analysis

Programme Element Title		1988-89 Approved Budget	Programme 1990-91 Change *	1990-91 Budget	Percent of Sub- Programme
01	Production Statistics	811	(180)	631	7
02	Trade Statistics	607	93	700	7
03	Country Data Processing and Food Balance Sheets	2 305	84	2 389	25
04	ICS and Other Working Systems	1 105	(61)	1 044	11
05	User Services (AGROSTAT)	816	(120)	696	7
06	Development of the World Agricultural Information Centre (WAICENT)	0	596	596	6
07	Economic Statistics	818	(93)	725	7
08	Agricultural Land and Requisites	844	(112)	732	8
09	Prices and Index Numbers	950	(268)	682	7
10	Consumption and Demographic Statistics	1 247	(484)	763	8
11	Sixth World Food Survey	0	725	725	7
Total		9 503	180	9 683	100
Cost Increases 1990-91 1990-91 Budget				1 958 11 641	

* Increase (Decrease)

13. The activities of the programme element on production statistics include the critical review and analysis of long-term series of world-wide statistics for crops, livestock and livestock products, and the construction of index numbers of food and agricultural production. Related statistical information is disseminated in internationally-comparable form through the FAO Production Yearbook. The improvement of data in respect of coverage, quality, reliability and timeliness will be sought by systematically checking basic statistics and subjecting them to intensified dialogues with the national statistical agencies concerned, through FAORs, field experts and duty travel of headquarters staff. Emphasis will be given to the preparation of livestock/animal feed statistics by using recently developed methods.
14. Work on trade statistics includes estimating trade for late and non-reporting countries, the construction of index numbers (volume, value, unit value) of exports and imports and the preparation of text and tables for FAO's Trade Yearbook. Long-term series of trade in selected food and agricultural commodities will be prepared and published. Work on the development of a computerized system of trade matrices, i.e. data on exports by destination and imports by origin, for agricultural products for current and recent years will be resumed, hence the increase in resources. Resulting information will facilitate the analysis of trade flows of commodities among countries and provide information on market shares.
15. The element on country data processing and food balance sheets is the largest in the sub-programme. It provides for maintenance, processing and continuous updating of long-term series of worldwide annual statistics on production, trade, domestic utilization of crops, livestock and livestock products in the form of supply/utilization accounts, quarterly trade statistics and monthly livestock production statistics. The preparation and maintenance of a series of food balance sheets for about 160 countries, showing supply and utilization of food commodities and related per caput availability in terms of quantity, energy, protein and fat, enables the assessment of the world food supply situation as well as long-term changes in the dietary pattern of individual countries and country groups. Related statistical information will be published in FAO's Quarterly Bulletin of Statistics, World Agricultural Statistics - FAO Statistical Pocketbook - as well as in the form of 1984-86 Average Food Balance Sheets and Long-term Series on Per Caput Food Supplies.
16. The interlinked computer storage and processing system for food and agricultural commodity data (ICS) and other working systems cover activities of data entry, editing, validation and report generation on population, land use, agricultural prices, input and output statistics, as well as agricultural censuses and survey data and socio-economic indicators.
17. User services will concentrate on the dissemination of statistical information through electronic means, the demand for which is increasing rapidly. The activities of this programme element will be absorbed gradually by the new World Agricultural Information Centre (WAICENT). The reductions shown for this and the previous programme element reflect initial steps in this direction.
18. The new programme element development of the World Agricultural Information Centre (WAICENT) will, in close cooperation with AFC,

concentrate on improving data management techniques and procedures and consolidating about 40 FAO data banks. This requires that related expertise in the Statistics Division be brought together to ensure coordination and monitoring of the development activities. The initial allocation of US\$ 596 000 for the development of the WAICENT comes partly from an additional provision of US\$ 159 000 and partly from shifts of resources from other programme elements, notably through redeployment of staff time and from non-recurring technical manuals.

19. Work on economic statistics will focus on assisting developing countries to develop their economic accounts for agriculture. A handbook on the subject will be distributed to countries for developing and/or improving their statistical systems in this respect. Data on production and capital formation accounts will be regularly updated and disseminated. The reduction also results from the completion of non-recurring manuals.
20. The programme element on agricultural land and requisites comprises the development and promotion, at national and international levels, of methodology on collecting, processing, analyzing and disseminating statistics on agricultural land, fertilizers, pesticides and agricultural machinery. In cooperation with other UN organizations, a new activity will be initiated on monitoring the environmental impact of agricultural development. Other activities will seek the expansion of coverage and dissemination of statistics on agricultural inputs. Regular FAO/FIAC meetings of the Working Party on Fertilizer Statistics and its sub-committee will be held. Manuals on fertilizers and pesticide statistics, on land use and on agricultural machinery statistics, will be prepared.
21. Strengthening of price data collection at country level, as well as expansion of data compilation and analysis at the international level, will be the main focus of the element on prices and index numbers. This element will continue to disseminate statistics on prices received and on those paid by farmers as well as on support prices.
22. The programme element on consumption and demographic statistics includes work on the acquisition and analysis of household survey data pertaining to food consumption and related variables; the preparation of global estimates and projections of agricultural population and labour force; and the derivation of socio-economic indicators pertaining to agriculture and rural development.
23. In cooperation with ESN, preparatory work for the Sixth World Food Survey will be done. Collection of relevant data from developing countries will be ensured, especially for assessing the undernourished population. These preparatory activities will be mostly financed by shifts from the previous element on consumption and demographic statistics, and from slowing down and/or postponing research work on production surveys, surveys of marketing costs and margins under the programme element prices and index numbers.

- Sub-programme 2.1.7.2: Situation and Outlook

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	State of Food and Agriculture - Global and Special Topics	1 063	305	1 368	30
02	Food and Agriculture - National and Regional Levels	1 263	(201)	1 062	23
03	FAO Commodity Review and Outlook	762	39	801	17
04	Monitoring World Commodity and Trade Developments and Export Earnings	1 366	(15)	1 351	29
Total		4 454	128	4 582	100
Cost Increases 1990-91				1 000	
1990-91 Budget				5 582	

* Increase (Decrease)

24. Annual reports on the state of food and agriculture will continue to be prepared for the FAO Council and Conference, the World Food Council and the public, following the revised schedule and format introduced in 1989, whereby the former World Food Report was merged with the State of Food and Agriculture (SOFA). SOFA will continue to contain a chapter on a topic or topics of special interest - the topic foreseen for 1990 is agriculture and structural adjustment. Specific reports on the state of food and agriculture, for particular groups of countries or regions, will continue to be provided on request. The annual publication of Country Tables will be continued. The increase of US\$ 305 000 under the related programme element reflects a shift of resources from Sub-programme 2.1.7.9: Programme Management, and the assignment to the SOFA Group of the responsibility for the assessment of the situation and outlook at the regional level. It also includes provision for data processing and handling resulting from the establishment of WAICENT.
25. It will be important to monitor food and agricultural developments within a macro-economic framework at the regional and world levels. A major aspect is the impact of changes in macro-economic, food and agricultural policies, including those associated with structural adjustment measures, on the performance of the sector and the welfare of those depending on it for income or goods. The ESP Division will continue to provide technical support to the Joint Agricultural Divisions with the UN Regional Economic Commissions, and to the FAO Regional Offices in relation to their work on economic analysis, planning assistance and related training. It will also maintain current information on changes in national plans, policies and programmes, to facilitate briefings for planning assistance, preparation of situation and outlook

statements, and assessments of the economic aspects of the agricultural development process in developing countries.

26. The annual FAO Commodity Review and Outlook will continue to provide objective assessments of agricultural commodity and trade developments primarily for the benefit of countries which do not possess national commodity intelligence services.
27. A main thrust of the programme element on monitoring of world commodity and trade developments and export earnings and preparation of related special commodity studies will be the integration of existing computerized commodity systems into the data bank of the FAO World Agricultural Information Centre (WAICENT). Another priority is the coverage of non-traditional agricultural products, which are becoming an increasingly important element in international trade and could provide additional export earning to many developing countries, including tomatoes, other horticultural crops and ramie, in addition to studies on economic aspects of jute and hides and skins. Moreover, work on market developments for relatively neglected products, including roots and tubers, pulses and livestock feeds, would be restored to the level originally envisaged for 1988-89. A further issue of the biennial World Apparel Fibre Consumption Survey is planned. Finally, the provision of short-term price and market information by means of topical notes and/or bulletins, circulated at more regular intervals, will be extended to commodities facing serious market problems.

- Sub-programme 2.1.7.3: Food Information and Early Warning System

Programme Element Title	1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01 Monitoring World Food Outlook	2 002	137	2 139	49
02 Early Warning of Food Shortages	2 359	(112)	2 247	51
Total	4 361	25	4 386	100
Cost Increases 1990-91			728	
1990-91 Budget			5 114	

* Increase (Decrease)

28. Monitoring of the World Food Outlook under the Global Information and Early Warning System (GIEWS) will be intensified, following the recent deterioration of the global food supply situation. This will entail greater emphasis on the assessment of the supply and demand situation and outlook for basic foods and key agricultural inputs, as well as the identification of areas and regions facing potential food supply difficulties and the estimation of cereal import and food aid requirements. Provision has been made to continue regular publications, namely Food Outlook and its annual Statistical Supplement. The increase of US\$ 137 000 covers staff inputs for global food supply monitoring, completion of the computerization of the System's information base and its electronic dissemination to governments and other users. In this connection, provision has been made for the incorporation of GIEWS computer applications in WAICENT. The System's commodity coverage will be expanded to additional food commodities, to the extent that the necessary data are readily available. An expert consultation on the GIEWS will be held to bring together users and suppliers of GIEWS information to exchange ideas on further improvements. The existing cooperative arrangements with other units of FAO, as well as with international and governmental organizations concerned with the global food outlook, will continue.
29. Under the programme element for early warning of food shortages, emphasis will continue to be placed on monitoring the food supply position in individual developing countries and alerting governments and international aid agencies to impending difficulties. Provision has been made to continue the two regular publications "Foodcrops and Shortages" and "Food Supply Situation and Crop Prospects in Sub-Saharan Africa". Steps will be taken to adequately address exceptional local and exportable surpluses in cereals, as well as the external assistance for their disposal. The use of modern technologies for the analysis of crop conditions will be expanded. Increased emphasis will be placed on closer surveillance of the performance of the southwest monsoon in Asia. Cooperative links with non-governmental organizations will be extended, especially for improved monitoring of socio-economic indicators, the identification of populations at risk and the assessment of their relief needs. Crop assessment missions will continue to be mounted to vulnerable and drought-prone countries; however, increased use of GIEWS headquarters staff for these missions will allow economies, as reflected in the budgetary reduction. Further economies result from the reduction to two workshops to be organized in 1990-91, against three in 1988-89. These workshops will enable the managers of national and regional early warning systems to share experiences and identify common problems and possible solutions.

- Sub-programme 2.1.7.4: Statistical Development

Programme Element Title	1988-89 Approved Budget	Programme 1990-91 Change * Budget	Percent of Sub- Programme
01 National Statistical Systems	1 399	(239)	1 160 38
02 Social Statistics and Socio-Economic Indicators	532	157	689 22
03 Data Acquisitions	1 004	(159)	845 27
04 Statistical Statutory Bodies	447	(51)	396 13
Total	3 382	(292)	3 090 100
Cost Increases 1990-91 1990-91 Budget			459 3 549

* Increase (Decrease)

30. The programme element on national statistical systems includes the development of long-term integrated national statistical programmes, the preparation of methodological manuals, the promotion of the 1990 World Census of Agriculture and the conduct of training courses. During the 1990-91 biennium, assistance will be provided to selected countries to develop long-term integrated statistical programmes. A technical manual on livestock statistics will be prepared, in addition to the publications on the agricultural census. Many countries are expected to participate in the programme for the 1990 World Census of Agriculture. Country visits by staff will aim at preparing national statisticians to plan and execute the agricultural census. Two training courses on agricultural censuses will be conducted.
31. Following the publication in 1989 of the Guidelines on Socio-Economic Indicators, the work on social statistics and indicators will concentrate on assisting countries in developing national socio-economic indicators programmes, for monitoring of progress in, and evaluation of agrarian reform and rural development. Basic statistics for compiling these indicators will require the development of long-term programmes of statistical development, to be closely integrated with other UN statistical programmes such as the National Household Survey Capability Programme (NHSCP). A series of manuals will also be prepared building on the work initiated in the 1988-89 biennium, addressing calculation of indicators, establishment of socio-economic group classifications and statistics on special population groups, including women in agriculture, for use by countries and in various workshops and training centres, to be organized during the 1990-91 biennium. The increased budgetary resources are to support these activities.

32. Data acquisition from countries will continue to be a major component of the overall effort of collection and dissemination of food and agricultural statistics, dealt with under Sub-programme 2.1.7.1. The decrease of US\$ 159 000 in the financial resources under this item will be partly compensated by expected increased computerization. The anticipated participation of several countries in the 1990 World Census of Agriculture will entail increased activities for the collection, publication and analysis of the results of these censuses during the 1990-91 biennium and beyond.
33. Under the element on statistical statutory bodies, provision is made for various services such as organization of meetings, preparation of documents and reports and follow-up of recommendations. Through the meetings, technical guidance is received from senior national statisticians and high level technicians on priorities in work, on statistical standardization and methodology including the application of new statistical techniques. A minor saving will be possible due to further reduction of costs of interpretation and translation. Meetings of the Asia and Pacific Commission on Agricultural Statistics, the FAO/ECE/CES Study Group on Food and Agricultural Statistics for Europe and the Statistics Advisory Committee of Experts will be organized in 1990, while those of the African Commission on Agricultural Statistics and the FAO/IASI Working Group on Agricultural Statistics will be held in 1991. Follow-up activities to the previous meetings include country level studies to address the problems of organization and operations of agricultural censuses in Indonesia, Philippines, Republic of Korea, Bangladesh or Sri Lanka, and the organization in some African countries of national workshops on users/producers of agricultural statistics, following similar workshops organized in Togo and Sierra Leone in the 1988-89 biennium.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit	
Global	20 837	RP	31 386	AGO	14 845
Africa	14 477	Govt. Programmes	5 741	ESC	8 198
Asia and Pacific	8 208	OSRO	164	ESP	3 299
Near East	1 733	UNDP	11 633	ESS	20 133
Europe	767			IAA	164
Latin America	2 902			Regional Offices	2 285
TOTAL	48 924		48 924		48 924

Programme 2.1.8 - Food and Agricultural Policy

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
2.1.8.1 Global Perspective Studies	1 241	102	202	1 545	11.4	603
2.1.8.2 Agricultural Policy Analysis	2 617	(297)	414	2 734	23.6	2 917
2.1.8.3 Commodity Policies and Trade	7 746	5	1 433	9 184	80.4	0
2.1.8.4 World Food Security	4 315	(73)	665	4 907	40.3	11 142
2.1.8.5 Agricultural Planning Assistance	4 851	229	766	5 846	46.0	23 159
2.1.8.7 Regional Offices	5 626	(372)	777	6 031	60.0	0
2.1.8.8 Field Programme Support	1 105	62	278	1 445	19.1	3 030
2.1.8.9 Programme Management	1 880	20	428	2 328	33.0	0
Programme 2.1.8 Total	29 381	(324)	4 963	34 020	313.8	40 851

* Increase (Decrease)

Medium-term Objectives

1. Structural imbalances and the search for sustainable development will continue to pose difficult challenges to food and agricultural policy at both national and international levels. The main factors which are leading to an extremely difficult climate for agricultural and rural development are: the widespread fiscal and current account imbalances and associated serious constraints on investment; the huge foreign debts and net capital outflows from many debtor countries; the slow response of national economies to structural adjustment programmes; and the consequent adverse effects on nutritional status, social welfare and trade flows, as well as the persistence of poverty, environmental degradation and protectionism. Over the medium term, Member Governments will need to monitor and revise, as necessary, their development policies and strategies to improve food security and stimulate equitable growth within the agricultural sector and between rural and urban areas. They will also need to translate these policies and strategies into concrete plans, programmes and projects which could be conducive to private and public investment from internal and external sources. New approaches are still required in many countries to reduce food insecurity, particularly by attacking rural poverty, improving access to and reducing the instability of food supplies, and enhancing self-reliance in circumstances of stringent restraint in public expenditure.

2. The general objective of this programme is to assist member countries in improving their food, agriculture and rural development policy and planning processes, both through training and other direct assistance, and indirectly through the preparation of regional and global policy studies.
3. In helping Member Governments to improve their capacity to monitor and formulate agricultural policies and strategies, and to translate them into plans, programmes and projects, greater stress will be laid on the analysis of the effects of economic adjustment programmes on sector performance, on rural areas and rural workers, producers and consumers of agricultural products and on national and trade accounts. FAO's ability to assist in sector and policy reviews and its policy advisory role would need to be enhanced. The policy analysis training programme and assistance in decentralized planning will be further developed. Policy studies will give priority attention to the role of government and private entities in agricultural development, the integration of environmental considerations into agricultural planning, as well as the financing of agricultural development and the most promising methods for promoting economic cooperation among developing countries (ECDC).
4. To strengthen food security, continued emphasis will be devoted to promoting the implementation of national, regional and international policies and systems, in line with the broadened concept of food security. Proposals for consideration by the Committee on World Food Security (CFS) will give particular attention to measures to ensure access to food, including recommendations for the design of structural adjustment programmes to avoid adverse impact on food security; and more intensive analysis of national food security policies, particularly through consideration of lessons to be learned from the experiences of selected countries. In addition to traditional activities, the Food Security Assistance Scheme (FSAS) will assist countries, which so request, to formulate comprehensive national food security programmes. Activities will concentrate on areas where the Scheme possesses comparative strengths, and will be carried out in collaboration with other agencies and interested donors.
5. The mainstay of this programme with regard to commodity policies and trade, will remain policy analysis work and consultations, particularly through the network of intergovernmental commodity groups and their parent body the Committee on Commodity Problems (CCP). The main objective is the identification and promotion of remedial action on commodity problems which requires cooperation among producers and consumers. Collaboration with other international organizations, notably GATT, UNCTAD, ITC, UNIDO and specialized commodity bodies, will be maintained to ensure complementarity of action. Analytical studies and information will continue to be made available for use by governments in trade negotiations. There will be increased emphasis on the analysis of changes in national policies for basic foods and on assistance to developing countries in the formulation of commodity policies, especially regarding traditional foods, identification of opportunities for diversification, and on the promotion of trade between developing countries.
6. Work on global perspective studies will continue to stress assistance to Member Governments and to the United Nations and other organizations in making use of the results from, and the analytical procedures developed for Agriculture: Toward 2000, in the preparation of national

policies and in the identification of priorities for donor assistance. The system will be kept operational and updated towards a new edition of Agriculture: Toward 2000 with an extended time horizon to be submitted to the 1993 Conference, and in preparation of related studies for regions and other groups of countries, and of leading issues in food and agricultural development. The results will also be used for FAO's contribution to a new International Development Strategy for the Fourth UN Development Decade (the nineties), and for programme priority identification throughout the Organization. The performance of the agricultural sector will continue to be monitored on the basis of the Guidelines on International Agricultural Adjustment.

Focus of the Programme

7. This programme contributes to essential priority aims of FAO in the area of food and agriculture policy, at sub-national, national, regional and global levels. The main aspects addressed include the improvement of world food security, the development of international commodity and trade policies, support to ECDC, agricultural policy advice as well as related planning assistance and training.
8. Responsibility for implementation rests with the Commodities and Trade Division (ESC) for Sub-programmes 2.1.8.3 and 2.1.8.4. The Policy Analysis Division (ESP) manages Sub-programmes 2.1.8.5 and 2.1.8.8, and shares responsibility for Sub-programme 2.1.8.2 with the office of the Assistant Director-General of the Economic and Social Policy Department (ESD). Sub-programme 2.1.8.1 is shared between ESD and the office of the Assistant Director-General, Agriculture Department (AGD). Sub-programme 2.1.8.7 covers the activities of the Regional Offices and Joint Divisions under the programme. The provisions for 2.1.8.9 are shared between ESC and ESP.
9. Work on global perspective studies focuses on the preparation of forward assessments of the world food and agricultural situation, of pressures on the environment, and on other issues of global, regional and national concern. Such studies also provide quantitative analyses for countries or country groups, requiring homogeneous databases and projections.
10. In agricultural policy analysis, the programme concentrates on sustainable agricultural development, the role of government in agricultural and rural development, resource flows from agriculture and economic cooperation among developing countries (ECDC). The structural adjustment studies completed during the 1986-87 and 1988-89 biennia will be used for the policy analysis training programme and for FAO's advisory services on the reformulation of macro-economic and sector adjustment policies and programmes in member countries requesting such advice. The flow of external resources for rural development in developing countries is constantly monitored and reported. Analyses of internal resource flows, in cooperation with the International Monetary Fund, will continue, with priority on agricultural taxation.
11. In the area of commodity policies and trade, the programme provides for: analytical work in support of intergovernmental consultations on major problems affecting agricultural commodities in world trade among producing and consuming countries; cooperation with other organizations, such as UNCTAD, GATT, ITC, UNIDO and specialized commodity

councils, in the identification, analysis and resolution of agricultural trade problems which call for FAO's technical expertise; and advice to interested countries in the review and design of their national commodity policies. Producer/consumer consultations are held within the framework of the intergovernmental commodity groups and under the aegis of the Committee on Commodity Problems. The network of intergovernmental groups, including the contribution from experts from the private sector attending the sessions, provides useful mechanisms for consultations on economic problems and on remedial action for agricultural products. Collaboration is maintained with other specialized organizations working on commodities and trade through joint studies and other activities; coordination of work plans and intergovernmental meetings on commodities, as in the case of a long-standing inter-secretariat arrangement with UNCTAD; and exchange of information. The experience gained through these activities is put at the disposal of interested member countries, to help them in designing and implementing their national commodity policies and in identifying related commodity investment possibilities with the main focus on market-oriented approaches. It is expected that active cooperation will be established with the Common Fund for Commodities when it becomes operational.

12. The programme serves as the Organization's focal point in the search for improvements in world food security. In particular, it supports analytical work carried out within the framework of the Committee on World Food Security (CFS). The main objectives are to promote inter-governmental understanding and agreement on effective measures to raise food and agriculture production and to enhance stability of and access to food supplies, particularly by poor people, according to internationally agreed strategies and objectives. Subsequently, inter-governmentally agreed strategies and national objectives are to be translated into effective action to improve food security at the local, national and regional levels. These aims are pursued through the Food Security Assistance Scheme (FSAS), specifically by means of food security policy advisory and programming missions and technical assistance, taking advantage of the range of FAO interdisciplinary expertise covering such areas as production, storage, marketing, and policy design. A particular focus of the Scheme, under its expanded mandate, is the provision of assistance to interested countries in the formulation of comprehensive national food security programmes, in line with the broadened concept of food security, and in cooperation with other concerned agencies and interested donors, including NGOs.
13. Under agricultural planning assistance, the programme provides training, technical assistance and advice to member countries on policy formulation, sector and sub-sector strategies and planning, decentralized planning and project identification, formulation, monitoring and evaluation. The near-term focus of the work is governed largely by the prevailing set of internal and external pressures influencing the agricultural and rural development process in developing countries. The immediate obstacles to development differ significantly from country to country, but the following concerns are valid for most countries: fiscal and current account imbalances; the magnitude of the debt service burden relative to flows of official and private external assistance; the incidence of poverty and hunger; the weak internal and external demand for agricultural products; commodity imbalances; the prevailing mis-use of natural resources and chemicals and its implication for environmental sustainability; and the level and fluctuations of international prices for agricultural products and protectionism in international markets.

14. Priority is given to requests for policy advice and to training and technical assistance in policy analysis, linked to the structural adjustment process, and to the policy review meetings with donors or for annual and multiyear rural and agricultural development planning. Training and technical assistance in sector, sub-sector and decentralized planning and analysis is provided to member countries, as well as training in project identification, formulation, analysis, monitoring and evaluation.

Plan of Action

- Sub-programme 2.1.8.1: Global Perspective Studies

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Agriculture: Toward 2000, International Development Strategy and Policy and Programme Formulation	594	463	1 057	79
02	Follow-up to the In-Depth Study on African Agricultural and Food Problems	647	(361)	286	21
Total		1 241	102	1 343	100
Cost Increases 1990-91				202	
1990-91 Budget				1 545	

* Increase (Decrease)

15. Under the first element, a new edition of Agriculture: Toward 2000 (AT 2000) is to be prepared for 1993. This requires that preparatory work, already initiated in 1989, be intensified in 1990-91. The main areas to be covered are: environmental aspects and sustainability of agricultural development; the potential impact of climate change on agriculture, forestry and fisheries; collection of data and determination of technical parameters to enable the introduction of China into the AT 2000 model; re-evaluation and enhancement of the technological parameters underlying the analysis of production by agro-ecological land class, country and crop; and improvement in the data and method of analysis concerning livestock feed, particularly regarding the demand for cereals and oilseeds. This element also covers requirements for FAO's participation in UN system-wide work and contributions to the preparation of the International Development Strategy for the 1990s.

16. Follow-up to the In-depth Study on African Agriculture and food problems will concentrate largely on issues relating to the achievement of sustainable production systems (notably feed and production input requirements).

- Sub-programme 2.1.8.2: Agricultural Policy Analysis

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Economic Cooperation Among Developing Countries	203	(87)	116	5
02	Policies and Performance of the Agriculture Sector	1 646	(193)	1 453	63
03	External Assistance for Agricultural Development	181	(74)	107	5
04	Domestic Resources for Agricultural Development	587	57	644	28
Total		2 617	(297)	2 320	100
Cost Increases 1990-91 1990-91 Budget				414 2 734	

* Increase (Decrease)

17. Under support to economic cooperation among developing countries (ECDC), provision is made for the Organization's ECDC focal point, namely the ESP Division, to collect information on recently accomplished and programmed ECDC activities, to prepare and publish the biennial report on FAO's support to ECDC, to contribute to or prepare comments on ECDC reports of other UN agencies, and to participate in international meetings on the topic. These activities can be accomplished with reduced resources, mainly due to the non-recurrent expert consultation held in the 1988-89 biennium with officials from selected integration groupings.
18. Activities related to policies and performance of the agricultural sector will include studies on the changing roles of government and private entities in agricultural and rural development and on sustainable agricultural development. Economic (structural) adjustment will continue to be a matter of interest and support will continue to be provided in this respect to all units in the Organization, especially those involved in technical assistance to member countries and training programmes. Requests for advice and comments on reports being prepared elsewhere and for briefs, will be met to the limit of available resources.
19. This sub-programme includes the issuance of the Seventh Report to the Conference on progress in International Agricultural Adjustment (IAA). This will be the first full report to be produced under the new arrangement of four-year (rather than biennial) periodicity, following the submission, on an exceptional basis, of a partial report to the Twenty-fifth Session of the Conference.

20. A request was made by the Tenth Session of COAG, subsequently endorsed by the Programme Committee at its May 1989 session, regarding the preparation of a regional study for Asia and the Pacific. Subject to Council and Conference approval, preparations for such a study will be initiated in the 1990-91 biennium within existing resource levels throughout the Organization. The costs of this study will be met through redeployment, as progressively identified. The major portion of the costs will have to be covered in the following biennium.
21. Provision is made to continue the analysis and reporting of the data on external assistance for agricultural development upon request and in the annual report on the state of food and agriculture. The data bank on official financial flows and technical assistance to developing countries from external sources has been transferred to the Statistics Division (ESS), where it will be maintained and become part of WAICENT.
22. Work on domestic resources for agricultural development had covered flows for agricultural development in previous biennia. During 1988-89 and in 1990-91, coverage is also ensured of resource flows from agriculture, with specific attention given to agricultural taxation. It remains essential to improve the quality of the data on domestic resource flows to and from agriculture. In collaboration with the IMF, ongoing efforts to develop data compatible with the IMF framework for reporting government statistics, will continue. Two publications are planned, one on domestic resources for agriculture in developing countries and the other, following a meeting on the subject, on agricultural taxation in developing countries.

- Sub-programme 2.1.8.3: Commodity Policies and Trade

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Producer/Consumer Consultations and Action under FAO Auspices	4 222	65	4 287	55
02	ECDC in Agricultural Commodity Trade	953	(8)	945	12
03	Collaboration with UNCTAD, GATT and Other Organizations	1 183	47	1 230	16
04	National Commodity Policies, including Incentive Policies	1 388	(99)	1 289	17
Total		7 746	5	7 751	100
Cost Increases 1990-91 1990-91 Budget				1 433 9 184	

* Increase (Decrease)

23. The major part of resources for this sub-programme will continue to be devoted to the analytical activities and meeting costs for producer/consumer consultations on commodity problems in the framework of the intergovernmental groups (IGGs) (including their sub-groups) and the Committee on Commodity Problems. Although the number of planned commodity meetings is proposed to be kept at the same level, costs are to be reduced by streamlining their organization, documentation and servicing. As in the past, a flexible approach will be adopted in convening sessions of IGGs, taking into account the situations faced by different commodities, the priorities of governments and action on commodities in other fora. Within the overall resource level, provision has been made in order to respond to the needs that may arise from the ratification of the Common Fund for Commodities, which is likely to become operational in 1990-91. The provision takes into account the possibility that some of the FAO Intergovernmental Groups may be designated by the Common Fund as eligible International Commodity Bodies (ICBs) to sponsor Research and Development projects for financing under the Second Account of the Fund.
24. More attention has been given in recent years to monitoring and analyzing developments in cereal policies. It is planned to expand coverage to other food commodities, such as sugar, and to make the results widely available through an annual document. The substantive preparation of a new assessment for agricultural commodity trade prospects over the medium term (five years ahead) will be initiated in 1990-91. Related analytical work and publication of the results would be continued into 1992 in order to spread costs. The costs of this periodic activity, for which there is high demand among both developed and developing member countries, other agencies and the private sector, are to be met by both this sub-programme and Sub-programme 2.1.8.4 (in view of the bearing of the trade outlook on food security concerns). For this, internal shifts are made as well as from savings stemming from streamlining of intergovernmental meetings.
25. Three regional meetings are planned in support of ECDC in agricultural commodity trade. Among them, two workshops will cover: hides and skins in the Asia and Pacific Region, focusing on the scope for intra-regional trade and joint support services for export promotion in hides and skins, leather and derived products; and cereals and roots/tubers in Africa, reviewing policy developments and allowing an exchange of experience in the liberalization of cereal markets in the region. The third meeting would be of a regional outlook nature, planned to be held in Latin America and the Caribbean, covering the short-term market prospects for agricultural commodities of crucial interest to the region.
26. Strengthening and establishment of new information networks in support of ECDC in trade will be sought, building on the ESC Division's "hub" role in many of its commodity activities. More emphasis will be placed on encouraging participants to extend mutual information-exchange activities, involving the private sector where possible. In particular, support will be given to RLAC in strengthening and broadening the activities carried out by the Latin American Network on Tropical Fruit Agro-industry. This is in follow-up to the ECDC Seminar on Tropical Horticultural Products in the Region held in 1987.
27. Beyond support to the Common Fund, cooperation will continue with other international organizations dealing with commodities and trade. In

particular, support to UNCTAD in the revitalization of the Integrated Programme for Commodities, to the Uruguay Round of GATT trade negotiations and to specialized commodity organizations, including the International Jute Organization. Resources for this programme element have been increased slightly.

28. In order to pursue the country orientation of FAO's commodities and trade policy work, continued advice will be given on national commodity policies, under the Commodity Policy at the Country Level (CPCL) programme of the ESC Division. This includes technical backstopping, strengthening of national capacity in the analysis of commodity market developments and in commodity policy formulation, and further TCP and extra-budgetary assistance.

- Sub-programme 2.1.8.4: World Food Security

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Food Security Assistance Scheme (FSAS)	1 643	310	1 953	46
02	International Food Security and Food Aid Policy	2 672	(383)	2 289	54
Total		4 315	(73)	4 242	100
Cost Increases 1990-91				665	
1990-91 Budget				4 907	

* Increase (Decrease)

29. In the programme element covering the Food Security Assistance Scheme (FSAS), the net programme increase of US\$ 310 000 is made to strengthen technical assistance activities and facilitate comprehensive action by developing countries, within the expanded mandate of the FSAS. This builds on the decisions of the Council and Conference, following the independent evaluation of the FSAS undertaken in 1986-87, and the steps taken since then to implement them.

30. In view of the precarious situation arising from declines in world production of staple foods in 1987 and 1988 and the drawdown of global cereal stocks, it will be necessary to closely assess the global food security situation and outlook, and to support intergovernmental consultations on possible remedial measures. In line with the recommendations of the Committee on World Food Security, further reviews of national experiences with the implementation of food security policies and programmes will be prepared and lessons drawn for other countries. The annual publication: Food Aid in Figures and analytical work on food aid policy issues as they relate to food security, will be continued. The decrease in resources reflects mostly a shift to the previous element.

- Sub-programme 2.1.8.5: Agricultural Planning Assistance

Programme Element Title	1988-89 Approved Budget	Programme 1990-91 Change * Budget	Percent of Sub- Programme
01 Sector/Sub-sector Planning and Analysis	1 165	(16)	1 149 23
02 Decentralized Planning and Analysis	726	84	810 16
03 Policy Analysis and Planning	1 169	500	1 669 33
04 Project Planning and Analysis	868	(103)	765 15
05 General Support to Policy and Planning	923	(236)	687 14
Total	4 851	229	5 080 100
Cost Increases 1990-91 1990-91 Budget			766 5 846

* Increase (Decrease)

31. The sub-programme uses two distinct but closely related and complementary means of action: (a) planning assistance; and (b) training. Each element includes both means of action.
32. Work on sector and sub-sector planning and analysis will include support to sector review and programme formulation missions to member countries. Increased emphasis is to be given to the integration of environmental considerations into the planning process, the role of private agents in sectoral development and the links between agribusiness and other sub-sectors. The training component will be increased, in response to additional extra-budgetary resources for training, using the Computerized System for Agricultural and Population Planning Assistance and Training (CAPPA), which was developed with the assistance of UNFPA and has demonstrated considerable potential for planning as well as training.
33. Additional resources are provided to respond to requests for assistance in decentralized planning and analysis. A training handbook will be prepared and existing training material will continue to be adapted to specific country situations. Sub-regional "training of trainers" will be given attention, so as to disseminate knowledge and experience in decentralized planning to a larger number of countries. This element also includes the preparation of training materials for integration of energy concerns in decentralized agricultural and rural development planning. While resources for case studies and guidelines for multi-level planning are to be reduced, member countries' capacities to perform tasks essential to the decentralized planning process are to be enhanced through: strengthening local planning institutions; integra-

ting environmental concerns into planning; developing financial resource allocation procedures; enhancing private business, NGO and public participation in development; assessing (at all planning levels) the demands for agricultural products, the existing and potential use of natural and human resources, the present and potential supplies of agricultural commodities and processed products, the costs and returns from sector related activities, etc..

34. In view of the increase in member country requests for agricultural policy advice, technical assistance and training in policy analysis, and in the light of FAO Governing Bodies' recommendations, highest priority is placed on the policy analysis and planning element. An additional US\$ 500 000 is provided for the training and direct assistance components. Through missions and projects, the objective will be to assist member countries in policy review and reformulation processes, by providing advice and by strengthening their own capacity to perform policy analyses. The programme of work for training entails the identification of problem areas where strengthening of analytical capacity is urgently required and the assessment of training needs. In turn, this will require the development of policy analysis guidelines, additional training materials and supporting microcomputer applications, formulation and execution of pilot training courses and integration of country training activities in a regional framework, through regional and sub-regional projects. The planning assistance component will also focus on member countries' preparations for policy review meetings with donors and for negotiating stabilization and structural adjustment programmes with lenders, primarily by assisting them in the monitoring and assessment of the impact of policies and adjustment programmes. Assistance in formulating policies for sustainable agricultural and rural development over the longer term will also be stepped up. Provision is made for assistance to policy analysis and planning to requesting member countries, in follow-up to the Plan of Action for the Latin America and the Caribbean Region, approved by the Regional Conference.
35. A reduction is made for assistance in project planning and analysis, mainly because a large amount of training material has been developed and tested, including DASI, a microcomputer software training tool. Furthermore, many training activities are being carried out within the framework of field projects. However, new fields of training will need to be developed, e.g. in agroprocessing and the environment, or the linkage between investment planning and sector planning to be explored more fully, and the DASI software fine tuned. The demands from developing countries for assistance in setting up monitoring and evaluation systems will also be met (for projects financed by domestic resources in general, and by external assistance in particular). This includes appropriate systems of analysis and administrative and organizational procedures and computerized processing to provide timely information.
36. General support to policy and planning includes continuing assessments of changes in national planning systems and components, reviews of planning and policy analysis approaches, methodology, techniques and tools, as well as multipurpose training and planning assistance activities. Reviews and studies of changes in planning systems, methodologies and techniques are required to keep the programme properly focused and to develop appropriate training materials and tools. Despite the reduction in resources, provision is made to continue the initiatives

begun in 1988-89 for: in-service training of FAO headquarters and field staff; integrating environmental considerations into the planning process; improving guidelines for the conduct of policy impact assessments and other steps required to prepare for policy review meetings or structural adjustment negotiations.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit	
Global	14 817	RP	34 020	AGD	948
Africa	28 857	Govt. Programmes	28 330	AGO	35 386
Asia and Pacific	11 560	UNDP	12 325	DDF	1 578
Near East	9 242	WFP	196	ESC	15 789
Europe	1 269			ESD	1 459
Latin America	9 126			ESP	13 645
				GII	35
				Regional Offices	6 031
TOTAL	74 871		74 871		74 871

Programme 2.1.9 - Programme Management

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
2.1.9.1 Agriculture Department	1 143	0	223	1 366	12.0	0
2.1.9.2 Economic and Social Policy Department	1 537	295	349	2 181	18.0	417
2.1.9.7 Regional Offices	4 588	(182)	613	5 019	56.8	0
Programme 2.1.9 Total	7 268	113	1 185	8 566	86.8	417

* Increase (Decrease)

1. This programme covers the immediate offices of the Assistant Directors-General of the Agriculture and the Economic and Social Policy Departments and apportionments of the costs of offices of Regional Representatives for the management of activities under Major Programme 2.1: Agriculture.
2. An increase is necessary for ESD to accommodate the D-1 post of Coordinator of FAO's Population Programme. The post of the Population Programme Coordinator was originally financed by the UNFPA. Thanks to UNFPA support, FAO's Population Programme has developed into an articulated set of global, regional and country-level activities. As jointly discussed with UNFPA, the importance of population concerns to FAO programmes now warrants that this post be established under the Regular Programme. Use will be made of mechanisms such as the Inter-departmental Working Groups on Rural Development, on Women in Development and on Population to further develop population-related activities in the Organization.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region	Fund	Unit
Global	2 716 RP	8 566 AGD
Africa	1 327 UNFPA	417 ESD
Asia and Pacific	1 295	Regional Offices
Near East	1 889	
Europe	743	
Latin America	1 013	
TOTAL	8 983	8 983

Major Programme 2.2 - FISHERIES

Long-term Trends, Goals and Strategies

1. World fish production recorded its eleventh consecutive year of growth in 1988; preliminary data indicates a new record catch of over 95 million metric tons. However, a great part of the recent increase in production is due to catches of shoaling pelagic species, which are well known for their fluctuations in abundance and are used, in large measure, for conversion to fishmeal rather than for direct human consumption. The recent surge in production is mainly attributable to increased catches in the Southeast Pacific (west coast of South America). Of the 10 million ton increase in catch achieved since 1985, 7 million tons are accounted for by developing countries. Notwithstanding this global expansion, many states continue to face difficulties in obtaining greater economic, social and nutritional benefits from their fishery resources. Supplies of fish for human consumption have lagged behind the overall increase in production, with consequent rises in the prices of preferred species and products. Paradoxically, with aquaculture making an increasingly important contribution to fish supplies, aquaculture's demand for fish feed is fuelling additional market pressures for fish meal.
2. There is thus a continued need for governments to review their individual and collective strategies and policies concerning fisheries management and development. In this period of change, the challenge is to provide an improved and sustainable basis for the rational management and utilization of world fisheries resources. In particular, the fisheries sector has the potential to make a greater contribution to world food supplies, thereby helping to alleviate undernutrition and to underpin world food security. Fisheries development should also aim at improving the socio-economic conditions of small-scale fishing and fish farming communities which are often among the poorest sections of the population. In this respect, the re-assessment of strategies and policies for fisheries management and development must take into full account, not only the present and potential contributions from marine fisheries, both within and outside exclusive economic zones, but also the present and potential roles of inland fisheries and aquaculture. Furthermore, consideration must be given to the essential factors of production such as fishing boats, gear and technology, skilled personnel and research capabilities. The growing concerns about environmental degradation and pollution and the impact of coastal zone developments upon fish stocks need to be met by determined action to reverse past trends.
3. The authority of coastal states over fisheries in their exclusive economic zones is a necessary but not a sufficient condition for the rational management and optimum use of marine resources. Problems remain with regard to improved competence in exercising that authority. Rational management is indeed an integral part of the development process and management systems must encompass all users of the resources, including domestic and, where permitted, foreign vessels. Particular management problems are arising from stocks occurring within the exclusive economic zones of two or more coastal states, or both

within exclusive economic zones and in the areas beyond and adjacent; or from highly migratory species; or in inland water stocks that at different times come under the jurisdiction of more than one country. Continued strong collaboration between countries, will therefore remain an important feature of fisheries development.

4. This situation and prospective future trends raise important issues for strategies, policies and programmes. Under the pressures of rising incomes and growing populations, the demand for fish as food will continue to expand. Moreover, the exploitation of many traditionally-accepted food fish species has reached or has already exceeded their sustainable yields.
5. Concerted action is called for on a number of fronts. The resources must be properly managed so as to permit sustainable development of fisheries. Means must be sought to exploit, and bring economically to market, species so far neglected. Continued efforts must be made to tackle the problem of wastage and post-harvest losses so as to make more effective use of existing catches. Further steps are required to increase the contribution of aquaculture and inland fisheries to food fish supplies and augment their contribution to rural development. Developing countries require further assistance to enhance their own capabilities and to acquire the required skills and technologies, as well as to increase their share of the rapidly-expanding international trade in fish and fishery products. Increased emphasis must be given to the protection of the aquatic environment by combatting degradation of inland, coastal and marine waters. An essential pre-requisite is the cooperation of countries sharing the same sea water mass or river basin.
6. These long-term objectives were fully reflected in the Strategy for Fisheries Management and Development endorsed by the 1984 World Conference on Fisheries Management and Development. The Strategy and its five associated Programmes of Action continue to provide the major frame and guidelines for FAO's work in fisheries. The programme of work under Major Programme 2.2 has been formulated to ensure continued attention to priority activities and the effective delivery of advice and assistance to member countries in the field of fisheries.
7. The Committee on Fisheries, at its Eighteenth Session in April 1989, assessed the prevailing state and future prospects of world fisheries and made recommendations regarding areas for emphasis in the Organization's future work in fisheries. These priorities are reflected in the core FAO programme in fisheries: the conservation and rational utilization of fishery resources in marine and inland waters; small-scale fisheries development; aquaculture development; improved fish utilization and marketing, and promotion of the role of fish in nutrition; assistance to developing countries in the planning of fisheries development, management and investment; strengthening of FAO's role in the collection, analysis and dissemination of fishery data and information; continued technical support for FAO regional fishery bodies, and the monitoring and prevention of environmental degradation. The achievement of self-reliance of developing countries in fisheries development and management requires substantial training and active transfer of knowledge, skills and appropriate technologies. Other priority concerns are the promotion of TCDC and ECDC, the role of women in fisheries and the special needs of developing landlocked and small island states.

Programme 2.2.1 - Fisheries Information

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
2.2.1.1 Aquatic Sciences and Fisheries Information	1 082	137	262	1 481	17.9	464
2.2.1.2 Fishery Data and Statistics	2 815	(25)	573	3 363	35.4	1 267
2.2.1.7 Regional Offices	206	41	27	274	4.0	0
2.2.1.8 Field Programme Support	403	0	82	485	6.7	126
Programme 2.2.1 Total	4 506	153	944	5 603	64.0	1 857

* Increase (Decrease)

Medium-term Objectives

1. In response to the needs of member countries for fisheries information and statistics, as expressed at the World Fisheries Conference and at sessions of the FAO regional fishery bodies and the Committee on Fisheries, the medium-term objectives of this programme are: (1) to continue to build the global databases of fishery statistics and of published information on fisheries and related aquatic sciences; (2) to improve access to this information by developing new outputs and by exploiting new information technology; (3) to provide assistance to developing countries for the establishment of fishery data and information systems; and (4) to improve the organizational arrangements for participation of member countries and regional bodies in cooperative fishery information systems.
2. The most important objective is to continue the updating and improvement of FAO's databases of fishery statistics and published information. The yearbooks, bulletins, abstracts and other publications derived from them, provide a unique long-term worldwide coverage in demand by member countries. The publication of more detailed and accurate statistics for high priority sectors of fisheries, especially aquaculture, is also required.
3. The development of new and improved products will go hand-in-hand with improved processing of and accessibility to FAO's fishery information and statistics through electronic media. A major objective for the medium term is thus to ensure efficiency and timeliness of fishery

information dissemination through increased use of computing equipment. This will be done in conjunction with the FAO-wide World Agricultural Information Centre (WAICENT) project.

4. The international cooperative networks of fishery statistical agencies and of fishery information centres will be further developed, especially in the developing regions of the world. FAO will act as the global coordinating agency to stimulate implementation of common standards and practices, ensure the provision of needed international technical assistance and encourage donor agencies to provide funding support to regional and national centres.
5. A related objective is to provide advice and technical assistance for the development of statistical systems and fishery data centres. This will be done through regional fishery bodies as well as directly to member countries, primarily through backstopping of field projects.

Focus of the Programme

6. Access to reliable and timely information is recognized as an essential component of fisheries planning, management and utilization in both the governmental and private sectors. Owing to the international character and the complexity of fisheries, both developed and developing countries require information that can only be collected and organized effectively through global cooperative effort. FAO is looked upon to provide global leadership in fisheries information and statistics, organize and support cooperative technical programmes and provide a forum for achieving agreement on technical standards and procedures.
7. Responsibility for implementation of this programme rests with the Fishery Information, Data and Statistics Service in the office of the Assistant Director-General of the Fisheries Department (FI), and with the Regional Offices.
8. The programme seeks to meet worldwide needs for fisheries and marine information through a cooperative network of information centres. FAO is active within this system, along with the Intergovernmental Oceanographic Commission (IOC), the United Nations Office for Ocean Affairs and the Law of the Sea (UNOALOS), and the Ocean and Coastal Areas Programme of the United Nations Environment Programme (UNEP/OCA/PAC). FAO represents the interests of the fisheries community, IOC of oceanographic programmes, UNOALOS of marine technology and mineral resources, and UNEP/OCA/PAC of marine environmental concerns. Twelve centres of member countries participate, while a number of others are under development. In addition to being an operational information centre, FAO provides the secretariat for ASFIS. Through this cooperative system, coverage is achieved of the world's literature of aquatic sciences and fisheries. Resources provided by the cooperating agencies of the United Nations system serve as the basis for the building up of capabilities of developing countries in organizing and gaining access to information needed for fisheries management. Donor agencies are providing direct technical assistance to member countries and regional organizations with the express intention of developing information services linked to ASFIS.
9. The programme also maintains the only global database of fishery statistics. The database is compiled with the collaboration of national statistical offices and fishery administrations in member

countries. In order to harmonize fishery statistics compiled by FAO with those of regional bodies, both those affiliated with FAO and others, FAO works with them directly, through the Coordinating Working Party on Atlantic Fishery Statistics, through joint projects with regional bodies in other areas, and through global consultations with tuna agencies. FAO also works with regional fishery bodies in compiling and issuing regional bulletins that provide a finer degree of detail than the global "Yearbook of Fishery Statistics". The programme responds to the needs of member countries for assistance in the design and implementation of fishery statistical systems and fishery data centres. Where possible, this work is carried out in conjunction with other technical assistance from donor agencies, in order to make the best use of resources. FAO assistance is provided through missions to individual countries, through working parties on statistics of FAO regional fishery bodies, and through expert consultations that stimulate technical cooperation among countries.

10. The programme also provides a project information service for 35 donor and technical assistance agencies that sponsor field projects in fisheries. This service assists in avoiding duplication and provides a basis for comparative analysis of capital and technical assistance in fisheries.

Plan of Action

- Sub-programme 2.2.1.1: Aquatic Sciences and Fisheries Information

Programme Element Title	1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01 Collection, Analysis, and Dissemination of Fisheries Information	846	137	983	81
02 Development of Fishery Information Centres and Services in Member Countries and Regional Bodies	236	0	236	19
Total	1 082	137	1 219	100
Cost Increases 1990-91			262	
1990-91 Budget			1 481	

* Increase (Decrease)

11. The programme element on collection, analysis, and dissemination of fisheries information will continue FAO's participation in the production of "Aquatic Sciences and Fisheries Abstracts". Improved coverage will be sought of: a) aquaculture information; b) marine environmental conservation and pollution; c) artisanal/small-scale fisheries; d) tropical fisheries, and other subjects of relevance to sustainable development of fisheries. Following a recommendation emanating from a consultation of over 30 donor agencies, the need for improved storage and sharing of field project information will be addressed by establishing a Fishery Investment Project Information System (FIPIS). The services of the Fisheries Branch Library will also be expanded in order to strengthen the "corporate memory" of past and current projects of FAO and other agencies. It is proposed to establish one Fishery Information Officer P-3 post.
12. The programme element on development of fishery information centres and services in member countries and regional bodies will be continued at the same level. Emphasis will be placed on initiating or strengthening regional or national fisheries information centre projects through training and provision of standards, guidelines, and computer software. For the most part, activities will depend on the assistance of donor agencies.

- Sub-programme 2.2.1.2: Fishery Data and Statistics

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Collection, Analysis, and Dissemination of Fishery Statistics	1 596	25	1 621	58
02	Fishery Data Centre Services	672	194	866	31
03	Development of Fishery Statistical and Data System in Member Countries and Regional Bodies	547	(244)	303	11
Total		2 815	(25)	2 790	100
Cost Increases 1990-91 1990-91 Budget				573 3 363	

* Increase (Decrease)

13. The programme element on collection, analysis, and dissemination of fishery statistics provides for all of the activities leading to the regular production of the two volumes of FAO's "Yearbook of Fishery Statistics" (Catches and Landings, Fishery Commodities) and the maintenance of FISHDAB, the computerized database of fishery statistical time series by geographical areas, species, and imports and exports of fishery commodities. The improvement of aquaculture statistics, as a separately identifiable component of fishery statistics, accounts for the increase under this element. Also included are bulletins and computer databases on fishing fleets and detailed regional data. In addition to publication of the data, many requests are filled by retrieval of special tabulations from the database.
14. The fishery data centre services element covers computer processing of fishery statistics and other computer applications such as project management information, expert and institutional registers, and mailing lists. In the 1990-91 biennium, the major thrust will be to improve timeliness and accessibility of the fishery statistical database (FISHDAB) through new computer-based systems, in conjunction with the World Agricultural Information Centre (WAICENT), hence the increase.
15. The programme element on development of fishery statistical and data systems in member countries and regional bodies provides for FAO to assist in improving countries' statistical systems through compatible standards, efficient application of statistical theory and methods, and use of computers to overcome problems of limited skilled staff. Assistance to member countries and regional bodies will include further standardization of fishery statistics among regional fishery organizations. Requirements for coordination in the Pacific and Indian Oceans, as well as for statistics on highly migratory species such as tuna, are still extensive. The aim is to make fishery statistics more accurate, eliminate discrepancies among databases of various regional commissions, and avoid duplicative reporting requirements.
16. It is hoped that the decrease in resources for direct technical assistance in the design of national fishery statistical systems will be only temporary. In the following biennium, when the modernization of the Fishery Data Centre is completed, funds could be restored to direct technical assistance. In this connection, it may be noted that several donor agencies are presently providing bilateral assistance in this area and some FAO-executed field projects have statistical components.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit	
Global	3 805	RP	5 603	AGR	300
Africa	1 224	Govt. Programmes	1 552	FI	5 329
Asia and Pacific	1 413	UNEP	300	FIO	1 557
Near East	571	WFP	5	Regional Offices	274
Europe	14				
Latin America	433				
TOTAL	7 460		7 460		7 460

Programme 2.2.2 - Fisheries Exploitation and Utilization

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
2.2.2.1 Marine Resources and Environment	3 041	(50)	523	3 514	24.0	18 635
2.2.2.2 Inland Fisheries and Aquaculture	3 171	235	598	4 004	28.0	17 495
2.2.2.3 Fish Production	2 291	0	354	2 645	18.0	11 214
2.2.2.4 Fish Utilization and Marketing	2 251	0	301	2 552	16.0	11 580
2.2.2.7 Regional Offices	1 220	(106)	128	1 242	14.1	0
2.2.2.8 Field Programme Support	2 373	27	579	2 979	38.0	3 961
Programme 2.2.2 Total	14 347	106	2 483	16 936	138.1	62 885

* Increase (Decrease)

Medium-term Objectives

1. The objectives of this programme have been elaborated in the Strategy for Fisheries Management and Development and the Programmes of Action approved by the World Fisheries Conference as follows:
 - contributing to accelerated aquaculture and inland fisheries development, particularly in landlocked countries of regions lacking other sources of fish protein;
 - improving world knowledge of exploitable fishery resources and the quality of biological data on such resources;
 - improving methodologies and techniques for the conservation and management of fishery resources in both marine and inland waters to ensure their sustainability;
 - assisting member countries towards self-sufficiency in evaluating and managing their own fish stocks;
 - supporting member countries in the protection of aquatic environments for fisheries;
 - improving socio-economic conditions of rural communities primarily dependent on small-scale artisanal fisheries or fish farming; increasing the number of trained personnel to provide technical, advisory and extension services to this small-scale sector;

- reducing energy and other operating costs throughout the fish production chain, particularly in small-scale fishing operations;
- increasing the share of developing coastal countries in the exploitation of offshore resources within their exclusive economic zones;
- providing support to fisheries research development and training at an affordable cost to developing countries through cooperative use of vessels;
- enhancing the role of fisheries in alleviating undernutrition and increasing supplies of food fish for the poorer segments of the population, through improved utilization of resources and reduced post-harvest losses;
- ensuring closer collaboration between developing countries in fish technology and fish product research; and
- enhancing the performance of developing countries in fish trade, both in terms of volume and value.

Focus of the Programme

2. This programme is the largest of the three substantive fisheries programmes in terms of resource allocation. It covers a wide range of activities in support of the World Fisheries Conference's five Programmes of Action, namely: the planning, management and development of fisheries; small-scale fisheries development; aquaculture development; international trade in fish and fishery products; and the promotion of the role of fisheries in alleviating undernutrition. For 1990-91, the highest priority is accorded to aquaculture development under Sub-programme 2.2.2.2.
3. Responsibility for implementation rests with the Fishery Resources and Environment Division (FIR) for Sub-programmes 2.2.2.1 and 2.2.2.2. The Fishery Industries Division (FII) operates Sub-programmes 2.2.2.3 and 2.2.2.4. Sub-programme 2.2.2.7 covers the activities of Regional Offices under the programme. The provisions for Sub-programme 2.2.2.8 are shared between FIR and FII.
4. The programme is concerned with various aspects of fishery resources evaluation, including the development of methodologies and techniques for stock assessment for use in fishery planning, development and management. Marine fishery resources provide for approximately 85 percent of the total world fish catch. Of the total marine fish catch, over 90 percent have been taken within the exclusive economic zones and approximately half of the total catch harvested by developing countries. These resources are renewable and can therefore lead to sustained exploitation and provide benefits indefinitely, provided that the fisheries exploiting them are rationally developed and managed and that the basic productivity constraints of resources are taken into account. The programme is therefore structured to effectively respond to the above conditions by: (i) promoting the collection of appropriate biological and fishery data; (ii) transferring, adopting

and creating, when necessary, appropriate methodologies for data analysis and stock assessment; (iii) providing the world community with reviews on the state of fish stocks at the regional and global levels which are regularly updated; (iv) providing support and advice to FAO and non-FAO fishery bodies in those fields, including resources management and advice on resource availability for development; and (v) training on a worldwide basis on matters related to fishery assessment and management.

5. The programme also covers studies on the biology, protection and enhancement of fish stocks in inland waters, dissemination of information on aquaculture and support to governments in planning aquaculture development and the protection of aquatic environment from pollution. Inland fisheries and aquaculture together provide approximately 15 percent of the world production of aquatic foods, but are both of special significance - inland fisheries because of the much greater proportion that is consumed locally, with a resulting important impact on protein intake, and aquaculture because of its growing importance in international trade and its great potential for ensuring the future growth in the production of aquatic foods. In both areas, emphasis is given to assisting Member Governments to assess their resources, plan their rational management and development, and provide assistance to fish producers. The activities initiated by the UNDP/FAO Inter-regional Aquaculture Development and Coordination Programme, which will be terminated in December 1989, will need to be continued and possibly strengthened; these Regular Programme activities will complement regional projects for research and training in Africa, Asia, Latin America and the Mediterranean and will provide guidelines for a broader range of supporting services to the sector. The impact of pollutants on fish resources is particularly great in inland waters and in lagoons, estuaries and similar inshore coastal areas. These same areas are also those which are likely to be most suitable for aquaculture. Because of its many-faceted nature, work on pollution takes account of interdepartmental activities coordinated by Sub-programme 2.1.4.5, those of the regional fishery bodies (particularly as related to inland waters and aquaculture), and inter-agency activities and programmes (for marine resources).
6. A large amount of the fish caught for human consumption is provided by small-scale fishermen, especially in the developing countries. This sector of the population is often the most disadvantaged in terms of economic rewards and social amenities. The programme continues to focus on all aspects of the harvesting of fish and improvements of the conditions of life in fishing communities and safety of the fishermen. This necessarily embraces the creation, adaptation and adoption of improved techniques and technologies associated with the means of capture and landing of fish; boats and propulsion systems; material from which they are made and the energy sources required; gear and handling equipment needed on board the boats and as means of capture; servicing the repair of gear and equipment and the development of training and information systems required to disseminate the information to the fishermen via extension services; and advice to governments. The socio-economic conditions under which communities operate are an important facet of development of small-scale fisheries and close attention is paid to this and to the role of women and youth in the sector. The programme also focuses on the development of

offshore fisheries and on the promotion of techniques for the exploitation of under-utilized and non-utilized stocks. Collaboration with other agencies such as the International Maritime Organization (IMO) on training and safety, Unesco and the International Labour Organization (ILO) on training, and UNIDO on manufacturing industries in support of fisheries, are an essential element in the attainment of the objectives envisaged. The programme will provide further support to fisheries research and management of resources through cooperative use of vessels for fisheries research, development and training and act as a clearing house for fisheries advisory services on fish capture and aquaculture technology.

7. Regarding fish utilization and marketing, the programme deals with all aspects of post-harvest activities in pursuit of the basic objectives of increasing the use of fish resources for direct human consumption, and enabling developing countries to reap maximum benefits from international trade in fish and fishery products. Reduction of post-harvest losses and wastage (estimated at 10-15 percent of total world catch) due to spoilage, improper handling and discard at sea of unwanted species, could contribute directly to increasing food supplies. In order to ensure that fishery resources make the greatest possible contribution to alleviating undernutrition, the programme seeks the systematic integration of fisheries development considerations into national nutritional policies and conversely the incorporation of nutritional aspects in national fishery policies. Close cooperation is maintained with Programme 2.1.6: Nutrition, and with the World Food Programme. Domestic fish marketing is a critical aspect of full utilization of fishery products and in relation to the prevention of physical and economic losses. National action needs to cover marketing logistics and operations, particularly in respect of fish supplies for large population centres. The programme also includes work on commodities and market development and more generally on fish trade. The mechanism recommended by the World Fisheries Conference is now fully operational centering on the COFI Sub-Committee on Fish Trade and the FAO-supported network of regional fish marketing information and technical advisory services. Emphasis is put on concrete measures and activities aiming at the improvement of the position of developing countries in international trade in fish and fishery products.

Plan of Action

- Sub-programme 2.2.2.1: Marine Resources and Environment

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Improvement of Biological Data on Exploited Resources	443	0	443	15
02	Fishery Resources Assessment Methodology	653	97	750	25
03	Monitoring and Assessment of World Resources	695	0	695	23
04	Technical Support to Fishery Bodies, Projects and Member Nations	1 103	0	1 103	37
05	Training in Resource Assessment and Management	147	(147)	0	0
Total		3 041	(50)	2 991	100
Cost Increases 1990-91				523	
1990-91 Budget				3 514	

* Increase (Decrease)

8. The priorities of this sub-programme are largely determined by the requirements of the FAO regional fishery bodies and are not susceptible to dramatic changes.
9. Activities related to the improvement of biological data on exploited resources will remain at the same level and concentrate on the production of additional world catalogues of major tropical fish species (carangidae, catfish, threadfin breams, lobsters, crabs, etc.), as well as on the development of national field guides on request. The development of the computerized global fish database, being undertaken in collaboration with ICLARM, will be pursued in order to meet growing demands. In particular, important groups like cephalopods, lobsters and crabs will be covered provided that extra-budgetary funds are available.
10. A net increase is made for fishery resources assessment methodology, including the preparation and distribution of specialized computer software for stock assessment and management. Emphasis will be placed on reliable computer tools for fishery simulations, bio-economic modelling, and production modelling of unstable stocks affected by climatic variations. Much of this work will be done in collaboration with national laboratories with experience in stock assessment in each region. The software will be tested through the training courses

organized by the related Trust Fund project, and the national or regional workshops funded from extra-budgetary sources. In addition, basic manuals on stock assessment will be prepared with attention to sampling techniques, growth studies, coastal management and to the conservation of habitats critical for fisheries production.

11. Monitoring and assessment of world resources will be kept at the same level. Specific activities will include resources reviews for the Arabian Sea and Northern Indian Ocean, South Pacific Island countries, and the Eastern Central Pacific, as well as the world review submitted to the Committee on Fisheries. Particular emphasis will be put on the problems of tuna resources in the Pacific Ocean and the analysis of interactions in tuna fisheries. An expert consultation on this subject is planned.
12. Direct technical support to fishery bodies, projects and Member Nations will retain the major share in budget allocation. Support activities will be resumed in connection with various tuna bodies and especially the FAO body in the Indian Ocean. Involvement with Antarctic resources, where problems are expected to occur in the near future, is also foreseen. Attention will also be given to promote the concept of integrated coastal fisheries management, including assessment of environmental impacts on coastal fish resources of fishing and non-fishing activities.
13. Training in resource assessment and management will continue to be carried out under Trust Fund arrangements. The previous Regular Programme contribution to training has been transferred to element 02 for the production of training materials (manuals and software).

- Sub-programme 2.2.2.2: Inland Fisheries and Aquaculture

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Land and Water Use Planning for Aquaculture and Inland Fisheries	686	93	779	23
02	Technical Assistance and Extension in Aquaculture	928	102	1 030	30
03	Evaluation and Management	983	0	983	29
04	Protection of the Aquatic Environment for Fisheries	574	40	614	18
Total		3 171	235	3 406	100
Cost Increases 1990-91				598	
1990-91 Budget				4 004	

* Increase (Decrease)

14. A net increase is made to land and water use planning for aquaculture and inland fisheries including an additional post of Senior Aquaculture Adviser, P-5. In view of the discontinuation, at the end of 1989, of extra-budgetary support to the UNDP/FAO Aquaculture Development and Coordination Programme (ADCP), it is necessary to continue the coordination of the various regional programmes in aquaculture, in line with Programme of Action No. III - Aquaculture Development, adopted by the World Fisheries Conference. Work on the application of FAO's Geographic Information System (GIS) to planning for aquaculture and inland fisheries will continue with two workshops in Africa. Extra-budgetary funds will also be available to support these activities. Sub-regional seminars using computer demonstration and training modules are also planned, as follow-up to the workshops already held in Asia and Latin America. Assistance to member countries in assessing their aquaculture potentials and in planning aquaculture development will be continued. The special requirements of landlocked countries will be borne in mind, as emphasized by the Committee on Fisheries.
15. Additional resources are also proposed under technical assistance and extension of aquaculture, including the establishment of a P-4 post of Aquaculture Specialist, to provide technical support in the areas of fish nutrition and fish feed formulation. The preparation of manuals and other extension material will continue. Missions will be fielded to advise member countries on technical aspects of aquaculture development.
16. The level of resources assigned to evaluation and management of inland fisheries remains unchanged. Work under this element is aimed at collecting, analyzing and disseminating information on research and management of inland fisheries resources in lagoons, lakes, reservoirs and rivers. Particular emphasis is given to the environmental aspects of the conservation of living aquatic resources in inland waters for fisheries purposes. The element includes direct advice to member countries on basin-wide planning, and also provides for servicing of working parties of the regional fishery bodies dealing with inland water fisheries and environmental issues.
17. An increase is proposed for the element protection of the aquatic environment for fisheries, which addresses particularly pollution problems. Support will continue to the UNEP Regional Seas Programme (in particular in West and East Africa) and cooperation with the Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP). Activities of the FAO regional fishery bodies concerned with the effects of pollution on inland waters will also continue, as will assistance to member countries on the assessment of environmental degradation and mitigation of its detrimental effects on fisheries. The impact of species introductions will also be addressed. Global strategies for aquatic environment protection will be developed.

- Sub-programme 2.2.2.3: Fish Production

Programme Element Title	1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01 General Support to Fish Production	308	(33)	275	12
02 Fish Technology	524	93	617	27
03 Fishing Vessel Technology	429	(24)	405	18
04 Appropriate Technology/Energy Conservation	113	(48)	65	3
05 Fishermen's Organizations, Services and Development	391	(58)	333	15
06 Training in Fisheries	304	(7)	297	13
07 Cooperative Use of Vessels for Fisheries Research, Development and Training	222	77	299	13
Total	2 291	0	2 291	100
Cost Increases 1990-91			354	
1990-91 Budget			2 645	

* Increase (Decrease)

18. The element general support to fish production deals with the identification of development-oriented projects and monitoring of new technologies. Advice given to governments, organizations and institutions centres on the adoption of appropriate technology. In this respect, close cooperation is maintained with other international organizations: e.g. cooperation through working groups with IMO on safety standards for the construction of fishing vessels, the safe operation of fishing vessels and the removal of offshore structures; with UNIDO on matters concerning industries in support of fisheries; and with ILO concerning conditions of work and service in the fishing industry. Activities related to advice on research vessel design and procurement have been transferred to element 07, hence the small decrease.
19. The element on fishing technology contributes to objectives related to the management of resources through: gear selection; energy optimization by reducing resistance of towed gear; and exploitation of non- and underutilized stocks, as well as offshore fishing. This element includes the activity "Clearing House for Advisory Services in Fishing and Aquaculture Technology" (for which extra-budgetary support is also available); shifts are made from elements 03 and 04 in support of this activity.

20. The element on fishing vessel technology will continue to provide advice on the design and construction of small fishing craft. It will also give priority to the use of alternative materials to hardwoods, where these are scarce, in fishing craft construction. Transfer of technology will be ensured and training manuals produced. The small decrease in resources reflects the shift to the Clearing House for Advisory Services to permit coverage of fishing vessels and machinery in the related databases.
21. The allocation to the element aimed at energy saving is slightly reduced, with the completion of some energy studies on fishing vessel operation. This will permit the provision of inputs related to energy saving under the Clearing House for Fisheries Advisory Services. Priority will be given to the production of guidelines for energy-saving and studies on the use of alternative energy sources to fossil fuels. Collaboration with other institutions and organizations will be ensured towards a common approach to optimization of energy utilization in fisheries.
22. The element dealing with fishermen's organizations, services and development is directed at the small-scale fisheries sector with emphasis on the socio-economic aspects of fishing communities, credit, and the participation of women and youth. Activities related to landing places for small-scale fishermen are to be strengthened within the same level of resources.
23. The training element remains basically unchanged. It will concentrate on fishermen's education and training with special emphasis on "safety at sea" and coordinate the preparation of training manuals produced throughout the sub-programme. In this respect close cooperation will be maintained with IMO, ILO and Unesco. The production of training materials related to fish production is expected to increase.
24. The element on the cooperative use of vessel for fisheries research, development and training will continue to maintain close collaboration with UNDP. However, the management of the related databases (created with support from UNDP) will be entirely covered by the sub-programme. IOC, IHO and UNEP will continue to supply data on research vessels and demands for sea time.

- Sub-programme 2.2.2.4: Fish Utilization and Marketing

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Increasing Food Supply by the Rational Utilization of Fishery Resources	389	35	424	19
02	Technology Transfer, TCDC and Training to Improve Utilization of Fish Resources	739	(46)	693	31
03	Increasing the Participation of Developing Countries in International Trade in Fishery Products	852	(245)	607	27
04	Promoting the Role of Fisheries in Alleviating Under-nutrition and the Use of Fish in Food Aid	271	(18)	253	11
05	Support to the Committee on Fisheries (COFI) in the Area of Fish Trade	0	274	274	12
Total		2 251	0	2 251	100
Cost Increases 1990-91				301	
1990-91 Budget				2 552	

* Increase (Decrease)

25. The programme element dealing with increasing food supply by the rational utilization of fishery resources covers several activities related to the use of fish for direct human consumption, the reduction of post-harvest losses, the expanded use of under-utilized resources, the improvement of fish marketing facilities and operations, and marketing investigations and consumption promotion. The additional resources are for increased activities on the role of women in fish utilization and marketing, and on domestic fish marketing aiming at fuller utilization of fishery products and the prevention of physical and economic losses.
26. Technology transfer in fish handling, processing and marketing will be strengthened, thanks to appreciable extra-budgetary support, particularly for training in post-harvest technology and quality assurance. Regional cooperation of institutes in developing countries dealing with fish technology will be pursued.

27. During the 1988-89 biennium, considerable emphasis was given to fish trade activities, which resulted in the full establishment of the FAO mechanisms through which the Organization's work on commodities and market development can be carried out in a coherent manner. While the two fixed-term posts of outposted officers in support of regional fish marketing information services are being discontinued, the network of regional services will be further supported, so as to implement concrete measures and activities aimed at increasing the participation of developing countries in international trade in fishery products. The operation and maintenance of the GLOBEFISH database and FAO's system of international fish market indicators will be crucial to supporting the regional services, with assistance from extra-budgetary resources. An added environmental dimension will be introduced to enhance its early warning and consumer protection impact. The reduced allocation under this element (US\$ 245 000) reflects a transfer of funds to a new programme element (No. 05), to permit the separate identification of technical activities linked to the COFI Sub-Committee on Fish Trade.
28. Under the element dealing with promoting the role of fisheries in alleviating undernutrition and the role of fish in food aid, the systematic integration of fisheries development considerations into national food and nutritional policies and plans will be sought, while the incorporation of nutritional aspects in national fishery policies will ensure that fishery resources make the greatest possible contribution to food supplies for the benefit of the poorest and weakest sections of the population. This element enjoys notable extra-budgetary support which permits a small reduction in the allocation to be effected.
29. The new element dealing with support to the COFI Sub-Committee on Fish Trade relates primarily to technical servicing of the Sub-Committee. It includes not only the preparation of meeting documents but also specific investigations of fish markets and trade-related problems and other studies prepared at the request of the Sub-Committee. It also covers any preparatory activity required in conjunction with its possible designation as an International Commodity Body for sponsoring and following up projects on fishery commodities and marketing development which might be financed by the Common Fund for Commodities when it becomes operational. It is recalled that the administrative support to the Sub-Committee is covered under Sub-programme 2.2.3.2: International Coordination and Liaison.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit	
Global	5 763	RP	16 936	AGO	495
Africa	38 170	FFH/AD	105	AGR	1 142
Asia and Pacific	15 674	Govt. Programmes	14 568	FI	15 694
Near East	13 040	OSRO	848	FIO	60 400
Europe	643	Other TF	3 000	IAA	848
Latin America	6 531	UNDP	43 152	Regional Offices	1 242
		UNEP	1 142		
		WFP	70		
TOTAL	79 821		79 821		79 821

Programme 2.2.3 - Fisheries Policy

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
2.2.3.1 Fisheries Policy and Planning	2 292	0	345	2 637	16.0	1 397
2.2.3.2 International Coordination and Liaison	3 645	57	523	4 225	22.0	0
2.2.3.7 Regional Offices	487	103	78	668	9.1	0
2.2.3.8 Field Programme Support	409	0	64	473	4.0	0
Programme 2.2.3 Total	6 833	160	1 010	8 003	51.1	1 397

* Increase (Decrease)

Medium-term Objectives

1. One of the major results of the World Fisheries Conference was the creation of increased awareness among decision-makers of the importance and potentials of the fisheries sector. It drew attention to the need, stemming from the new legal regime of the oceans, for a thorough review by governments of their policies and programmes for fisheries. Many countries, both developing and developed, are therefore reformulating their strategies for fisheries development and management and preparing new plans and projects to increase the social, economic and nutritional benefits which can be obtained from fisheries.
2. At the same time, increasing importance is being attached to technical and economic collaboration between countries as they seek to develop their fisheries, and to improve the mechanisms which exist for cooperation between developing countries, and between developing and developed countries, in fisheries research, development and management. A considerable number of international agencies and regional and sub-regional organizations are involved in various aspects of this collaboration.
3. Programme 2.2.3 therefore has two major objectives. The first is to assist countries in their efforts to redefine policies and programmes for fisheries by providing a wide range of advisory services and training in the techniques of planning fisheries development, management and investment, combined with advice and technical assistance in establishing improved administrative and operational structures for the

fisheries sector. The need for greater self-reliance and enhanced national capacities in fisheries development and management is one of the major preoccupations of many governments. It is the aim of this programme to assist countries to tackle this critical problem in respect of policy identification, formulation of development, management and investment plans and institutional considerations. Special attention is to be given to emerging issues such as planning for aquaculture development and environmental and land use considerations in integrated coastal/marine development. These areas necessitate a multi-disciplinary approach.

4. Secondly, the programme is concerned with the promotion of international and regional collaboration in fisheries research, development and management. To this end, the Organization provides an umbrella for inter-country cooperation through a worldwide network of nine regional fishery bodies, three of which relate exclusively to inland fisheries. In addition, a major function of this programme is to maintain close liaison with other international and regional organizations concerned with fisheries and marine affairs.

Focus of the Programme

5. The programme will be implemented mainly within the framework of the World Fisheries Conference's Programme of Action No. I - Planning, Management and Development of Fisheries. Resources are shared between assistance to Member Nations in the planning of fisheries management and development and support to international collaboration in fisheries, notably through FAO's regional fishery bodies. Responsibility for the execution of the programme is shared between the Fishery Policy and Planning Division (FIP) and the Regional Offices.
6. The programme concentrates on those aspects where the Organization has comparative advantages and special skills and experience, i.e., the planning of fisheries development, investment planning and appraisal, socio-economic aspects of small-scale fisheries, advice on management concepts and techniques, including systems for the monitoring, control and surveillance of fishing activities and special studies of national and regional fisheries. Direct support and advice is provided to field activities in matters relating to policy and planning. Continued priority is accorded to the development of training manuals and materials, and to the organization of training workshops and seminars.
7. The programme also provides the secretariat and administrative servicing of the Committee on Fisheries and of FAO's regional fishery bodies and their sub-regional committees and technical working parties. Work in this area is to be re-orientated in the light of the recommendations made by the Committee on Fisheries, at its Eighteenth Session in April 1989, on the role and functions of FAO's regional fishery bodies. The programme is further responsible for maintaining liaison and cooperation with other UN agencies and non-UN bodies concerned with various aspects of marine affairs and with international and regional organizations with specific or geographic interests in fisheries.
8. The work of the entire programme is closely linked with the activities undertaken by Member Governments, other development agencies and a wide range of organizations concerned with fisheries. Collaboration in applying concepts and practices in relation to planning fisheries

development and management and in the preparation of training materials, is maintained with regional institutions and academic bodies. Long-established contacts and joint activities with UN agencies such as Unesco/IOC, UNEP, UNDP, ILO and WFP are a feature of the programme. Collaboration is to be further strengthened with a number of NGOs involved in the fisheries sector, especially in the promotion of small-scale fisheries and fishermen's organizations.

Plan of Action

- Sub-programme 2.2.3.1: Fisheries Policy and Planning

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Training in Fisheries Development and Management Planning	398	104	502	22
02	Fisheries Development Planning	377	(39)	338	15
03	Fisheries Investment Planning and Appraisal	292	(15)	277	12
04	Management and Development of Small-scale Fisheries	171	0	171	7
05	Fisheries Management Issues and Options	336	(20)	316	14
06	Studies on World Fisheries Situation and Prospects	234	(30)	204	9
07	Technical Support to FAO Regional Fishery Bodies	291	0	291	13
08	General Support to Policy and Planning	193	0	193	8
Total		2 292	0	2 292	100
Cost Increases 1990-91 1990-91 Budget				345 2 637	

* Increase (Decrease)

9. The sub-programme comprises a wide range of activities designed to assist member countries in improving their capacities to plan the development and management of their fisheries. Responding to the critical need for developing countries to acquire the skills involved in fisheries planning, the main emphasis will again be given to training activities; an increased allocation is proposed, supplemented, where possible, by extra-budgetary funds. Building on the experience gained in organizing national and regional training courses in the 1988-89 biennium, training materials and manuals will be further refined and training workshops and courses organized on various aspects of fisheries development, management and investment appraisal. As a result of this upward adjustment, lower levels of allocations are proposed for other programme elements.
10. Advisory services on fisheries development planning, mainly through missions mounted on request of member countries, will include advice on planning and the associated institutional and administrative aspects of marine and inland water fisheries and aquaculture.
11. Direct advice through missions will also be provided to governments on investment opportunities in fisheries. In particular, assistance will be given in the identification, appraisal and planning of fisheries projects. Studies on relevant issues such as institutional credit, and other forms of financial support to artisanal fishermen, will be carried out.
12. The special problems involved in the development and management of small-scale fisheries, in particular the socio-economic aspects of artisanal fisheries and fishing communities, will be addressed through related studies and advice to member countries.
13. The question of fisheries management systems will be further addressed, including special studies of management concepts, issues and options. Advisory services will be provided, as an important part of this work, on systems for the monitoring, control and surveillance of fishing operations by both domestic and foreign fleets.
14. Studies on certain aspects of fisheries management and development, including the appraisal of trends in world fisheries and prospects for the future will be undertaken, chiefly within the framework of Organization-wide studies such as the State of Food and Agriculture. Attention will also be given to the maintenance and updating of the long-established and highly-valued Fishery Country Profile series, which now provides a brief but comprehensive review of the state and prospects of fisheries in some 140 countries.
15. Technical support to the FAO network of regional fishery bodies in the planning of fisheries development and management of fisheries will be maintained at the same level.
16. The element dealing with general support to policy and planning will be concerned primarily with a further review, to be presented to the Nineteenth Session of the Committee on Fisheries, of progress in implementing the Strategy for Fisheries Management and Development endorsed by the World Fisheries Conference. The element also encompasses activities relating to collaboration with and support for NGOs involved in fisheries.

- Sub-programme 2.2.3.2: International Coordination and Liaison

Programme Element Title	1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01 Global Fisheries Co-ordination	594	(9)	585	16
02 Regional Fisheries Co-ordination	2 836	27	2 863	77
03 International Collaboration and Liaison	215	39	254	7
Total	3 645	57	3 702	100
Cost Increases 1990-91 1990-91 Budget			523 4 225	

* Increase (Decrease)

17. This sub-programme covers three aspects of international cooperation in fisheries: the preparation for and servicing of the sessions of the Committee on Fisheries and its Sub-Committee on Trade; providing the secretariat, administrative support and policy guidance to FAO's network of regional fishery bodies; and liaison and collaboration with other international organizations and bodies concerned with fisheries and marine affairs.
18. The element for global fisheries coordination relates specifically to the Committee on Fisheries, the major international forum for the regular review by member countries of the state of world fisheries, its future prospects and the actions which might be taken individually or collectively to promote fisheries development and management. The organization and administrative servicing of one session of the FAO Committee on Fisheries and of its Sub-Committee on Fish Trade is scheduled with a virtually unchanged allocation.
19. In pursuance of the consistent recommendation by successive sessions of the Committee on Fisheries that the mechanisms for international collaboration should have high priority, the greatest part of the resources under the sub-programme is allocated to secretariat and administrative support and policy guidance to FAO's regional fishery bodies and their subsidiary committees and working parties, i.e.:
 - Fishery Committee for the Eastern Central Atlantic (CECAF);
 - Committee for Inland Fisheries of Africa (CIFA);
 - Commission for Inland Fisheries of Latin America (COPESCAL);
 - European Inland Fisheries Advisory Committee (EIFAC);
 - General Fisheries Council for the Mediterranean (GFCM);

- Indian Ocean Fishery Commission (IOFC);
- Indo-Pacific Fishery Commission (IPFC);
- Western Central Atlantic Fisheries Commission (WECAFC).

All these statutory bodies are scheduled to hold at least one session during the biennium and support will be provided to their subsidiary technical bodies. A modest increase of US\$ 27 000 is foreseen.

20. In order to respond to the urgent need to strengthen support to the FAO Fishery Committee for the Eastern Central Atlantic (CECAF), it is proposed to outpost a Senior Fishery Liaison Officer (P-5) for a period of two years to West Africa with specific responsibility for the servicing of CECAF and to promote regional collaboration in fishery development and management.
21. The third element in this sub-programme deals with collaboration with other international organizations and bodies concerned with marine affairs, such as the United Nations Secretariat, in respect of the Law of the Sea affairs and coastal area development; the Economic and Social Council (ECOSOC); IMO for control of vessel-borne pollution, safety of fishing vessels at sea and related subjects; Unesco/IOC for marine scientific research; ILO for training of fishermen; UNEP for the protection of environment, and the World Meteorological Organization (WMO). An increase of US\$ 39 000 is foreseen to enable FAO to further strengthen cooperation with these agencies and other international organizations concerned with marine affairs, including international fishery commissions.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit	
Global	1 792	RP	8 003	FI	7 335
Africa	2 500	Govt. Programmes	1 397	FIO	1 397
Asia and Pacific	2 094			Regional Offices	668
Near East	755				
Europe	731				
Latin America	1 528				
TOTAL	9 400		9 400		9 400

Programme 2.2.9 - Programme Management

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
2.2.9.1 Departmental Direction	754	0	150	904	8.0	0
2.2.9.2 Divisional Direction	3 856	19	912	4 787	74.0	0
2.2.9.7 Regional Offices	429	154	55	638	7.7	0
Programme 2.2.9 Total	5 039	173	1 117	6 329	89.7	0

* Increase (Decrease)

Focus on the Programme

1. This programme covers the immediate office of the Assistant Director-General, Fisheries Department, the offices of Division Directors, and the Departmental Management Support Unit. It also covers those parts of the offices of the Regional Representatives which are relevant to Major Programme 2.2: Fisheries. There are no significant changes at Headquarters. The increase under Regional Offices reflects a more accurate distribution of staff costs.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region	Fund	Unit
Global	1 783 RP	6 329 FI
Africa	1 826	Regional Offices
Asia and Pacific	1 053	
Near East	585	
Europe	166	
Latin America	916	
TOTAL	6 329	6 329

Major Programme 2.3 - FORESTRY

Long-term Trends, Goals and Strategies

1. More than 4 300 million hectares, or one third of the world's land area, is under forest cover, of which 2 500 million hectares in the tropics, almost exclusively in developing countries. These forests and woodlands are essential to the economic and social well-being of local populations, particularly in rural areas. Beyond the supply of wood products and fuelwood, forests benefit people through food and materials derived from the plants and animals of the forest and through the protection of the soil and water base. More than two thirds of the population in developing countries depend mainly on wood for their household energy needs. Forests also constitute a unique stock of valuable genetic resources and therefore a common heritage of mankind. Yet forests are being degraded or destroyed at an alarming rate.
2. Increasingly, fragile ecosystems such as tropical forests, arid zones, mountainous watersheds and their downstream plains, are threatened due to reduced soil protection resulting from the the destruction of the tree cover. The constant need for additional cropland has become the largest single cause of forest degradation. The destruction of the forest results mainly from the hunger for land of expanding populations, often the poorest, with no access to the inputs required to maintain or raise the productivity of their holdings. Additional damage is being caused by indiscriminate exploitation practices.
3. This tendency is most pronounced in the tropics, where more than 11.5 million hectares of forest land are being diverted to other uses every year, while less than 2 million hectares are planted. Often, the scarcity of good agricultural land and population pressure lead to the clearing of lands which are inappropriate for sustained agriculture. The remaining forest resources are under added pressure, particularly in terms of their capacity to provide fuelwood. Nearly half of the 2 000 million people in the developing countries, who rely on wood for energy, are already facing a deficit situation. The depletion of forest resources seriously compromises the ability of governments to achieve national goals for socio-economic development, and meet the immediate needs of their growing populations. At the global level, there is increasing evidence that deforestation is threatening the environment, endangering the stability of the earth's natural resource base - air, soil, and water.
4. The long-term goals of forestry should therefore be to raise the productivity of forests and increase their contribution to national welfare and development, in particular of rural communities, while ensuring the protection and conservation of this vital resource. The productive and protective aspects of forestry cannot be dissociated, as people will be committed to protect their natural environment only if they are convinced of the value of the resource and of its potential to meet their basic requirements. Conservation and development need to be pursued simultaneously.

5. A major constraint to the sustainable development of forestry in the third world is the weak institutional base and limited financial and manpower resources devoted to forestry research. Member Governments require assistance to strengthen national research capabilities and to give increased attention to training and extension. Member countries look to FAO to assist in identifying priority research needs; formulating national research programmes; establishing research facilities and training research personnel; and in channelling international funding to projects and programmes in forestry research.
6. Closely linked to the need for forestry research is the importance of preserving the vast capital of plant and animal genetic resources in tropical forests. The continued destruction of tropical forests could irremediably deprive humanity of potential new sources of fibre, food, medicine and other products.
7. In connection with the so-called "greenhouse" effect, forests exert an important influence on the global environment, particularly regarding the regulation of carbon dioxide in the atmosphere. As they grow, trees absorb carbon dioxide. However, with age, the rate of growth is reduced and therefore also the capacity for absorption. Hence, to maximize absorption, trees should be harvested and regenerated at the optimum point of their productive cycle. Thus, the managed utilization of forests for manufacturing durable wood-based products such as sawn timber and panel products (which would serve as a carbon repository), could ensure sustainable development in both the socio-economic and environmental sense.
8. The problems facing the forest sector cannot be solved by forestry and foresters alone. What is required is an interdisciplinary approach involving all factors of land-use planning and utilization - agriculture, livestock, energy, mining, infrastructure development, etc..
9. This approach is embodied in the Tropical Forestry Action Plan (TFAP). The Plan, first adopted by the Committee on Forest Development in the Tropics, and subsequently by the international community and in particular those agencies concerned with rural development, is the centre-piece of a coordinated effort to improve the situation of the tropical forests. The TFAP principles are framed to assist member countries in making full use of their forestry potential: e.g. to improve the lives of rural people; to increase food production; to improve methods of shifting cultivation; to ensure the sustainable use of forests; to increase supplies of fuelwood and the efficiency of its use; and to expand income and employment opportunities. More specifically, the Plan has five priority areas: forestry in land use; forest-based industrial development; fuelwood and energy; conservation of tropical forest ecosystems; and removal of institutional constraints impeding the conservation and wise use of tropical forests.
10. The TFAP approach implies a re-orientation of forestry policies and strategies. The traditional approach of protecting and utilizing forests independently of their surroundings is no longer appropriate. The challenges facing forestry development can only be resolved if all government departments concerned with land-use planning and development take a holistic view, and strive to harmonize policies and develop complementary strategies. However, action must not be limited to

governments alone. It is important to ensure participation by the private sector, and by the local people and the NGOs that represent them.

11. In line with the importance attached to comprehensive sector analysis within the framework of the TFAP, and to respond to the increasing requests from member countries for assistance in establishing sector priorities, the major programme will aim at strengthening country sector planning capabilities and sharpening the focus of planning activities. Furthermore, policy advice and institutional development will be closely integrated with this planning function.

Programme 2.3.1 - Forest Resources and Environment

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
2.3.1.1 Development and Management of Forests	454	49	63	566	2.8	19 454
2.3.1.2 Tree Improvement and Plantations	665	95	92	852	3.2	14 101
2.3.1.3 Conservation and Wildlife	871	(106)	94	859	3.5	13 391
2.3.1.4 Forest Food, Fodder and Fuelwood Systems	977	(218)	81	840	3.0	21 460
2.3.1.5 Tropical Forestry Action Plan	721	361	178	1 260	6.0	8 512
2.3.1.7 Regional Offices	800	126	140	1 066	12.5	0
2.3.1.8 Field Programme Support	894	161	251	1 306	16.0	2 580
Programme 2.3.1 Total	5 382	468	899	6 749	46.9	79 498

* Increase (Decrease)

Medium-term Objectives

1. Forests provide goods and services for local communities, raw materials for important industries, and protection of the soil and water resource base essential for sustained agricultural production. Multiple use of existing forest and wildlife resources needs to be pursued through comprehensive assessment and sound management. Work will continue on the maintenance of a global forest resources information system and on the transfer of knowledge in the application of remote sensing and of data-processing technologies to forest resources assessment. FAO will also put emphasis on the development of suitable forest, wildlife and wildland management systems, especially in tropical countries.
2. As natural forest areas will continue to be converted to agriculture and livestock production in developing countries, new forest resources need to be created to supply industry, to provide fuel and fodder, to control environmental degradation, to ease pressures on remaining forests and, more generally, to meet the needs for forest-based goods and services of increasing rural and urban populations. Most forestry activities will continue, therefore, to have a component of establishment and management of forest plantations, woodlots and trees in agroforestry systems. FAO must continue to provide advice to member countries on the choice of species and provenances, and support the supply of high-quality seeds and the application of tree improvement methods.
3. Forests contain a large part of the world's plant and animal genetic resources. In situ conservation of genetic resources will continue to be of major importance as a complement to ex situ conservation, both for forest species of present or potential interest, and for wild relatives of agricultural crops.

4. The threat to forests posed by fires, pests and diseases is increasing worldwide, especially where mixed natural forests are being replaced by more susceptible man-made monoculture plantations. Damage attributed to air pollution has spread over large forest areas, particularly in developed countries. Protection of forests is becoming a major concern for an increasing number of countries, which requires FAO to increase its activities in this field.
5. Population pressure in catchment areas calls for improvements in watershed management and rehabilitation, both for the benefit of upland communities and for the protection of agriculture and the quality of life downstream. More emphasis will have to be given to the analysis of upstream-downstream relationships, including mechanisms to ensure incentives and adequate financial resources for the conservation and development of the uplands, and foster people's participation in watershed management activities.
6. Forestry can make a decisive contribution to check and reverse the threat of desertification in dry zones. Support to member countries in arid zone forestry will continue to be provided in three directions: (i) increase of yields of wood and non-wood products and improvement of their utilization and processing; (ii) development of improved techniques for control of erosion, water conservation and harvesting, land restoration and revegetation; and (iii) information dissemination, training and extension, especially with regard to sand dune stabilization, windbreaks and shelterbelts, water harvesting and silvopastoral management.
7. The incorporation of trees into farming systems could permit stable and sustained food production on lands which otherwise would be unsuited. In addition to crops and animal products, these agroforestry systems provide fuelwood, and other wood and non-wood products, the utilization and processing of which are important sources of rural employment and income. In cooperation with Programmes 2.1.1 and 2.1.3 of the Agriculture Department, this programme will provide advice and support to member countries in the design and development of integrated agroforestry systems, particularly in drylands and mountainous areas.

Focus of the Programme

8. This programme aims at providing assistance to member countries in the development and conservation of their forest and wildlife resources. Greatest priority in the programme is given to the coordination of and support to the Tropical Forestry Action Plan for which a new sub-programme (2.3.1.5) is established. Specifically, the programme covers the survey and sustained management of existing natural forests; the establishment and management of plantations; the development and conservation of forest genetic resources; the conservation of forests and wildlands, particularly in mountainous areas and in dry zones; the management of wildlife and national parks; and the integration of forests and trees in land-use systems for food, fodder and fuelwood production.

9. The programme is managed by the Forest Resources Division with two of its three branches, the Forest Resources Development Branch and the Forest and Wildlands Conservation Branch, except for the new Sub-programme 2.3.1.5, which relates to the Tropical Forestry Action Plan, implemented by the TFAP Coordinating Unit under the direct supervision of the Head of the Department. Sub-programme 2.3.1.7 covers the activities of Regional Offices under the programme. Sub-programme 2.3.1.8 provides for support to the Field Programme.
10. Sound forest development must be based on the continuous assessment of forest resources at all levels, from the global through the regional and national to the local level. By virtue of its mandate, FAO is in a unique position to collect, analyze, interpret and disseminate information on forest resources worldwide. An important task will be to complete the re-assessment of tropical forest resources by the end of the 1990-91 biennium.
11. A very small proportion of tropical forests can be considered to be under sustained management in one form or another. Considerable efforts are needed towards the development of appropriate forest management systems in member countries, hence the great requirements for FAO's assistance. In this respect, cooperation has to be maintained with related international activities such as the research projects on the functioning of tropical forest ecosystems under the Man and the Biosphere (MAB) Programme of Unesco. The programme also includes servicing of the FAO Committee on Forest Development in the Tropics with the mandate to study and report on tropical forestry issues, and ensure harmonization of international cooperation in this field.
12. Building on its large and varied experience with plantation projects in many developing countries, FAO is in a good position to disseminate information on appropriate techniques of plantation establishment and management and to provide, in particular, guidelines on species/site matching. FAO should also continue its assistance to countries in the selection, procurement and exchange of seeds of the right species and provenances as well as its lead coordinating role at international level in tree breeding and in situ conservation of plant genetic resources. Close links are maintained with other international organizations, in particular through the Ecosystem Conservation Group (FAO, Unesco, UNEP, and IUCN). Two statutory bodies - the International Poplar Commission and the FAO Panel of Experts on Forest Gene Resources - are serviced within the framework of Sub-programme 2.3.1.2 to guide and coordinate activities of national and international institutes.
13. Demand from member countries for assistance in forest protection remains high as fires, pests and diseases are increasingly threatening forest resources worldwide. Most of this assistance is provided through field projects while Regular Programme activities cover training and dissemination of information. Particular attention will continue to be given to the prevention and control of forest fires in the Mediterranean area and to the techniques of controlled fires in tropical savanna woodlands.

14. The contribution of forestry to the rehabilitation and management of watersheds remains a central priority of this programme. Much has been done by FAO in training and dissemination of information on related technical and economic aspects. In future biennia, more attention will be given to social aspects, particularly to community participation, in cooperation with concerned national and international organizations.
15. Wildlife products can contribute significantly to food security. The African Forestry and Wildlife Commission (AFWC) and the Committee on Forestry (COFO) have requested FAO to give higher priority to wildlife management and utilization, particularly with regard to economic aspects and the contribution of wildlife to diet improvements and income generation for rural populations. FAO will cooperate with national and non-governmental institutions in the formulation of guidelines for wildlife and protected area management; the collection and dissemination of statistics on wildlife and wildlife products; and the publication of regional bulletins and support to networks.
16. Based on the experience acquired in the implementation of a large number of projects in the dry tropics and the North Africa and Near East Regions, FAO will continue to disseminate information in the form of manuals and audiovisual aids on the various aspects of arid zone forestry (dryland afforestation, sand dune stabilization, silvopastoral management, windbreaks and shelterbelts), and to support TCDC through sub-regional networks.
17. The integration of forests and trees with agriculture and livestock-raising, together with appropriate land evaluation and land-use planning techniques, are among the most important tools for efficient and sustained use of land resources. As FAO's mandate spans both agriculture and forestry, it is uniquely placed to assist member countries in these fields, in cooperation with other international organizations, such as the International Council for Research in Agroforestry (ICRAF) and concerned CGIAR centres. Action will take place through regional networks and publications on such subjects as improved forest fallows in shifting cultivation and successful agroforestry case studies.

Plan of Action

- Sub-programme 2.3.1.1: Development and Management of Forests

Programme Element Title	1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01 Tropical Forest Development	125	56	181	36
02 Electronic Data Processing in Forest Resources Development	85	(7)	78	16
03 Forest Resources Assessment	120	17	137	27
04 Remote Sensing in Forestry	91	(69)	22	4
05 Mangroves and Vulnerable Ecosystems	0	46	46	9
06 Support to Statutory and Advisory Bodies	33	6	39	8
Total	454	49	503	100
Cost Increases 1990-91 1990-91 Budget			63 566	

* Increase (Decrease)

18. The programme element on tropical forest development includes collaboration with national and international institutes, and the development of guidelines for practical forest management. Increased emphasis will be placed on management, domestication and sustained use of forest species leading to non-wood products, such as bamboo, rattan, tannins, resins, gums, fodder, fruits, nuts, etc., hence the increase in the budgetary allocation. An FAO forestry paper on multiple use forest management in Latin America, will be published, complementing similar work in Asia and Africa, completed in 1988-89.
19. Under electronic data processing in forest resources development, activities related to the mainframe and microcomputer versions of the FAO Forest Inventory Data Processing System (FIDAPS), will be phased out, and a generalized system for forest management will be developed and tested.
20. Regular Programme activities on forest resources assessment and monitoring are closely linked to the project "Tropical Forest Resources Assessment 1990", being carried out by the Department with trust fund support. Through close collaboration with JEUR, the results from the

assessment will be harmonized with information available from developed countries for a global review of the state of forests and forest areas, and prevailing trends.

21. For the sake of rationalization, part of the activities on land-use planning previously carried out under the programme element remote sensing and land evaluation in forestry, have been shifted to Sub-programme 2.3.1.4, leading to a decrease in allocation in the present element. Activities in remote sensing will focus on dissemination of information and transfer of know-how and technologies (SPOT, NOAA, AVHRR).
22. Mangroves and vulnerable ecosystems play an important role in many national economies. Threats to component species from a genetic point of view need to be combatted and specialized management systems need to be developed for their sustainable use. The allocation of US\$ 46 000 has been transferred from Sub-programme 2.3.1.4 and will be used to bolster work on inventory, mapping, management and conservation, carried out through research, pilot studies and networking of national institutes.
23. The programme element on support to statutory and advisory bodies covers technical servicing of the Tenth Session of the Committee on Forest Development in the Tropics, to be held in 1991.

- Sub-programme 2.3.1.2: Tree Improvement and Plantations

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Forest Plantations	160	11	171	23
02	Seed Procurement and Tree Improvement	225	62	287	38
03	Forest Genetic Resources Information	75	15	90	12
04	Support to Statutory and Advisory Bodies	205	(72)	133	18
05	Forest Protection	0	79	79	10
Total		665	95	760	100
Cost Increases 1990-91				92	
1990-91 Budget				852	

* Increase (Decrease)

24. The element on forest plantations comprises assistance to member countries in forest nurseries and the establishment and management of plantations. With an increased allocation, 1990-91 activities will include production of guidelines and software on species/site matching, with special attention to multipurpose species suitable for planting on difficult and marginal sites; and development of standardized but flexible "technical packages" aimed at facilitating plantation management and its timely execution (closely connected to the element on electronic data processing in Sub-programme 2.3.1.1).
25. The element on seed procurement and tree improvement, includes the conservation in and ex situ of forest and plant genetic resources; seed procurement handling and exchange; and tree improvement and biotechnologies in forestry. Collaboration with national institutes in seed procurement and exchange will continue, with special emphasis on the exploration, collection, evaluation, domestication and improvement of multipurpose species of value in rural development. Activities will include the development of a computerized information system on forest seed availability. The element, closely linked to activities in Sub-programme 2.3.1.1 and parallel efforts in the Agriculture Department, will receive an increase of US\$ 62 000, channelled to in situ conservation (pilot areas, research, raising of awareness) and support to national institutes in seed procurement, in accordance with the recommendations of the FAO Commission on Plant Genetic Resources and the FAO Panel of Experts on Forest Gene Resources.
26. The annual newsletter Forest Genetic Resources Information will continue to disseminate information on, inter alia, seed availability, results or indications from field evaluation trials, progress in conservation efforts and new technologies of improvement and breeding, including biotechnologies in forestry and their potential role in tree breeding.
27. The programme element related to support to statutory and advisory bodies, will receive a decreased allocation, since only one meeting of the Executive Committee of the International Poplar Commission (IPC) is planned during the 1990-91 biennium, the IPC itself and the FAO Panel of Experts on Forest Gene Resources having met the previous biennium.
28. In view of its growing importance, work on forest protection is introduced as a separate programme element. A new post of Forest Protection Officer is proposed. Activities will include training in forest fire management for temperate and Mediterranean climate areas; continuation of cooperation with JEUR on the evaluation of impact on wood production of forest damage attributed to air pollution; and a study on the relation between deforestation/reforestation and global warming of the atmosphere (the "greenhouse" effect). Assistance will also be given to member countries in the control and management of insect pests and diseases, with special emphasis on integrated control methods.

- Sub-programme 2.3.1.3: Conservation and Wildlife

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Watershed Management	79	62	141	18
02	Transfer of Conservation Technologies	282	(67)	215	28
03	Wildlife and Protected Area Management	110	38	148	19
04	Contribution of Wildlife to Food Security	135	27	162	21
05	Arid Zone Forestry and Desertification	140	(41)	99	13
06	Support to Statutory and Advisory Bodies	125	(125)	0	0
Total		871	(106)	765	100
Cost Increases 1990-91				94	
1990-91 Budget				859	

* Increase (Decrease)

29. Activities in this sub-programme relate to three of the major concerns of forestry in relation to the environment: watershed management and upland conservation; wildlife and protected area management; and forestry in drylands.
30. The programme element on watershed management provides support to the Working Party on the Management of Mountain Watersheds of the European Forestry Commission which is to hold its Seventeenth Session in Venice, Italy, and to three regional networks in Latin America, the English-speaking Caribbean and the Asia-Pacific Region. Assistance to the International Scheme for Conservation and Rehabilitation of Africa's lands will be provided through the IDWG on Environment and Energy. Extensive technical backstopping of the Field Programme and close interaction with the planned inter-regional trust fund project on community participation in watershed management will be required. Other activities include the completion of the FAO Watershed Management Field Manual.

31. The programme element on transfer of conservation technologies will concentrate on the development of the Forest and Wildlands Conservation Information System (FOWCIS) which could not be developed in the 1988-89 biennium because of shortage of resources. Another output will be the production of conservation booklets and audiovisual aids for extension and public education.
32. The programme element on wildlife and protected area management will continue to issue three regional bulletins (Africa, Asia, Latin America and the Caribbean), and to support two regional FAO/UNEP projects (Africa, Latin America and the Caribbean) and a regional network (Latin America and the Caribbean). Support will also be provided to the Working Party on Wildlife Management and National Parks of the African Forestry and Wildlife Commission. Cooperation will be maintained with international organizations involved in nature conservation and with the secretariats of the international conventions on species and ecosystems conservation. Activities will be started on the conservation of wild animal genetic resources. A manual on national park planning will be published.
33. The programme element on contribution of wildlife to food security will be increased in response to COFO recommendations. Work started in 1989 on economic aspects of wildlife products and on the contribution of wildlife to diet improvement and of income generation for rural populations, will be continued. Adequate collection of statistics on wildlife and wildlife products will be promoted. Guidelines will be issued on management of wildlife for rural development and on crocodile farming.
34. The programme element on arid zone forestry and desertification is reduced in order to permit increased support to field programmes. Support will be provided to the cooperative network of the CILSS countries, and the establishment of similar networks in IGADD and SADCC countries, and in Latin America and the Caribbean, will be sought. Liaison bulletins, such as the one already published for the CILSS countries, will be supported. Other activities will include training materials on sand dune stabilization, windbreaks and dryland afforestation; and publications on the role of trees and shrubs in erosion and desertification control, and on African Acacia species in dryland development. Activities which were included under the programme element support to statutory and advisory bodies, have been transferred to the respective substantive programme elements, i.e. watershed management and wildlife and protected area management.

- Sub-programme 2.3.1.4: Forest Food, Fodder and Fuelwood Systems

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Shifting Cultivation and Agro-Forestry	198	0	198	26
02	Geographic Information System	214	(15)	199	26
03	Mangrove Management	75	(75)	0	0
04	Diversified Mountain Economy Systems	115	(37)	78	10
05	Trees as Support to Agricultural Production in Arid Zones	115	(8)	107	14
06	Fuelwood Resources Development	260	(83)	177	23
Total		977	(218)	759	100
Cost Increases 1990-91				81	
1990-91 Budget				840	

* Increase (Decrease)

35. Work under this sub-programme will be carried out in close liaison with other sub-programmes directly related to sustainable development such as 2.1.1.1, 2.1.1.6 and 2.1.3.1. The focus is on agroforestry systems; land-use planning; geographic information systems, diversification of mountain economy systems, multipurpose trees and shrubs in agro-silvo-pastoral systems in arid zones; and fuelwood resources development.
36. The programme element on shifting cultivation and agroforestry will promote sustainable farming systems incorporating tree elements in peri-urban areas, mountain areas and semi-arid lands. Support will be given to regional networks in Asia and Latin America and the Caribbean. Guidelines on improved forest fallows in shifting cultivation will be published. A compilation of successful experiences in agroforestry will be completed. Close cooperation will be maintained with other technical units through interdepartmental working groups, in particular to develop rapid appraisal methods for land evaluation and land-use planning.

37. The programme element on Geographic Information System (GIS), with a slightly reduced allocation, represents the contribution of the Forest Resources Division to the further development of central GIS facilities and to the integrated database for regional and global analysis as well as to the support to member countries in GIS applications for national land-use planning.
38. The programme element on diversified mountain economy systems will be slightly reduced to allow for increased support to field programmes. In cooperation with the inter-regional trust fund project on community participation in watershed management, guidelines will be produced on monitoring and evaluation of upland conservation projects.
39. The programme element on trees as support to agricultural production in arid zones will include the publication of practical guidelines on grazing management in forest lands and the controlled use of fires in woodlands; and the production, in cooperation with the GII Division, of audiovisual aids on planting of multipurpose trees, silvopasture management and control of sand dune encroachment in the arid zones. Information will continue to be assembled and published on non-timber uses of trees and shrubs in dry areas of Africa and Latin America.
40. The decrease under the programme element on fuelwood resources development is also to allow for increased support to the Field Programme. Work started during the 1988-89 biennium on management of vegetation cover by local communities for fuelwood production will be continued, including the organization of training sessions at national level; the production of audiovisual aids for training and extension; and the publication of a guide on combretaceae as a source of biomass energy.

- Sub-programme 2.3.1.5: Tropical Forestry Action Plan

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Coordination of the TFAP Implementation	480	317	797	74
02	TFAP Information	241	44	285	26
Total		721	361	1 082	100
Cost Increases 1990-91 1990-91 Budget				178 1 260	

* Increase (Decrease)

41. This new sub-programme provides for coordination of the rising level of TFAP activities in developing countries. It also responds to the expectations for better visibility of the TFAP. A net increase of US\$ 361 000 is proposed to provide core resources for FAO to ensure its coordinating function for the implementation of the TFAP. Regular Programme resources are being complemented by extra-budgetary resources provided by several donor countries. This sub-programme acts as a catalyst to mobilize financial and human resources in support to TFAP implementation.

42. Responsibility for this sub-programme lies with the TFAP Coordinating Unit which includes one Coordinator and two Regional Advisers with secretarial support, in addition to whom three Forestry Officers are provided under a multidonor trust fund. Technical support to the TFAP is also contributed by the various units of the Forestry Department and other units of the Organization, such as the Investment Centre and the Agriculture Department.

43. The programme element on coordination of the TFAP implementation is to respond to requests by developing countries for assistance in translating the Plan into national level initiatives. Activities are also geared to maintaining effective communication with the international donor community and stimulating interest in supporting developing countries' initiatives. Progress in implementing the TFAP will be monitored.

44. The programme element on TFAP information will aim at better awareness and understanding of the objectives and potential of the TFAP in response to global concerns on tropical deforestation and of the need for developing countries to use rationally their forest resources. Information materials will be developed, both for policy makers and for the public at large.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit	
Global	2 143	RP	6 749	AGR	474
Africa	42 511	Govt. Programmes	37 677	FO	5 683
Asia and Pacific	13 133	Other TF	8 797	FOD	79 024
Near East	16 921	UNDP	32 265	Regional Offices	1 066
Europe	564	UNEP	474		
Latin America	10 975	WFP	285		
TOTAL	86 247		86 247		86 247

Programme 2.3.2 - Forest Industries and Trade

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
2.3.2.1 Development of Forest Industries	1 706	42	284	2 032	15.5	14 407
2.3.2.2 Trade and Marketing	368	92	99	559	6.2	3 980
2.3.2.3 Forest Harvesting and Transport	730	(195)	95	630	5.3	97
2.3.2.7 Regional Offices	393	(37)	70	426	4.9	0
2.3.2.8 Field Programme Support	611	(99)	122	634	7.6	1 350
Programme 2.3.2 Total	3 808	(197)	670	4 281	39.5	19 834

* Increase (Decrease)

Medium-term Objectives

1. The overall objective of Programme 2.3.2: Forest Industries and Trade, is to assist countries to achieve, at the same time, environmentally sound and sustainable utilization of forest resources, and social and economic benefits from forest-based enterprises and trade in forest products. The perception of socio-economic benefits is a critical element of successful programmes. The experience amply shows that forest resources can be managed and conserved only if local people are convinced that forest land is more valuable to them than if converted for other uses.
2. An important step is the establishment and development of small forest-based enterprises with direct benefit to the local population. These can be established with comparatively small capital outlay and, if well organized and institutionally supported, can provide secure employment and stable cash income. The potential of small-scale forest-based industries to provide employment opportunities for rural women is also particularly important.
3. As the complexity and size of forest-based industries increase, the range of beneficiaries is gradually expanded from local to national or sub-regional levels. Large-scale forest industries must be designed to ensure also social benefits at both local and national levels through sound planning and evaluation. The provision of assistance to Member Governments in this respect is therefore one of the main objectives of the programme.
4. Traditionally, forest industry has been concerned primarily with wood-based products - sawn timber, panels, pulp and paper, etc.. There is, however, growing recognition of the economic importance and potential of non-wood forest products - rattan, gum arabic, honey, resin, etc. - both for the local and the national economy. Development of forest industries, therefore, must take such products into account at the planning stage for the component aspects of harvesting, processing technology, marketing and trade.

5. The harvesting of forest products must be carefully planned so as to avoid negative impact on the environment. In addition, the raw materials obtained must be more fully utilized. The programme, therefore, aims at improved planning and management of harvesting operations, in order to reduce post-harvest residues in the forest and in the processing facilities; and increased harvesting and processing of lesser-known species and small-dimension timber.
6. Wood for energy, both for household and industrial use, continues to be a major requirement. Improved methods for conversion of wood into charcoal could reduce the overall fuelwood requirement for households and thus relieve pressure on existing resources. Where the available resource base permits the sustained use of wood as an industrial fuel, this can help to reduce dependence on fossil fuels. In addition to savings in foreign exchange, the replacement of fossil fuels with wood-based energy can contribute to the reduction of the excess carbon dioxide formed by the combustion of fuels that are not part of the natural carbon cycle. Sustained production of wood-based fuels for domestic and industrial use is, therefore, another important objective of the programme.

Focus of the Programme

7. The programme includes three sub-programmes on: development of forest industries; trade and marketing; and harvesting and transport. Former Sub-programme 2.3.2.4: Wood-based Energy Systems has been incorporated into Sub-programme 2.3.2.1. In most activities, emphasis is placed on the development of human resources through the preparation of training materials and the organization of training courses.
8. Responsibility for implementation rests with the Forest Industries Division (FOI) for Sub-programmes 2.3.2.1 and 2.3.2.3, whereas the responsibility for Sub-programmes 2.3.2.2 and 2.3.2.8 is shared between FOI and the Policy and Planning Service (FODP).
9. The programme is concerned with the development of all types of forest industries, regardless of raw material or product, size of operation or size of enterprise. Thus, it covers traditional wood-based products such as sawn goods, panels, pulp and paper and chemical conversion of wood in general, as well as non-wood based products such as rattan, bamboo, gums and latexes, medicinal plants and honey. It also includes wood-based energy for domestic and industrial purposes. Environmental considerations are an integral part of all activities. Increased attention is being placed on small-scale rural forest-based enterprises as a means of improving the socio-economic status of rural populations, and increasing their commitment to protecting and maintaining forest lands.
10. International trade in tropical forest products is of major importance to the economies of many developing countries. Improvements in the collection, analysis and dissemination of trade information, and strengthening of national marketing capabilities are pursued in cooperation with other international and intergovernmental organizations. Major activities relate to the analysis of trade developments and international approaches to trade policy.

11. Under harvesting and transport, the scope of activities has been widened to include non-wood raw materials. In addition, increased emphasis will be placed on environmentally-sound planning and management of harvesting operations and the reduction of post-harvest losses. Harvesting activities are closely integrated with those related to the development of forest industries, the selection of technologies, and the fuller utilization of available raw materials.
12. In the implementation of the programme, liaison is maintained with international organizations such as ATO, GATT, ILO, ITC, ITTO, OECD, UNCTAD and UNIDO.

Plan of Action

- Sub-programme 2.3.2.1: Development of Forest Industries

Programme Element Title		1988-89 Approved Budget	Programme 1990-91 Change *	1990-91 Budget	Percent of Sub- Programme
01	Appropriate Forest Industries	415	26	441	25
02	Development of Human Resources for Forest Industries	235	(24)	211	12
03	Wood Based Energy	674	(278)	396	23
04	Marketing of Forest Products	160	27	187	11
05	Support to Statutory and Advisory Bodies	222	(10)	212	12
06	Small Scale Rural Forest-based Industries	0	301	301	17
Total		1 706	42	1 748	100
Cost Increases 1990-91				284	
1990-91 Budget				2 032	

* Increase (Decrease)

13. The development of appropriate forest industries is of high priority among the elements of the sub-programme. Activities will continue to include assistance in the evaluation of forest industry proposals and advice in the selection of processing technologies. Computerization has greatly improved the preparation of techno-economic studies. The resources so released will permit increased emphasis on non-wood forest products.
14. The activities relating to wood-based energy, which were distributed under various elements in the 1988-89 Programme of Work and Budget, are now combined into one element. Activities will continue to focus on wood energy conversion systems, development of production methods for charcoal and use of wood for rural energy generation. The considerable reduction in the allocation (US\$ 278 000) is due to a large extent to internal shifts within the sub-programme to the new element: small-scale rural forest-based industries in order to better integrate energy-related activities with industrial and rural development.
15. Development of human resources for forest industries encompasses improved functional management of forest industry enterprises and training in forest industry planning, mainly through the preparation of training and information material to be used in training courses held in connection with field projects.
16. Marketing of forest industry products receives a modest increase. Forest product marketing practices in developing countries will be reviewed and the ongoing survey of training needs will be continued.
17. Under support to statutory and advisory bodies, two sessions of the FAO Advisory Committee of Experts on Pulp and Paper and one session of the FAO Committee on Wood-based Panel Products are planned.
18. A new element on small-scale rural forest-based industries has been introduced. Activities will cover basic technologies, promotional activities, development of extension services and institutional/organizational/managerial development. Charcoal production and rural energy will be significant components of this element.

- Sub-programme 2.3.2.2: Trade and Marketing

Programme Element Title	1988-89 Approved Budget	Programme 1990-91 Change *	1990-91 Budget	Percent of Sub- Programme
01 Monthly Bulletin	234	44	278	60
02 Trade Analysis	134	48	182	40
Total	368	92	460	100
Cost Increases 1990-91			99	
1990-91 Budget			559	

* Increase (Decrease)

19. The programme element monthly bulletin has been given an increased allocation and is directed towards improved information on the tropical timber trade, in a collaborative effort with the International Tropical Timber Organization (ITTO), ASEAN, the African Timber Organization (ATO) and UNCTAD.
20. The programme element on trade analysis has also been increased and will provide an information perspective on the development and outlook for trade in tropical forest products as a basis for advice and technical assistance to member countries. Cooperation will be pursued with regional and international organizations in the development of international approaches to trade policy.

- Sub-programme 2.3.2.3: Forest Harvesting and Transport

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Appropriate Wood Harvesting Systems	318	(214)	104	19
02	Improvement of Forest Resources Utilization	270	(61)	209	39
03	Development of Human Resources for Forest Harvesting	128	(26)	102	19
04	Support to Statutory and Advisory Bodies	14	(2)	12	2
05	Planning and Management of Forest Harvesting and Transport	0	108	108	20
Total		730	(195)	535	100
Cost Increases 1990-91 1990-91 Budget				95 630	

* Increase (Decrease)

21. The overall reduction in this sub-programme is partly due to the integration of activities with other elements of Programme 2.3.2, e.g., the elements for appropriate forest industries (non-wood products, reduction of residues), wood-based energy and small-scale rural forest-based industries under Sub-programme 2.3.2.1, and partly due to shifts made within the Major Programme 2.3.

22. In view of the considerable progress in the development of appropriate wood harvesting systems a reduction is possible under the corresponding element. New activities include the establishment of a database on forest harvesting equipment and the promotion of the use of draught animals in logging. An expert consultation on forest raw materials procurement systems is planned.
23. Despite the small reduction under improved utilization of forest resources, activities under this element include identification of residues, improved harvesting operations, forest utilization in the case of catastrophies and a review of log grading rules.
24. The element on development of human resources has been slightly reduced, as the global survey of training needs in developing countries, which was initiated during the 1988-89 biennium, is nearing completion. Other activities which aim at the development of human resources are a planned FAO/Austria Training Workshop on Planning and Management of Harvesting Operations in Steep Terrain, and a study on Heat Stress in Tropical Forestry.
25. Under the element support to statutory and advisory bodies participation in the work of the FAO/ECE/ILO Committee on Forest Working Techniques and Training of Forest Workers will be ensured.
26. Planning and management of harvesting and transport is a new element which highlights a shift in emphasis from the purely operational, technical aspects of harvesting and transport towards planning and management, with special consideration to environmental aspects and the involvement of rural people. Activities will include planning and management of small-scale harvesting operations with links to small-scale rural forest-based industries and non-wood products in Sub-programme 2.3.2.1. Other planned activities are the development of environmentally sound infrastructure for harvesting; compilation of cost information; and development of a model for the estimation of harvesting costs.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit	
Global	2 408	RP	4 281	FO	3 855
Africa	9 591	Govt. Programmes	5 497	FOD	19 834
Asia and Pacific	11 225	UNDP	13 957	Regional Offices	426
Near East	132	WFP	380		
Europe	304				
Latin America	455				
TOTAL	24 115		24 115		24 115

Programme 2.3.3 - Forest Investment and Institutions

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
2.3.3.1 Training and Institutions	753	201	173	1 127	9.7	9 641
2.3.3.2 Investment Planning and Statistics	1 629	82	305	2 016	18.0	1 116
2.3.3.3 Forest Policies and Information	2 171	(234)	317	2 254	7.0	292
2.3.3.4 Community Forestry Development	1 241	(137)	145	1 249	7.1	4 277
2.3.3.7 Regional Offices	1 107	(59)	175	1 223	14.4	0
2.3.3.8 Field Programme Support	658	(56)	138	740	8.7	1 304
Programme 2.3.3 Total	7 559	(203)	1 253	8 609	64.9	16 630

* Increase (Decrease)

Medium-term Objectives

1. The changing and increasingly-complex demands that are being placed upon the forestry sector, as well as closer relationships with other sectors of national economies, require that policies and institutional mechanisms be continuously adapted and strengthened. Improving the contributions of the sector to rural and national development will depend in large measure on strengthening national capabilities to analyze and formulate long-term plans in line with the time scale of the sector, to improve the ability of national and local institutions to implement forest policies and programmes, and to generate investment in forestry activities. But it will also depend on the capacity of the sector to generate increased benefits for rural people, by ensuring their closer involvement in the management and use of forest resources. People's participation in forestry and the development of income generation from forestry activities are essential to alleviate pressures leading to the destruction of forest resources and to help solve the food security problems which lead to these pressures. The orientations of this programme are in consonance with the strategies and approaches of the Tropical Forestry Action Plan, e.g. the need for reorienting forest policies, strengthening institutional frameworks, raising current levels of investment, and stimulating the wide participation of rural people in forestry activities.
2. Accordingly, one of the main objectives of the programme remains the elimination of the institutional weaknesses which hamper the performance of the sector and its capacity to meet growing and changing needs. Particular importance will continue to be placed on improving the human resource base through training and extension, but also on strengthening forestry research capabilities. There is a constant requirement to stimulate and facilitate the involvement of rural institutions and local organizations in forestry activities.

3. An adequate information base is indispensable for policy formulation and investment planning. The objectives will be to further international cooperation in developing forestry statistical information, particularly in the context of the World Agricultural Information Centre (WAICENT) project, and to provide analyses of prospective developments in supply, demand and trade for forest products. Particular importance will be attached to developing suitable information packages and planning approaches for sector analysis with due consideration to intersectoral linkages, in support of the implementation of the Tropical Forestry Action Plan at country and regional levels. Emerging issues for forestry and forest industries will be further studied, with particular attention to the interface with general development policies and their implications for forest resources conservation and use. Information material will continue to be prepared and disseminated for policy-makers, the forestry profession, and the public, in order to raise awareness of the problems, and the sector's potential contribution to development.
4. In order to help rural people combat the pressures leading to the degradation of forest resources, it is imperative that they obtain the fullest benefits from these resources through direct participation in their management and use. Another main objective of the programme will therefore be to establish sufficient understanding of socio-economic perspectives and needs of rural people in relation to forestry, and to develop further suitable approaches and methods to involve them actively in self-sustained forestry activities for their own benefit. Particular attention will be devoted to the relationships between forestry and food security, and to the identification of those groups largely dependent on trees and forests for their food security. Work will continue on assessing the costs and benefits of forestry activities from the perspective of rural people and on exploring suitable ways of involving them at the early stage of design and decision-making in forestry activities. The role and particular needs of women in relation to forestry will continue to receive attention.

Focus of the Programme

5. The scope of the programme is to assist in strengthening the institutional policy and planning and priority-setting framework for the forestry sector to formulate long-term action plans and to translate these into effective programmes. In doing so, the programme aims at accelerating the reorientation of forest policies and institutional mechanisms and skills to extend and support the involvement of local people in forestry and to mobilize the much higher investment levels needed to sustain the contribution of forestry to development. The programme also provides information on current production, trade and consumption of forest products and on their prospective development as a basis for long-term policy formulation, and for planning.
6. Responsibility for the implementation of Sub-programme 2.3.3.1 is shared between the Policy and Planning Service (FODP) and the Forest Resources Division (FOR); for Sub-programmes 2.3.3.2 and 2.3.3.4, the

responsibility rests with FODP, whereas the responsibility for Sub-programme 2.3.3.3 is shared between FODP and the immediate office of the Assistant Director-General, FO.

7. An important focus of the programme is to assist developing countries in strengthening their institutional capabilities for forestry development and their absorptive capacities for technical assistance. An increasing number of developing countries are reviewing their organizational structures for forestry, updating their forest policies and legislation, reorganizing forestry and forest products research and, in particular, strengthening their forestry education, training and extension systems. They look to FAO for the required external assistance. Activities relating to forest workers are intended to supplement programmes being conducted by the ILO.
8. Maintenance, improvement and dissemination of basic statistical information on the forestry sector, and on the development of perspectives for the future are an important component of this programme. This is based on close collaboration with national forestry statistical and planning organizations and includes training and support to develop national capability. The results are widely disseminated to governments, national institutions and international organizations, in published form and in special extracts and computer-readable versions. In particular, these data are the basis for series on forestry, forest products and forest industries published by the United Nations and other international organizations (e.g. United Nations, Unesco, UNCTAD, and the World Resources Institute). An important function is to provide information support to the Field Programme and the Tropical Forestry Action Plan. The expansion and consolidation of the information base in the forestry sector will take account of work on forestry sector planning and on assistance to country forestry sector reviews particularly within the framework of the TFAP.
9. Work in forestry policies and information is intended to generate improved understanding of the factors that condition forestry-based development and to facilitate its translation into specific policy measures. This involves analysis of emerging issues (technical, institutional, socio-economic) in forestry and forest industries sectors, particularly with regard to their policy implications. These analytical activities are incorporated into the overall programme of work of the Forestry Department and support discussion of policy and related issues at sessions of statutory bodies. Information of policy significance, and data which can influence and assist in policy formulation, are disseminated widely to institutions and individuals in member countries, as well as to interested organizations.
10. The programme also aims at improving the understanding of the socio-economic importance of trees and forests for local people and developing strategies and methods to extend and strengthen their participation in forestry activities from which they are the direct beneficiaries. The programme thus promotes an increased integration of forestry into local development and community welfare, through activities which can enhance the contribution of trees and forests to meeting the needs of rural communities - food, fuel, raw material, fodder, fertilizer - and improving the quality of life. The activities

carried out in this regard directly support the efforts of member countries to promote social/community forestry. The Special Action Programme: "Forests, Trees and People", being implemented with support from SIDA, is an important component of the programme.

Plan of Action

- Sub-programme 2.3.3.1: Training and Institutions

Programme Element Title		1988-89 Approved Budget	Programme 1990-91 Change *	1990-91 Budget	Percent of Sub- Programme
01	Promotion of Forestry Education Development	155	31	186	19
02	Strengthening Forestry Institutions	145	14	159	17
03	Forestry Extension and Public Education	118	61	179	19
04	Strengthening National Forestry Research Capabilities in Developing Countries	105	42	147	15
05	Improvement of Forestry Policies and Legislation	144	48	192	20
06	Support to Statutory and Advisory Bodies	86	5	91	10
Total		753	201	954	100
Cost Increases 1990-91				173	
1990-91 Budget				1 127	

* Increase (Decrease)

11. The programme element on promotion of forestry education development will concentrate on training of forestry teachers to improve pedagogic and technical competence, based on recent technological advances in forestry and forest products processing as well as on educational and behavioural sciences.
12. Work on strengthening forestry institutions will include promotional activities on the one hand, and on the other hand, a study of economic and financial instruments for the development of forestry and assistance on institutional arrangements at country level for improving the cooperation between forest services and local organizations, in accordance with the TFAP principles.

13. Work on forestry extension and public education will be strengthened. Emphasis will be on the implementation of guidelines for increasing public and political awareness of the importance of forests and forestry, including meetings at regional level on the subject. A seminar on extension techniques for French-speaking countries in Africa will be organized. The introduction of forestry and environmental concepts in primary and secondary education as well as forestry concepts in agricultural and rural extension curricula will be further promoted.
14. The programme element on strengthening national forestry research will receive a net increase in resources to reinforce national forestry research institutions and capabilities. A new Senior Forestry Research Officer post is proposed. Emphasis will be on the institutional and organizational aspects of forestry research and on ensuring close links with national and international research institutions and organizations. The World Compendium of Forestry and Forest Products Research Institutions will be updated and a manual on the planning and management of forestry and forest products research will be prepared.
15. The element dealing with improvement of forestry policies and legislation will also receive a net increase. Activities will include an analysis of forestry policies in the Near East; a study in collaboration with the Legal Office on forest use from the legal and technical points of view; and support to TFAP implementation through the identification of required policy reorientations or changes.
16. The report of the Fifteenth Session of the FAO Advisory Committee on Forestry Education will be published under the element dealing with support to statutory and advisory bodies. Preparations will be made for the Sixteenth Session of this Committee.

- Sub-programme 2.3.3.2: Investment Planning and Statistics

Programme Element Title		1988-89 Approved Budget	Programme Change *	1990-91 Budget	Percent of Sub- Programme
01	Analytical Studies	525	12	537	31
02	International Statistics of the Forestry Sector	700	178	878	51
03	Forestry Development Planning	159	96	255	15
04	Planning for Fuelwood	229	(229)	0	0
05	Support to Statutory and Advisory Bodies	16	25	41	2
Total		1 629	82	1 711	100
Cost Increases 1990-91 1990-91 Budget				305 2 016	

* Increase (Decrease)

17. The programme element on analytical studies concentrates on methodologies and the development of common approaches, including for the involvement of the private sector, to gain fuller understanding of the factors underlying forestry development. Planning methodologies will be developed, based on the extended information from the 1990 Assessment of Tropical Forest Resources Project to permit a major review of medium-term perspectives for the sector.
18. The programme element dealing with international statistics will continue collecting and disseminating information on the state of forest resources, their role in the economy and in environmental conservation; and their contribution to the well-being of national communities and to foreign trade. This information is to be fully integrated into the World Agricultural Information Centre and is assembled in collaboration with national institutions. The element also supports the establishment of common standards, the exchange of technology in data collection and training courses. The preparation of country statistical profiles will be strengthened in support of TFAP. A training seminar on forestry statistics will be held for French-speaking countries in Africa and a manual on international forestry statistics will be completed and published. The increased resources for this element take account of the incorporation of planning activities related to fuelwood.
19. Forestry development planning will continue to provide analytical support to the Tropical Forestry Action Plan, particularly to country forestry sector reviews and to the formulation of action plans. In view of the special importance of social and environmental considerations in forestry, this programme element will develop social and environmental impact assessment methodologies and promote their wide application.
20. The element support to statutory bodies includes the preparation of policy papers for statutory meetings and the contributions on the forestry sector to Organization-wide studies or publications such as the State of Food and Agriculture (SOFA) and the Commodity Review and Outlook (CRO).

- Sub-programme 2.3.3.3: Forest Policies and Information

Programme Element Title	1988-89 Approved Budget	Programme 1990-91 Change * Budget	Percent of Sub- Programme
01 Forest Policy Analysis	361	(144)	217 11
02 Information Materials and Services	950	(44)	906 47
03 Support to Statutory and Advisory Bodies	860	(46)	814 42
Total	2 171	(234)	1 937 100
Cost Increases 1990-91			317
1990-91 Budget			2 254

* Increase (Decrease)

21. Staff time devoted to departmental programming activities which were previously accounted for in this sub-programme has been shifted to Programme 2.3.9 for consistency. This shift accounts for a large share of the reduction of resources.
22. The element on forest policy analysis, will focus on the understanding of the impact of government policies external to the forestry sector, on the conservation and management of forest resources. For instance, the effects of fiscal as well as monetary policies will be analyzed as well as the development linkages of forestry activities.
23. The element dealing with information materials and services, is of a continuing nature aiming at Member Governments, international and national bodies and the media. Eight issues of the quarterly journal Unasylva are planned. Information support to the TFAP is expected to benefit from extra-budgetary resources.
24. Servicing of statutory and advisory bodies is also of a continuing nature. Eight sessions of FAO statutory bodies dealing with forest matters will be held during the biennium: Committee on Forestry (COFO); African Forestry and Wildlife Commission (AFWC); Asia-Pacific Forestry Commission (APFC); Committee on Forest Development in the Tropics (CFDT); European Forestry Commission (EFC); Latin American Forestry Commission (LAFC); Near East Forestry Commission (NEFC); North American Forestry Commission (NAFC); and the AFC/EFC/NEFC Committee on Mediterranean Forestry Questions, "Silva Mediterranea". The background documents for these statutory meetings will reflect the trends and complex nature of policy issues facing the sector.

- Sub-programme 2.3.3.4.: Community Forestry Development

Programme Element Title	1988-89 Approved Budget	Programme 1990-91 Change * Budget	Percent of Sub- Programme
01 Promotion and Coordination of Participatory Forestry Activities	415	(11)	404 37
02 Forestry and Food Security	167	15	182 16
03 Rural Employment and Income from Forest-based Enterprises	174	(174)	0 0
04 Wood Energy Programme Development, Coordination and Liaison	220	(105)	115 10
05 Participatory Approaches to Fuelwood Projects	265	(128)	137 12
06 Decentralized Forest Planning	0	266	266 24
Total	1 241	(137)	1 104 100
Cost Increases 1990-91			145
1990-91 Budget			1 249

* Increase (Decrease)

25. The element on promotion and coordination of participatory forestry activities is the largest in the sub-programme and will continue to support the Special Action Programme: "Forests, Trees and People". The objective is to increase benefits to rural people through community forestry activities. Guidelines for integrating women into forestry planning and project implementation will be tested and applied. Particular attention will be given to the integration of community forestry and WCARRD principles in TFAP sector reviews and action proposals.
26. The element on forestry and food security will be orientated towards developing an information base on the role of trees and forest resources in food security. Work will continue on analyzing the issues involved in managing forests and trees for multiple purposes including food production.
27. Information gathering to generate a socio-economic database on rural employment and income from forest-based small-scale enterprises has been completed and further activities are being included in Sub-programme 2.3.2.1. The corresponding resources are transferred to a new programme element on decentralized forestry planning.

28. The wood energy programme development activities are related to the implementation of the Nairobi Programme of Action on New and Renewable Sources of Energy and to the TFAP. The stage has been reached where successes and failures and the experience to date in addressing fuelwood shortages must be critically analyzed for future programme development. The reduction will allow transfer of resources to the new element on decentralized planning.
29. The element on participatory approaches to fuelwood projects will complete the series of training activities on planning self-help fuelwood projects which were carried out in the previous biennia. A shift is made to the new element on decentralized forestry planning, under which work related to self-help fuelwood projects will continue.
30. The new element on decentralized forestry planning will develop ways to ensure the fullest participation of rural people and local communities in the design and decision making of woodland management and other forestry-based activities. This new element will build on past work on participatory approaches to fuelwood projects and strengthen people's participation at decentralized planning levels.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit	
Global	3 791	RP	8 609	AGO	575
Africa	8 182	FFH/AD	20	FO	7 386
Asia and Pacific	7 861	Govt. Programmes	7 864	FOD	16 055
Near East	996	UNDP	8 461	Regional Offices	1 223
Europe	773	WFP	285		
Latin America	3 636				
TOTAL	25 239		25 239		25 239

Programme 2.3.9 - Programme Management

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
2.3.9.1 Departmental Direction	606	212	198	1 016	10.9	0
2.3.9.2 Divisional Direction	3 102	200	783	4 085	61.6	0
2.3.9.7 Regional Offices	538	168	90	796	7.0	0
Programme 2.3.9 Total	4 246	580	1 071	5 897	79.5	0

* Increase (Decrease)

1. This programme consists of three Sub-programmes covering the immediate office of the Assistant Director-General, Forestry Department, the offices of the Division Directors at Headquarters, the departmental Management Support Unit, and those portions of the offices of the Regional Representatives which are applicable to Major Programme 2.3: Forestry.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region	Fund	Unit
Global	1 437 RP	5 897 FO
Africa	1 674	Regional Offices
Asia and Pacific	1 559	
Near East	395	
Europe	199	
Latin America	633	
TOTAL	5 897	5 897

Chapter 3-DEVELOPMENT SUPPORT PROGRAMMES

SUMMARY OF ESTIMATES BY PROGRAMME (\$000, All Funds)

		Regular Programme							
		1988-89		1990-91		Cost	1990-91	Extra	Total
Major Programme/Programme		Approved Budget	Programme Change*	Base	Cost Increase	1990-91 Budget	Budgetary Funds	1990-91	Funds
3.1	<u>Field Programme Liaison and Development</u>	5 766	0	5 766	1 108	6 874	10 444	17 318	
3.2	<u>Investment</u>								
3.2.1	FAO/World Bank Cooperative Programme	5 868	(428)	5 440	843	6 283	17 600	23 883	
3.2.2	Investment Support Programme	13 269	0	13 269	1 947	15 216	0	15 216	
3.2.9	Programme Management	1 981	0	1 981	375	2 356	0	2 356	
	Major Programme 3.2 Total	21 118	(428)	20 690	3 165	23 855	17 600	41 455	
3.3	<u>Special Programmes</u>								
3.3.1	Freedom-from-Hunger-Campaign/ Action for Development	1 324	0	1 324	190	1 514	355	1 869	
3.3.2	André Mayer Fellowships	398	0	398	36	434	0	434	
	Major Programme 3.3 Total	1 722	0	1 722	226	1 948	355	2 303	
3.4	<u>FAO Representatives</u>	47 651	428	48 079	7 133	55 212	3 012	58 224	
3.9	<u>Programme Management</u>	820	0	820	152	972	1 051	2 023	
CHAPTER 3 TOTAL		77 077	0	77 077	11 784	88 861	32 462	121 323	

* Increase (Decrease)

Major Programme 3.1 - FIELD PROGRAMME LIAISON AND DEVELOPMENT*

Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Approved Budget	Work Years	Extra- Budgetary Funds
3.1.0 Field Programme Liaison and Development	5 766	0	1 108	6 874	62.0	10 444
Major Programme 3.1 Total	5 766	0	1 108	6 874	62.0	10 444

* Increase (Decrease)

Nature of the Programme

1. Technical cooperation activities at country and regional levels, mostly financed from extra-budgetary sources, form an integral part of the Organization's overall programmes. The volume of such cooperation has increased continuously, as have the requirements of member countries. Total FAO project delivery reached US\$ 341 million in 1988, the highest level so far in nominal terms.
2. This major programme covers wide-ranging activities to develop Field Programmes responding to the priorities of individual countries and consistent with the Organization's policies, strategies and priorities. The major programme's main focus is on mobilizing resources for field activities, taking into account the diverse criteria of various funding sources.
3. The main functions consist of programming, monitoring and ensuring follow-up and feedback from field activities. The whole field programme cycle is thus covered, starting from the identification of project ideas, through the formulation of specific projects, their appraisal and, once finally approved by recipients, submission to potential funding sources for approval, as well as the designation of the operations units for implementation. Subsequently, overall monitoring is ensured during implementation and follow-up on completed field activities as well as dissemination of lessons learnt.
4. The major programme is responsible for the elaboration of FAO's policies concerning field operations, involving both information and analytical work. This includes the elaboration of procedures and guidelines, the analysis and circulation of information and documentation and the provision of support services. It also requires close relations with other agencies and participation in inter-agency fora dealing with field activities.

* formerly "Field Programme Planning and Liaison"

5. The special guidelines which are developed within FAO as well as in the UN system to ensure adequate attention to concerns of global importance, such as environment, integration of women, people's participation, etc. are also to be promoted and their application monitored in qualitative and quantitative terms. The major programme administers the TCP, the network of FAO Representatives and the Associate Professional Officers Scheme. It also ensures coordinated FAO technical support to WFP projects, provides a focal point for TCDC and coordinates and monitors action on field security matters.
6. As most of the Organization's field activities are financed by extra-budgetary sources, they constitute tripartite undertakings. Accordingly they require continuing dialogue and effective liaison among all parties concerned, including recurrent, extensive consultations with representatives of funding sources. Regular reviews and consultations are arranged with UNDP and with representatives of governments and funding institutions interested in supporting FAO Trust Fund programmes. The major programme also ensures a close link between investment and technical assistance activities.
7. While the overall nature and the medium-term objectives of the major programme remain basically unchanged from one biennium to another, the substantive work carried out in each biennium needs to be adjusted to prevailing and emerging needs, and the changing situations and requirements of developing countries. Hence, during the biennium several improvements will be introduced selectively and progressively, in a number of areas covered by the major programme. For instance, a project appraisal group and a team of project formulators will be set up in order to systematically enhance project quality, which is a continuing major concern to FAO's Governing Bodies.
8. Moreover the "programme approach" will be reinforced by inter alia, strengthening country/regional intelligence and carrying out in-depth country reviews, taking account of each country's policies and priorities as well as FAO's global priorities and strategies. These activities are expected to lead to more comprehensive planning, greater complementarity among disciplines and a higher degree of integration between technical assistance and investment, and to improved monitoring of field activities. The functioning of the FAO Representations will also be kept under constant review.

Medium-term Objectives

9. The following objectives will be actively pursued:
 - (a) providing assistance to governments in assessing their technical cooperation requirements in accordance with national development priorities for agriculture, fisheries, forestry and rural development, as well as taking into account global developments and external funding possibilities;
 - (b) monitoring changing technical assistance requirements in different regions and sub-regions;

- (c) in close association with technical and other units concerned, as well as with the FAO Representatives, identifying and pre-appraising potential technical cooperation projects; initiating and coordinating their detailed formulation; undertaking final appraisal; monitoring overall progress and effectiveness of FAO's field programmes under all sources of funds; maintaining regular liaison with donor governments and agencies supporting the FAO field activities, and in general mobilizing resources for external development assistance to member countries' programmes for agriculture, forestry, fisheries and rural development;
- (d) improving internal appraisal and monitoring procedures, with the active involvement of FAORs and other FAO units;
- (e) developing computerized information systems in support of the above;
- (f) formulating overall policies on operational activities and contributing to major documents such as the Review of Field Programmes;
- (g) administering the TCP, in particular by receiving, appraising and processing government requests and monitoring implementation;
- (h) supporting the network of FAO Representations, particularly by providing the management support and logistic services to country offices, and maintaining liaison with Regional Offices;
- (i) coordinating, consolidating and monitoring FAO's technical inputs and services to the development and implementation of WFP projects;
- (j) promoting TCDC activities through technical cooperation projects specifically designed for this purpose and monitoring FAO's field activities suitable for the application of TCDC and ECDC approaches;
- (k) increasing the utilization of national capacities in project development and implementation.

Plan of Action

10. The main activities will basically be in line with the above medium-term objectives and reflect the changes to be introduced during the 1990-91 biennium. In view of the continued increase in the demands of developing countries for technical assistance in the agricultural and food-related sectors, the mobilization of extra-budgetary resources from UNDP as well as Trust Fund donors will remain the primary concern.
11. The network of FAO country offices has made a positive impact on the development of FAO's field programmes. Building on this, further support will be given to FAO Representations in order to maximize their contribution to both the Regular and Field Programmes.

12. The promotion of TCDC and its reflection in FAO technical cooperation projects will be given continued attention, through enhancing the sharing of capacities and resources available in developing countries. The trend of increasing involvement of governments in the implementation of projects, through the appointment of national project coordinators and the recruitment of national consultants and experts, will require new approaches and adapted procedures.
13. The strengthening of the capacity of this major programme in its overall monitoring responsibility for FAO field activities will be pursued through streamlining of procedures and other improvements.

- Liaison Activities

14. These activities are of a continuing nature, covering recipient countries, funding sources, other agencies and organizations involved in development assistance. They also include coordination within the Organization on all matters related to field activities. Besides Headquarters, they closely involve country and Regional Offices. The principal aim is to foster a climate of fruitful cooperation among development partners and to make optimal use of resources and competences, both in recipient countries and within the donor community.
15. In support of such liaison activities, a booklet will be prepared on "what FAO can offer" as a development agency and adviser to governments and funding sources. The booklet will be widely circulated among governmental and non-governmental institutions as well as the private sector involved in development activities.
16. The liaison with funding sources is basically the role of Headquarters, but also increasingly of the FAOR at the country level, in particular with UNDP, both in the formulation and monitoring of UNDP country programmes, as well as in processing of projects within the delegated approval authority of UNDP Resident Representatives. Particular emphasis will be put on the following two areas:
 - (a) a systematic review - in collaboration with other concerned units at Headquarters - of information received from multilateral and bilateral development agencies relating to FAO field programme development. This review will cover mainly policy issues and operational matters, for example on such subjects as TCDC/ECDC, environment, women in development, poverty alleviation, people's participation, fourth UN Development Decade, New Dimensions, etc.. A synthesis will be made and disseminated within the Organization.
 - (b) resource mobilization, in particular for FAO priorities and Special Action Programmes. For this purpose, a number of briefing sessions will be organized for donors and financing institutions on selected FAO priorities and/or Special Action Programmes in collaboration with the technical units concerned. The reports of such sessions will be circulated to FAORs for follow-up with governments and local representatives of donors and financing institutions. These activities are expected to facilitate the identification and formulation of specific programmes and projects for external assistance.

17. In addition, close contacts will be maintained with international and regional financing institutions, in collaboration with the Investment Centre, to mobilize resources for technical assistance in support of investment activities. For this purpose, it is envisaged to have annual review meetings.
18. In-house liaison will continue to comprise a broad range of activities:
 - (a) keeping abreast of policies and procedures of major funding sources (priority areas of interest, countries of concentration, etc.); disseminating available information to FAORs and units involved in developing field activities;
 - (b) developing a comprehensive Field Programme Manual to consolidate rules, regulations and procedures governing field activities. Staff training and central support services will be provided for the sound application of procedures;
 - (c) contacts with technical and operations divisions for the identification, formulation and appraisal of projects. Attention will be given to the timely finalization of project documents and to improving their quality. The format of project documents will be further standardized by applying the new UNDP format, as far as possible, to other projects;
 - (d) support to FAORs through regular briefings on developments within the House (newsletter) and systematic follow-up of issues raised by them in their periodic reports;
 - (e) an inspection system for FAO Representations, to be established for systematic monitoring and constant review of their functioning. Staff temporarily stationed at Headquarters between field assignments would be employed as much as possible for this task;
 - (f) ensuring, as requested by concerned governments and in collaboration with other units in the Organization, the preparation of documents for aid coordinating activities, such as UNDP Round Tables and World Bank Consultative Group meetings; preparation of country briefs for senior management, as well as coordination of FAO's inputs into regional action programmes, such as UN/PAAERD;
 - (g) support to the Field Programme Committee, in particular for analyzing issues, preparing background documents and ensuring follow-up of decisions.

- Programme Development

19. Programme development will basically involve:
 - (a) promoting, in collaboration with other FAO programmes, a more systematic and consistent "programme approach", which would integrate the country's needs, development objectives and priorities; FAO's own policy and priorities; the criteria of funding etc.. An increasing number of requests is expected to be received from governments, as well as funding sources, to field missions for sector/sub-sector reviews, programming - especially in connection

with UNDP's Fifth Country Programme Cycle - as well as for project identification and formulation. Such missions will aim at the application of a programme approach to FAO development support efforts and are expected to be financed mostly by extra-budgetary resources as well as by TCP;

- (b) establishing inter-divisional country task forces, on a selective basis, for programme development and monitoring. This activity will be connected with the in-depth country reviews mentioned below;
- (c) improving country and inter-country intelligence. This activity requires inter alia to keep updated information on the political, socio-economic and agricultural situations and development programmes of respective countries or regions as well as on completed, current and planned FAO activities. It will also cover information on assistance provided by other external sources. FAORs' periodic reports, UNDP Resident Representatives' and UN Resident Coordinators' annual reports as well as other relevant internal documents such as project progress and terminal reports, briefs and mission reports will be extensively used for this purpose. This basic information will be systematically compiled.

Additional, more detailed country intelligence material, including information from other agency representations and local offices of donors, will be maintained in FAO Representations;

- (d) Keeping and updating a portfolio of viable projects. Summaries of viable project ideas and requests, will be maintained on the divisional computerized information system and be made available, on request, to those interested;
- (e) Ensuring in-country pre-appraisal of project requests and ideas by FAORs. A follow-up system will be instituted to ensure that FAORs systematically review the project requests/proposals and pre-appraise them.
- (f) Enhancing DDF's role in project formulation with a view to improving the quality of projects. Specific guidelines will be prepared for the use of DDF officers on the project review and formulation process, including a standard procedure to compile the results of the unit's review of specific project requests/proposals in an "analytical memorandum". Such memoranda will primarily deal with non-technical aspects of projects, such as their justification and agreement with both the country and FAO's priorities; implementation modality; local institutional and financial capacities; project beneficiaries; related external assistance; likely funding sources; format requirements, etc..

It is envisaged to establish a team of formulators within DDF to provide, on request, advice of a non-technical nature to the lead technical units responsible for project preparation, as well as to DDF units in the scrutiny of formulated projects. The objective is to ensure high quality standards in project documents, in terms of design, content and presentation;

- (g) It is also envisaged to set up a project appraisal group with a consultative role, to carry out critical and analytical assessments of projects prior to internal approval in FAO.

This group will, in the main, appraise complex and interdisciplinary projects and will ascertain their relevance, feasibility and potential effectiveness, and ensure that the related criteria for approval are met. It will consign its findings and recommendations in an appraisal note.

In practical terms, the Regional Bureaux and other services involved in project development within DDF, will selectively refer project proposals/requests to the appraisal group to obtain its views prior to requesting the involvement of a lead technical division for review and/or formulation.

The appraisal group will consist of core members selected on the basis of background, proven analytical experience and aptitude for this kind of work. The group will co-opt members as required.

- Programme Monitoring

20. DDF will maintain a watching brief over projects at all stages of preparation and during their implementation, to ensure their continuing relevance and adequacy to evolving needs and priorities of concerned countries. This also requires the review of ongoing programmes in the light of FAO policy and priorities and global policies adopted by the UN system.
21. Existing computerized systems will be amplified, as appropriate, in order to incorporate the new or expanded activities mentioned above, such as keeping a portfolio of viable projects; monitoring of project activities; systematic pre-appraisal of project proposals by FAORs; and monitoring the links between field activities and the Regular Programme.
22. Additional monitoring tools are the FAORs' periodic reports which assess the impact of the FAO Field Programme in the country and review its relationship with other external assistance. DDF will complement these assessments and identify required follow-up actions by Headquarters.
23. DDF's programme monitoring function will be strengthened by implementing in-depth country reviews for selected countries. During the 1990-91 biennium, such reviews are planned to be conducted for about 6-8 countries. Guidelines will be developed for their preparation, organization and follow-up arrangements. The selection of countries will be based inter alia on the following criteria: major policy and priority shifts by governments; emergency and rehabilitation requirements; preparation for and follow-up to UNDP Round Tables, World Bank Consultative Group meetings, UNDP programming exercises including NaTCAPs; donors' interest in funding projects in FAO's fields; the indication provided by evaluation exercises of persisting problems and low impact of external assistance projects, etc.

24. Findings arising from such reviews will be followed up with respective countries (to permit feedback to programme development process), with donors (mobilization of additional resources), and with in-house units (backstopping, revisions of projects etc.). The results of these reviews will also provide a basis for FAO's participation in international fora.
25. These reviews should be scheduled in such a way as to coincide with periodic visits to Headquarters of FAORs as well as UNDP Resident Representatives, if possible. The Permanent Representative to FAO of the country would be invited to participate, as would representatives of donor countries and related international institutions. In certain cases, follow-up meetings could be organized in the countries concerned. Both DDF and FAORs would ensure follow-up as appropriate.

- Programme/Project Follow-up and Feedback

26. FAORs will continue to provide annually catalogues of completed projects indicating possible follow-up requirements. Through their systematic review at Headquarters, FAO may be in a position to bring to the notice of governments follow-up issues and/or to indicate gaps requiring further external assistance.
27. The extraction of knowledge and experience from field activities - inter alia based on technical, progress, terminal and evaluation reports of projects - is basically the responsibility of the technical and operations units concerned. DDF will systematically disseminate lessons learned from the field activities, as brought to its attention.

- Change in Resources

28. There is no change proposed in Regular Programme resources. The changes described above will be selectively and progressively introduced during the biennium, as permitted by support cost resources.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region	Fund		Unit
Global	1 204	RP	6 874 DDF 17 318
Africa	8 057	Govt. Programmes	2 547
Asia and Pacific	4 114	UNDP	5 754
Near East	2 400	WFP	2 143
Europe	172		
Latin America	1 371		
TOTAL	17 318		17 318

Major Programme 3.2 - INVESTMENT

Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Approved Budget	Work Years	Extra- Budgetary Funds
3.2.1 FAO/World Bank Cooperative Programme	5 868	(428)	843	6 283	56.0	17 600
3.2.2 Investment Support Programme	13 269	0	1 947	15 216	122.0	0
3.2.9 Programme Management	1 981	0	375	2 356	22.0	0
Major Programme 3.2 Total	21 118	(428)	3 165	23 855	200.0	17 600

* Increase (Decrease)

Nature of the Programme

1. After a period of decline, in real terms, in both public and private investment in the agriculture, forestry and fisheries sectors of the developing world, the need for increased investment is more urgent than ever. Many developing countries are dependent on a continuing flow of external funds, if growth and development are to be sustained. The major external sources of capital investment for the agriculture sector of developing countries are the multilateral financing institutions. Over the years, FAO has built up its investment support services to assist member countries in formulating viable investment projects, in order to secure funding from these institutions.
2. Cooperative programmes with multilateral financing institutions started with the World Bank in 1964. Subsequently cooperation agreements were concluded with the regional development banks, IFAD, the major Arab funds, sub-regional financing institutions and national development banks. At present FAO, through its Investment Centre, has concluded agreements to cooperate with virtually all the multilateral institutions lending for agriculture.
3. By the end of 1988, 757 projects in 108 developing countries, identified or prepared with the assistance of FAO's Investment Centre, had been approved for financing. Total investments involved in these projects amount to US\$ 34 377 million. Of this total, supporting loans from financing institutions cooperating with FAO represented US\$ 17 572 million, with the balance provided by recipient countries themselves. Eighty-six percent of the total has been committed since 1976, when the Investment Centre was substantially strengthened.
4. The work of the Investment Centre is closely linked to the availability of multilateral resources for agricultural development. In this respect, prospects remain generally favourable. Agriculture has been re-emphasized as a priority sector for lending by the major financing

institutions cooperating with FAO. Concessional funds or "windows" have been replenished and special emphasis is being given to Africa. It can be expected that the demands for the Centre's assistance from both developing countries and financing institutions will continue at a high level during the 1990-91 biennium.

Medium-term Objectives

5. FAO's investment support services will continue to provide maximum assistance to developing countries, both to mobilize and to use effectively resources for investment in agricultural and rural development. As in the past, the main activity will be to assist member countries to identify and prepare viable, high-priority projects which will attract external funds from the multilateral and other financing institutions with which FAO cooperates. Countries will also be assisted in developing their own capacity to formulate investment projects to the standards required by the major multilateral financing institutions.
6. The structural adjustment processes pursued by many countries also affect the investment support work of FAO. Emphasis is now on investments that will rapidly increase production capacity, efficiency and export earnings. Loans are increasingly associated with policy changes intended to maximize the impact of investments. For many countries, agriculture represents a primary sector with rapid growth potential, though in future this growth may be constrained more by the size and absorptive capacity of domestic and export markets than by the availability of investment funds. Tight domestic public budgets and the pressures from external indebtedness are discouraging massive investments in heavy infrastructure projects, as well as in projects primarily directed toward welfare objectives. Instead, at least in the short term, the focus of projects tends to be on production, balance of payments support to permit importation of inputs, and funding of recurrent expenditure to maintain essential services, especially credit, extension and research. Projects and programmes need to be more rigorously designed to avoid excessive recurrent costs to the public sector, to provide for cost recovery and, in appropriate cases, to promote the participation of the private sector.
7. Institutional aspects will be especially important, particularly where the privatization of agricultural services has been selected as the preferred approach, and the restructuring of parastatal development organizations must be linked to the establishment of new promotional and regulatory systems. To design these in a way which is compatible with severe recurrent financial constraints remains a serious challenge.
8. Criteria of sustainability, physical as well as financial, will receive increasing attention, as the result of growing awareness of the fragility of natural resources, particularly in the humid and arid tropics, and of the need to build safeguards into project design to prevent environmental damage. The realization that improved methods of land management can conserve soil and water, while at the same time securing farmers' participation due to recognition of increased profitability in the short term, has given new prospects of economic viability to investments in soil conservation. These need no longer involve heavy government subsidies. The commitment of some governments, especially in Latin America, to revise land taxation and tenure policies to encourage less exploitative and destructive forms of resource use is opening further avenues: in particular, for area-based

investments which promote combinations of sustainable forms of land use as specified by agro-ecological zoning plans, ranging from intensive agriculture to total protection. The need for the active involvement of the land users in both the planning and the implementation of these new types of project is being increasingly recognized at the project design phase. Continued investment in forestry can also be expected, with emphasis on community forestry programmes.

9. In recent years, FAO's Investment Centre has provided planning support to governments through its involvement in sectoral and sub-sectoral work. Generally, this has consisted in assisting countries to make a technical and economic assessment of development options, which can provide the basis for policy dialogue with financing institutions, leading eventually to investment. The volume of this type of work will remain secondary to the Centre's major and continuing occupation with project identification and preparation; however, policy and institutional issues have become increasingly important in project design and, as the lending agencies devote more of their resources and attention to this aspect, it can be expected that the Investment Centre, in cooperation with other FAO units, will also be called upon to provide more of its time and manpower to this activity.
10. As in recent years, FAO will direct a major share of its investment support services to Sub-Saharan Africa where the agricultural sector continues to be of dominant importance. Taking account of the limitations of absorptive capacity, projects will tend to be small; emphasis will be on investments in food crops and crops for export and the strengthening of local institutions.

Plan of Action

11. FAO will pursue its programmes of cooperation with the major multi-lateral financing institutions. Cooperation with the World Bank, the largest single lender for agriculture, will account, as in the past, for a major part of the Investment Centre's work. Continued support will be given to IFAD, to the Regional Development Banks and the UN Capital Development Fund.
12. Continued emphasis will be given to the follow-up of technical assistance projects with investment potential, in order to ensure that more of the Organization's field work leads to investment. As in the past, FAO's Technical Cooperation Programme will provide valuable support for carrying out special studies connected with the formulation of investment projects. The Centre stands ready to increase its assistance to countries and financing institutions in sectoral analysis, which can form the basis for policy dialogue and subsequent investment, and will contribute to policy analysis work carried out elsewhere in the Organization.
13. The role of the Investment Centre in increasing the capacity of countries to identify and prepare investment projects will be maintained. Guidance will continue to be given to national project preparation teams who work closely with Investment Centre missions.
14. The Centre will continue to develop computer applications for investment project analysis; several of these are already being widely used in developing countries and cooperating financing institutions. The Centre will issue further technical papers which synthesize its experience in specific aspects of project formulation.

- Programme 3.2.1: FAO/World Bank Cooperative Programme

15. A major share of Investment Centre activities will continue to be directed toward assisting member countries in the formulation of investment projects for subsequent financing by the World Bank and particularly by its concessional window, the International Development Association.
16. Agriculture continues to be a priority sector for World Bank lending. Despite an increasing proportion of Bank commitments in the form of structural adjustment, sector and programme loans, the Bank's project lending is likely to remain at a high level. It is expected that the Cooperative Programme will continue to be responsible for identifying or preparing about one-quarter of World Bank projects in agriculture. The Programme is also being called upon by the Bank to assist countries in later phases of the project cycle. In close collaboration with the Bank, the Programme will continue to assist countries in sectoral and sub-sectoral work which can form the basis of policy dialogue, leading eventually to investment. As in the past, project work will cover a wide range of sub-sectors including crop production development, irrigation and drainage, livestock, research and extension, forestry including community forestry, fuelwood and agroforestry, fisheries, agro-industries, seeds, and general agricultural and area development.

- Programme 3.2.2: Investment Support Programme

17. This Programme which groups investment support activities with all financing institutions other than the World Bank, works mainly in the poorest countries, which most urgently need increased capital investment and continuing assistance in investment project formulation.
18. Joint activities with IFAD are expected to continue at a high level. As in the past, cooperation will also be maintained with the African, Asian and Inter-American Development Banks in the formulation of investment projects. These institutions have lately begun to request ISP assistance for broader sectoral studies, to facilitate policy dialogue with borrowing countries. A further increase in cooperative activities is foreseen with the UN Capital Development Fund. Work with these lending agencies, and with other sub-regional development banks and Arab Funds is expected to continue at a satisfactory level in 1990-91.
19. In view of the growing interest of member countries in expanding the participation of the private sector, the Investment Centre is seeking ways and means of strengthening its investment support activities in this field. The Investment Centre will continue to follow UNDP/FAO projects with investment potential and will extend this work to Trust Fund projects, as appropriate. While this activity is of relevance to the Centre as a whole, it tends to generate investment projects of particular interest to financing institutions cooperating with the ISP.

- Programme 3.2.9: Programme Management

20. This programme covers management supervision and administrative support of Investment Centre operations. The principal responsibilities of the management group, including senior advisors, cover the planning and development of the Centre's work programmes, the maintenance of high standards of quality in the Centre's work, maintaining close collaboration with other units in the Organization, and training, including in-service training of the Centre's professional staff.

Change in Resources

21. The reduction under Programme 3.2.1: FAO/World Bank Cooperative Programme (CP) is the consequence of the World Bank's decision, in 1987, to establish its contribution to the CP as a fixed amount, rather than in terms of man-years of services as in the past. This resulted in a decrease which could not be reflected in the 1988-89 Budget. For the current 1988-89 biennium, the World Bank is maintaining its contribution at this level in real terms. The provision, which covers FAO's 25 percent share of CP costs, assumes the same level of World Bank support for the CP in 1990-91. The number of Professional posts in the Cooperative Programme has been reduced accordingly, together with the provisions for temporary assistance, consultants and contractual services.
22. Under Programme 3.2.2: Investment Support Programme, the cost of ISP missions mounted on behalf of financial institutions are partially reimbursed through cost-sharing arrangements. In the expectation that requests for FAO assistance will continue at present levels and that reimbursement levels will be maintained, no change is proposed in the present allocation.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit
Global	0 RP	23 855	DDC	41 455
Africa	18 577	WORLD BANK	17 600	
Asia and Pacific	10 466			
Near East	4 886			
Europe	502			
Latin America	7 024			
TOTAL	41 455		41 455	41 455

Major Programme 3.3 - SPECIAL PROGRAMMES

Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Approved Budget	Work Years	Extra- Budgetary Funds
3.3.1 Freedom-from-Hunger-Campaign/Action for Development	1 324	0	190	1 514	12.0	355
3.3.2 André Mayer Fellowships	398	0	36	434	0.0	0
Major Programme 3.3 Total	1 722	0	226	1 948	12.0	355

* Increase (Decrease)

Programme 3.3.1 - Freedom from Hunger Campaign/ Action for Development

Nature of the Programme

1. The role of NGOs in developing regions in reaching and organizing the poorest sectors of the rural populations is well recognized, as is the relevance of their experience to the development efforts of governments and intergovernmental organizations. These NGOs require assistance, particularly in formulating sound project proposals and in obtaining financial support from NGO funding agencies in developed countries. Greater exchange of information on NGO experience is needed, both among developing countries and with developed countries.

Medium-term Objectives

2. The objectives of the programme are:
 - (i) to identify NGOs, NGO networks, and grassroots organizations engaged in rural development and agricultural activities in developing countries and to assist them in formulating valid projects;
 - (ii) to mobilize resources to fund such rural development activities;
 - (iii) to assist in training staff of national NGOs, village level groups and other cooperating organizations in project formulation and management;

- (iv) to promote exchange of experience among NGOs in the developing and developed regions;
- (v) to promote continued cooperation between NGOs and FAO on rural development issues of common interest.

Plan of Action

- Support to NGOs in Developing Countries

3. Assistance will continue to be given to NGOs in developing countries in the identification and formulation of projects involving the rural poor, in accordance with FAO's objectives of assisting weak and marginalized sectors of the rural population. Emphasis will be placed on projects which focus on increasing food production through the use of simple, low-cost technologies and improved practices suited to the needs and characteristics of small farmers and consistent with sustainable agriculture.
4. As in the past, FFHC/AD will rely on local consultants to assist NGOs and village level groups in project identification, formulation and evaluation, and to undertake training activities at the local, national and inter-country level. Training will be aimed at strengthening NGOs' and peasants' capacity to deal with problems of low productivity and attain food self-sufficiency. Networking will continue to be encouraged as a means to promote collaboration, exchange experience and maximize use of scarce resources. Both Regular Programme and Trust Funds will be used to support these activities.

- Mobilization of Support from NGO Donors

5. Efforts to mobilize resources from NGO donors will continue. It is expected that the Fourth International FFHC/AD Consultation (Rome, October 1990) grouping major NGO donors and partners in the developing world, will encourage donors to finance more projects proposed through FFHC/AD. Donors will also be encouraged to collaborate with FFHC/AD on a programme basis involving medium- and long-term commitments. A series of encounters with donors interested in specific countries or areas of work will be organized in Europe and in the developing regions. It is expected that the training activities mentioned above will result in increased support from funding sources, as they will inter alia assist NGOs and village-level groups in developing countries to formulate sound projects within the framework of a food-security strategy.

- Promotion of Exchange of Information

6. FFHC/AD will continue to produce the Development Education Exchange Papers (DEEP) which review educational material on food, agriculture and development coming from various sources.
7. The FFHC/AD Reference Service will continue its contacts with development-oriented documentation centres in developing countries. It will encourage the exchange of information between NGOs in developed and developing countries, and provide other FAO units access to NGO documentation relevant to their work.

- Promotion of FAO/NGO Cooperation

8. The promotion of fruitful technical interaction between the NGOs in both developed and developing countries and FAO will continue to receive attention by FFHC/AD during the next biennium. In particular, productive exchanges will be supported between FAO technical divisions and FFHC/AD's networks of NGO partners on questions relating to food security and sustainable agricultural development.

Change in Resources

9. No change is proposed.

Programme 3.3.2 - André Mayer Fellowships

Nature of the Programme

1. Fellowships are an important component of training activities in support of development, and in particular of FAO technical assistance to developing member countries. The André Mayer Fellowships is a special programme introduced in 1956. It is separate from other fellowships administered by the Agricultural Operations Division and financed under various extra-budgetary programmes and the Technical Cooperation Programme, with its own characteristics and modalities related to the promotion of advanced research.

Objective and Plan of Action

2. The Programme's objective is to provide fellowships for the promotion of advanced research in selected fields of food and agriculture, which are of special interest to developing countries. Several fellowships with a duration of one to two years will be awarded. Preference will be given to research projects falling within the priority areas of the Regular Programme.
3. Further efforts are to be made to place fellows in research institutions in developing countries, thus contributing to decreasing unit costs and at the same time better disseminating the results of the research work. The Technical Advisory Committee (TAC) of the CGIAR will be requested to recommend the research programmes to be carried out, based on priority areas of the Regular Programme.

Change in Resources

4. No change is proposed.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit
Global	1 365	RP	1 948	AGO 434
Africa	379	Govt. Programmes	355	DDA 1 869
Asia and Pacific	257			
Near East	15			
Europe	30			
Latin America	257			
TOTAL	2 303		2 303	2 303

Major Programme 3.4 - FAO REPRESENTATIVES

Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Approved Budget	Work Years	Extra- Budgetary Funds
3.4.0 FAO Representatives	47 651	428	7 133	55 212	0.0	3 012
Major Programme 3.4 Total	47 651	428	7 133	55 212	0.0	3 012

* Increase (Decrease)

Nature of the Programme

1. The decentralization of FAO's action was given concrete expression in the phased establishment of the 78 country offices, so far authorized by the FAO Conference. Requests from other countries have been mostly met, through multiple accreditations.
2. FAO Governing Bodies have recognized that FAORs have a fundamental role in ensuring the full participation of the countries to which they are assigned, in FAO's Regular Programme activities and in the development of Field Programmes. By their continued presence, FAORs ensure that governments are able to make effective use of the knowledge and facilities which the Organization can offer, for instance by identifying assistance needs and monitoring Field Programme implementation. The experience of the past decade shows that, with knowledge of the country's food and agricultural situation and problems, as well as of relevant economic, social and political factors, FAORs become a source of competent advice to governments. At the same time, their intimate knowledge of countries' policies, programmes and priorities, of local institutional frameworks and constraints to development allow FAORs to transmit comprehensive information and the latest developments to Headquarters and thus permit fuller account to be taken of the requirements of member countries.
3. FAO Representatives maintain close contact and collaborate with representatives of other UN agencies, in particular the UN Resident Coordinators/UNDP Resident Representatives as well as representatives of international financing institutions and bilateral agencies involved in technical cooperation activities and thus facilitate FAO's overall cooperation with these institutions.
4. The present proposals do not foresee the establishment of additional offices. During the 1990-91 biennium, the consolidation and strengthening of the existing offices will be a major focus. The coverage of additional countries may, however, require further multiple accreditations and/or outposted Programme Officers.

Medium-term Objectives

5. The main objective of the major programme is to facilitate a continuing dialogue with the government and the aid community in the country concerned, on policies, strategies and priorities for agricultural development.
6. More specifically, FAORs are to:
 - (a) identify, in consultation with respective governments, ways in which the Organization can contribute to the improvement of the food and agricultural situation as well as rural development;
 - (b) represent the main channel for FAO's advice to governments and liaise with foreign missions on matters related to the countries' agricultural development;
 - (c) assist in identifying local institutions with which FAO can collaborate in the implementation of Regular Programme and field activities;
 - (d) facilitate the flow of information required for the Global Information and Early Warning System (GIEWS), the State of Food and Agriculture (SOFA) and other FAO activities;
 - (e) assist in the preparation and undertake appraisal of projects and requests for emergency assistance; monitor and help expedite project approvals; provide immediate assistance in the resolution of operational problems; monitor effectiveness and impact of FAO field activities and follow-up of completed projects; assist visiting missions;
 - (f) advise UNDP Resident Representatives/UN Resident Coordinators, and collaborate with country representatives of other agencies of the UN system as well as of other international organizations, financing institutions and bilateral assistance programmes;
 - (g) report on the country's food and agricultural situation and participate in public information activities, e.g. in connection with World Food Day.

Plan of Action

7. Country intelligence will be further strengthened by establishing a reference system in each FAO Representation with a view to supporting programme development activities (see Major Programme 3.1) and channeling information to Headquarters. For this purpose, various types of information on the country, including on external assistance, will be systematically collected, analyzed and maintained.
8. The FAO Representations will be strengthened to meet the increasing need of FAO field projects for administrative and general support services resulting from changing modalities in project implementation. Their staff will be further trained and office automation will be introduced on a gradual but systematic basis. In order to monitor more systematically the functioning of FAO Representations, an inspection system will be set up.

9. Some of the activities approved earlier, but the implementation of which was postponed in view of financial difficulties in the last two biennia will be resumed, resources permitting. These include the organization of global and regional meetings of FAORs, training courses for programme and administrative staff, and a number of maintenance and replacement measures.

Change in Resources

10. The additional resource requirements resulting from the proposed consolidation and strengthening of activities, will be covered by the net proposed increase of US\$ 428 000.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit
Global	0	RP	55 212	FAOR 58 224
Africa	25 915	Govt. Programmes	3 012	
Asia and Pacific	10 982			
Near East	8 765			
Europe	676			
Latin America	11 886			
TOTAL	58 224		58 224	58 224

Major Programme 3.9 - PROGRAMME MANAGEMENT

Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Approved Budget	Work Years	Extra- Budgetary Funds
3.9.0 Programme Management	820	0	152	972	10.0	1 051
Major Programme 3.9 Total	820	0	152	972	10.0	1 051

* Increase (Decrease)

Nature of the Programme

1. It is necessary to plan, direct, coordinate and supervise all activities within the responsibility of the Development Department, including pre-investment and investment activities, and securing funds for development programmes financed from extra-budgetary resources.

Objective and Plan of Action

2. The immediate Office of the Assistant Director-General, Development Department, will carry out the above tasks, including policy coordination covering development strategies, field programmes, TCP, TCDC and FAO Representatives, liaising with the Regional Offices, and monitoring the flow of external resources for agricultural development from both bilateral and multilateral sources.

Change in Resources

3. No change is proposed.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region	Fund	Unit
Global	2 023 RP	972 DDD
Africa	0 Govt. Programmes	769
Asia and Pacific	0 UNDP	282
Near East	0	
Europe	0	
Latin America	0	
TOTAL	2 023	2 023

Chapter 4-TECHNICAL COOPERATION PROGRAMME

Chapter	Regular Programme						
	1988-89				Extra		Total
	Approved Programme Budget	Change*	1990-91 Base	Cost Increase	1990-91 Budget	Budgetary Funds	Funds 1990-91
4. <u>Technical Cooperation Programme</u>	63 148	1 750	64 898	2 869	67 767	0	67 767
CHAPTER 4 TOTAL	63 148	1 750	64 898	2 869	67 767	0	67 767

* Increase (Decrease)

Nature of the Programme

1. The Technical Cooperation Programme's (TCP) main characteristics are: its response to urgent needs; its unprogrammed character; speed in approval; limited project duration; low cost; practical orientation; catalytic role and complementarity to other sources of assistance.

- Criteria

2. FAO Governing Bodies have laid down criteria which govern the nature and the types of assistance which can be rendered under the Technical Cooperation Programme. These criteria specify that requests must:
 - give emphasis to increasing production in food and agriculture, fisheries or forestry with a view to increasing incomes of small-scale producers and rural workers;
 - be accorded high priority by the government, which must also assure that the required local support facilities and services will be available and that follow-up action will be taken;
 - be directed to an urgent and specific problem or need, limited to a particular section or area, and involve practical action with well-defined objectives and expected results;
 - involve the most effective and least costly method of execution;
 - provide assurance of the fullest possible participation of the governments in project execution, through such means as the use of national institutions, personnel and resources.

3. Overall, TCP gives priority to the least-developed countries.
 - Type of Assistance
4. TCP provides technical inputs, not financial assistance. These inputs take the form of:
 - services of experts (for a maximum of 12 months) and consultants;
 - short-term and practically-oriented training activities, particularly at "grass-roots" level and on site; study tours are kept to an absolute minimum and used, in connection with a clearly-defined and technically-justified training programme;
 - equipment and supplies, whenever deemed essential for project activities. Except in the case of emergency projects, their cost cannot exceed 50 percent of the total project budget;
 - sub-contracts to institutions, for technical services.
 - Appraisal Procedures
5. Requests for TCP assistance may be submitted by governments of those member countries which qualify for development assistance from the UN system or by recognized intergovernmental organizations, regional or sub-regional, of which such countries are members. All requests are subject to a thorough appraisal/review process which involves the FAO Representative in the considered country, the TCP Unit, the technical and operational divisions concerned, and finally the Assistant Director-General, Development Department, for formal approval on behalf of FAO.
6. This involves more precisely:
 - (a) the FAO Representative, who provides Headquarters with:
 - his own evaluation of the country's requirements and confirmation that the assistance requested is of urgent character or in response to emergency situations;
 - expressed commitment of counterpart obligations;
 - information on possible links to other ongoing/planned technical assistance activities;
 - evidence of likely prospects of follow-up action in terms of the government's own programme or future external assistance;
 - in case of multiple requests, an indication of the relative priority the government accords to each.

(b) the TCP unit at Headquarters (DDFT) on which the major appraisal responsibility rests and which inter alia:

- assesses the conformity of the request with TCP's established criteria;
- ensures that the request does not consist of a mere repetition of previous TCP assistance;
- as necessary, consults with the Headquarters units and/or obtains additional background information or justification through the FAO Representative;
- reviews the proposed project budget;
- identifies the lead technical division.

(c) the designated lead technical division, which reviews the background and the technical justification of the request in consultation with other divisions concerned. If the overall assessment is positive, the lead division prepares a consolidated version of the project agreement, in collaboration with the operational units (AGO, FIDO, FODO) as regards starting date, specifications of equipment/supplies, the eventual training components, reporting requirements, etc..

(d) DDFT, again, which proceeds with a final assessment; the project agreement is then submitted for formal approval on behalf of FAO to the Assistant Director-General, Development Department.

- Approvals

7. From 1976 to end March 1989, a total of 4 018 projects were approved, for a total amount of US\$ 298 million, i.e. an average of US\$ 76 000 per project. The average budget of the projects approved in 1988 and early 1989 is slightly above US\$ 110 000.

- Categories

8. TCP projects are divided into seven categories: Training, Advisory Services, Emergencies, Investment, Formulation/Programming, Inter-country Cooperation mainly in support of TCDC, and Support to Development. The distribution of TCP allocations among categories varies from year to year, depending on the nature of requests received. The data regarding 1988 as compared to the previous ten-year average, are shown below:

Distribution of TCP allocation by category (percentage)

	<u>1978-87</u>	<u>1988</u>
Training	32	23
Advisory Services	23	34
Emergencies	23	21
Investment	11	10
Formulation/Programming	5	7
Inter-country Cooperation (TCDC)	1	5
Support to Development	5	-

Regional and sectoral distribution

9. While, by essence, there are variations of yearly TCP allocation by country, the distribution among the five FAO regions tends to remain within the same order of magnitude. Again, the data regarding 1988 are shown below, together with the previous ten-year average.

Distribution of TCP allocations by region (percentage)

	<u>1978-87</u>	<u>1988</u>
Africa	40.3	42.4
Asia & Pacific	24.3	21.7
Latin America & Caribbean	13.4	15.7
Near East	20.4	18.3
Europe	1.6	1.9

10. The 1988 percentage breakdown of TCP assistance by major technical department is shown in the following table:

PERCENTAGE BREAKDOWN OF FUNDS ALLOCATED TO TCP PROJECTS (1988)
(Based on original approvals excluding revisions)

	Agriculture		Economic and Social Policy		Fisheries		Forestry		General Affairs and Information		TOTAL		Total US\$ '000 and % by category
	%	%	%	%	%	%	%	%	%	%	%	%	
Training	22.5	64.0	18.1	17.6	23.3	6.9	13.4	3.5	44.1	8.0	100.0		5 728.0 22.0
Advisory Services	25.5	46.8	44.5	28.0	45.0	8.6	62.1	10.4	52.7	6.2	100.0		8 856.0 34.0
Emergencies	34.8	97.4	1.8	1.7	0.0	0.0	3.4	0.9	0.0	0.0	100.0		5 807.0 22.3
Investment	9.6	59.9	12.1	25.8	13.8	9.0	7.0	4.0	3.2	1.3	100.0		2 598.0 10.0
Form./Prog. Missions	2.8	25.0	17.8	55.5	10.5	10.0	11.4	9.5	0.0	0.0	100.0		1 785.0 6.9
TCDC	4.8	61.6	5.7	25.3	7.4	10.0	2.7	3.2	0.0	0.0	100.0		1 255.0 4.8
TOTAL	% 100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Total US\$ '000 and % by sector	16 246.0 62.4	5 564.0 21.4	1 689.0 6.5	1 490.0 5.7	1 039.0 4.0	26 029.0 100.0							

- Impact

11. The impact of TCP projects is evaluated by means of: 1) comments requested from both the recipient government and the FAO Representative, after submission of the final report; 2) the FAO Representative's six-monthly report, which assesses the results and indicates ongoing or expected follow-up to TCP projects; 3) ad hoc surveys in order to consolidate information on follow-up action; 4) external evaluation missions. Financial information on the implementation of TCP projects, by country, is regularly provided in the Organization's biennial accounts, submitted to the Finance Committee, Council and Conference.

- Objective and Plan of Action

12. The overall objective is to continue implementing the programme in conformity with its approved criteria, so that TCP maintains its unique character in the world system of technical cooperation in the field of food and agriculture and continues to play its fundamental role within the general framework of FAO's activities. For this purpose, monitoring and follow-up of TCP projects will remain essential. FAO Representatives will continuously inform both the governments and other sources of external assistance about achievements of ongoing and terminated TCP projects, in order to ensure follow-up and dissemination of results for multiplier effects, as well as to mobilize additional national and external resources for expanded impact.

Change in Resources

13. The percentage of the TCP appropriation to the total effective working budget has dropped to 12.8 percent in the present Programme of Work and Budget. Serious concern has been expressed in FAO Governing Bodies, particularly by beneficiary countries. Pressing calls were made to arrest this trend and were reiterated at the last sessions of the Programme and Finance Committees and the Council. The Director-General accordingly proposes a limited net programme increase for the TCP appropriation, to enable FAO to better meet the needs of member countries for urgent and small-scale assistance.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit
Global	0 RP	67 767	TCP	67 767
Africa	28 462			
Asia and Pacific	14 909			
Near East	10 843			
Europe	1 355			
Latin America	12 198			
TOTAL	67 767	67 767		67 767

Chapter 5-SUPPORT SERVICES

SUMMARY OF ESTIMATES BY PROGRAMME (\$000, All Funds)

		Regular Programme							
Major Programme/Programme		1988-89		1990-91		Cost	1990-91	Extra	Total
		Approved Budget	Programme Change*	Base	Increase	Budget	Budgetary Funds	1990-91	Funds
5.1	<u>Information and Documentation</u>								
5.1.1	Public Information	9 342	119	9 461	1 722	11 183	449	11 632	
5.1.2	Library	5 596	(85)	5 511	1 193	6 704	260	6 964	
5.1.3	Publications	3 824	0	3 824	803	4 627	3 498	8 125	
	Major Programme 5.1 Total	18 762	34	18 796	3 718	22 514	4 207	26 721	
5.2	<u>Administration</u>								
5.2.1	Administrative Services	22 251	180	22 431	4 572	27 003	8 439	35 442	
5.2.2	Financial Services	8 231	0	8 231	1 744	9 975	5 977	15 952	
5.2.3	Computer Services	1 373	0	1 373	253	1 626	3 429	5 055	
5.2.4	Personnel Services	14 915	0	14 915	2 994	17 909	3 565	21 474	
	Major Programme 5.2 Total	46 770	180	46 950	9 563	56 513	21 410	77 923	
5.9	<u>Programme Management</u>								
5.9.1	General Affairs and Information	1 595	0	1 595	382	1 977	226	2 203	
5.9.2	Administration and Finance	432	0	432	99	531	469	1 000	
	Major Programme 5.9 Total	2 027	0	2 027	481	2 508	695	3 203	
CHAPTER 5 TOTAL		67 559	214	67 773	13 762	81 535	26 312	107 847	

* Increase (Decrease)

Major Programme 5.1 - INFORMATION AND DOCUMENTATION

Programme 5.1.1 - Public Information

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
5.1.1.0 Public Information	7 957	300	1 557	9 814	92.9	449
5.1.1.7 Regional Offices	1 385	(181)	165	1 369	23.6	0
Programme 5.1.1 Total	9 342	119	1 722	11 183	116.5	449

* Increase (Decrease)

Nature of the Programme

1. The nature and complexity of the world food problems and the scope of FAO's activities, at Headquarters and in the field, need to be brought to public attention. This is primarily to generate increased support for national and international actions needed in the fight against hunger and malnutrition.

Medium-term Objectives

2. These include:
 - (a) contributing to better public understanding of the global food issues and of FAO's activities in this respect;
 - (b) increasing public awareness of the importance of concerted action at national and international levels in areas falling under FAO's mandate;
 - (c) strengthening public and institutional support for FAO's programmes.

Plan of Action

- News Media

3. Cooperation with the news media - press, radio and television - including the technical and specialized media, will be systematically expanded to stimulate coverage of the world food situation, FAO's main priorities, its activities with regard to world food security, and World Food Day.
4. TV and radio coverage will be expanded through co-production with TV and radio stations. Coverage of field operations will be strengthened through video, radio and reportage missions. Modernization of equipment will permit improvement in the quality of video productions and efficiency in distribution.

- Production of Information Materials

5. Public information materials will continue to be directed at those able to mobilize national and international support for FAO activities and for agricultural and rural development.
6. Attention will be given to improving the quality of these materials through modernization of equipment. Such productions as "FAO - What it is", fact sheets, "Newslink", etc. will be continued. The production of display materials with considerable public relations impact, such as wallsheets and posters, will be reintroduced. Participation in major international fairs will be ensured. In support of all these activities, photo coverage of FAO's field work will be expanded. An important activity is the contribution of the Information Division to the "State of Food and Agriculture" (SOFA), which replaces the "World Food Report". Public information materials will support the observance of World Food Day at national and regional levels.

- CERES

7. In view of its central role in conveying a comprehensive image of FAO's activities to an influential audience, CERES, which was suspended in late 1988 due to the Organization's financial situation, is to be relaunched in 1990.

- Other activities

8. The Visitors' Service will continue to organize briefings of some 10 000 visitors annually. Written requests for information, approximately 3 000 a year, will also be met.

Change in Resources

9. No net change is proposed for the GII Division. However, a transfer of staff costs from Sub-programme 2.1.5.1.2, which is also the responsibility of the Information Division, is made to reflect more accurately the distribution of divisional costs in relation to the work performed.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region	Fund		Unit	
Global	10 263	RP	11 183	GII
Africa	219	Govt. Programmes	449	Regional Offices
Asia and Pacific	361			
Near East	208			
Europe	0			
Latin America	581			
TOTAL	11 632		11 632	

Programme 5.1.2 - Library

Sub-Programme		1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
5.1.2.0	Library	5 596	(85)	1 193	6 704	92.0	260
Programme 5.1.2 Total		5 596	(85)	1 193	6 704	92.0	260

* Increase (Decrease)

Nature of the Programme

1. The David Lubin Memorial Library comprises the main library and branches in the Fisheries and Forestry Departments and in the Nutrition and Statistics Divisions. It is a major source of bibliographic information and documents in the realm of the Organization's activities at Headquarters and in the field. Its collections include the large number of publications and documents generated by FAO including project reports, meeting papers, technical studies and audiovisual materials which need to be preserved, indexed and made known worldwide. More generally, the Library must maintain and update its data bases and keep collections of non-FAO books and periodicals most relevant to FAO's programmes. It needs to continue the modernization of its operations in order to provide efficient and cost-effective services and respond to diversified and evolving users' requirements. Highest priority will be given to the activities that are relevant to FAO's unique role of world repository of information on food and agriculture, while ensuring complementarity with the activities of other libraries and documentation centres in member countries.

Medium-term Objectives

2. These are to:
 - (a) maintain the Library's basic reference role inter alia by ensuring systematic collection, bibliographic description and microfiching of FAO's publications and field documents;
 - (b) respond in a timely and effective manner to the information requirements of FAO programmes at Headquarters and in the field, from its own collections of substantive, reference and bibliographic materials as well as other relevant external sources;

- (c) promote international cooperation and exchange of documents through coordination of the Agricultural Libraries Network (AGLINET).

Plan of Action

- FAO Library Data Base

3. The Library will continue to collect, catalogue, index and microfiche the large number of publications and documents including meeting papers, project reports, studies and audiovisual materials which result from FAO's work at Headquarters and in the field. Attention will be given to achieving full coverage and timely processing, maintaining linguistic balance, incorporating abstracts in the data base and ensuring more effective dissemination to users in member countries.
4. The "FAODOC" data base, which contains nearly 110 000 FAO documents, will be regularly updated and on-line access ensured for internal users. The main bi-monthly printed output: Current Bibliography, will be made more informative and its indexes extended for the benefit of French and Spanish speaking users. FAODOC will be made available on compact disk to permit wider use and local access in member countries. The full-text microfiche subscription service will be maintained for the whole data base and on a country basis (i.e. FAO documents pertaining to a country). These country sets will be available in FAO Representatives' Offices for the benefit of local users.

- Development of Library Resources

5. In view of the continuous increase in the cost of periodicals and books, acquisitions will be closely monitored to take account of resources available. In consultation with the concerned technical divisions, an essential core of non-FAO substantive, reference and bibliographic material will be maintained, including through recourse to exchanges and gifts whenever possible. Circulation routines will be automated to permit effective management of the collections and more efficient and speedy service to users.

- Library Services

6. Two-thirds of the Library services are related to requests from the field. These include acquisitions, bibliographic searches, selective dissemination of information and document delivery. Bearing in mind better communication with, and training of users, systematic briefing of all new Professional staff at Headquarters and in the field will be carried out, together with the continued updating of mailing lists. It will also be important to make research workers, project managers and development officers in member countries more aware of the specific documentation services available through the FAO library system at Headquarters, in the Regional Offices and in the FAO Representations.
7. While traditional library reference services will be maintained, bibliographic information services will increasingly rely on on-line retrieval from FAO data bases: FAODOC, FAOLIB (nearly 40 000 records) and AGRIS (1 600 000 records), and from external data bases available on compact disk or via telecommunication networks, as required. Selective Dissemination of Information (SDI) from the AGRIS and FAODOC will continue to be offered to field projects and to institutions in member

countries, particularly in the developing world. Document delivery services will be pursued using FAO's own collections, other relevant sources and the AGLINET Libraries Network. Increased use of on-line ordering will significantly speed up delivery time.

- AGLINET Coordination

8. The David Lubin Memorial Library will continue to coordinate this world-wide network of agricultural libraries, which now includes 27 members from developed and developing countries. Through the exchange of photocopies and material in respective collections, these libraries will be able to complement each other whenever possible, optimize use of their acquisition budgets and improve services to their users.

Change in Resources

9. A small shift of resources is made to Sub-programme 2.1.4.3 which is also implemented by the GIL Division.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit
Global	6 964	RP	6 704	GIL
Africa	0	Govt. Programmes	260	
Asia and Pacific	0			
Near East	0			
Europe	0			
Latin America	0			
TOTAL	6 964		6 964	

Programme 5.1.3 - Publications

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
5.1.3.0 Publications	3 824	0	803	4 627	0.0	3 498
Programme 5.1.3 Total	3 824	0	803	4 627	0.0	3 498

* Increase (Decrease)

Nature of the Programme

1. The implementation of FAO's programme requires the production and distribution of a considerable amount of printed material, and the dissemination of information relating to nutrition, food and agriculture, fisheries and forestry. This stems from the constitutional responsibility of the Organization (Constitution, Article I.1) and requires the publication of books, technical studies and periodicals; moreover, documents, working papers and reports of FAO meetings must be issued. Since FAO is a multilingual organization, the operations include translation into the official languages, as well as editing, typing, printing and distribution throughout the world. These operations must be carried out in a way that meets the often conflicting requirements of economy, timeliness and quality.

Medium-term Objectives

2. These are to:
 - (a) produce and distribute in various languages books, technical studies and periodicals in all fields of FAO's competence;
 - (b) process documents and working papers in the required FAO languages and make them available in time for effective use at meetings, seminars, training courses, etc., organized at Headquarters and in the field;
 - (c) advise upon and ensure compliance with FAO policy on publications, documents and the use of languages.

Plan of Action

3. The further rationalization of FAO's overall publication activities will be pursued, in order to achieve less volume and fewer titles, closer relevance to expressed requirements and more effective use in member countries of the Organization's published output. A substantial share of available resources will again be devoted to the production and dissemination of development-oriented materials with a strong training component, especially at grass-roots and intermediate levels.
4. Improved productivity and efficiency of processing operations (translation, editing, composing, printing and distribution) will be sought through rational use of manpower resources and machine capacity, and further introduction of modern technology, which has shown impressive potential in initial stages. Computerized word-processing, graphics and desktop publishing are expected to dramatically speed up processing and improve the appearance of meeting documentation and publications.
5. Continued emphasis will be placed on improving the distribution of FAO material in developing countries, servicing FAO depository libraries and expanding the network of FAO sales agents.
6. According to existing practice, most of the costs incurred and administered by the Publications Division are distributed under the Organization's relevant programmes and sub-programmes. In addition, Programme 5.1.3 includes the following:

- Unapportioned Reserve

7. This reserve is intended to permit flexibility in the execution of the publications and documents programmes, ensure linguistic balance in the written output of the Organization, cover GIP's own publishing requirements (e.g. for the production of terminology bulletins), and meet unforeseen requirements, including special studies. A main use is to encourage and to assist member countries to translate, adapt, publish and distribute FAO material (especially at the grass-roots and intermediate levels) in local non-FAO languages.

- Chinese

8. A special provision is made for the translation and reproduction of publications and documents in Chinese as required, while the production of documents in Chinese for major meetings, which is a statutory requirement, is provided for under Programme 1.1.1.

Change in Resources

9. No change is proposed.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit
Global	8 125	RP	4 627	GIP
Africa	0	Govt. Programmes	209	
Asia and Pacific	0	UNDP	225	
Near East	0	WFP	3 064	
Europe	0			
Latin America	0			
TOTAL	8 125		8 125	8 125

Major Programme 5.2 - ADMINISTRATION

Programme 5.2.1 - Administrative Service

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
5.2.1.1 Purchasing and Control	1 447	49	364	1 860	34.0	509
5.2.1.2 Buildings Management and Services	9 440	(218)	2 356	11 578	276.0	4 137
5.2.1.3 Communications and Central Records	6 137	(193)	1 472	7 416	168.0	3 009
5.2.1.4 Contracts	323	164	110	597	8.0	160
5.2.1.5 General Direction	1 718	198	332	2 248	20.0	624
5.2.1.7 Regional Offices	3 186	180	(62)	3 304	180.2	0
Programme 5.2.1 Total	22 251	180	4 572	27 003	686.2	8 439

* Increase (Decrease)

Nature of the Programme

- Administrative services cover: maintenance and improvement of the Headquarters premises and related services in support of the Organization's programme of work; procurement and control of furniture, equipment and supplies needed to carry out the Headquarters and field programmes; provision of communications and records services; and provision of contractual services required by the Organization.

Objective and Plan of Action

- The objective is to provide efficient administrative and support services to all units of the Organization, wherever located, and to field activities.

- Sub-programme 5.2.1.1: Purchasing and Control

- Activities include the procurement of furniture, equipment and supplies and, except as delegated, of vehicles, equipment and supplies for field projects; the establishment and application of standards for their specifications, quality and useful life; the continuing review of available, and search for new, sources of supply, with particular attention to procurement from developing countries; the search for optimum prices especially through bulk and forward buying where feasible; the use of computerized methods to provide a fast and reliable service; and the exercise of all controls necessary to ensure compliance with the Financial Regulations and Rules.

- Sub-programme 5.2.1.2: Buildings Management and Services

4. Activities include space management and provision of other facilities to meet the Organization's requirements at Headquarters; maintenance, renovation and refurbishing of premises; provision of utilities; housekeeping; provision of local transportation; safety and security services for overall protection of persons, property and records of the Organization within Headquarters premises; and other services needed for effective operations at Headquarters. Coordination with the competent Host Country's authorities will be ensured, regarding the restructuring works of the Headquarters premises.

- Sub-programme 5.2.1.3: Communications and Central Records

5. Activities include the provision of telephone, telex, facsimile, postal, diplomatic pouch and internal communication services, including simultaneous interpretation facilities; the management of registries, records retirement, selection of material for the archives and their preservation, and monitoring of record-keeping systems at regional and country offices. Mechanized and computerized methods are widely used in these areas, and opportunities emerging for further computerization and rationalization in the telecommunications sector will be fully exploited.

- Sub-programme 5.2.1.4: Contracts

6. Activities include the preparation, negotiation and award of all contracts except those dealt with by AFP, GIP and GII; the preparation of standardized contracts where feasible; coordination with substantive and operating units on contractual matters; the establishment and monitoring of appropriate and efficient contractual procedures, including those relating to bidding, awards and contract revisions or cancellations; and the preparation of statistics on the award of contracts. Computerized data processing has been introduced and is being progressively upgraded.

- Sub-programme 5.2.1.5: General Direction

7. Activities include liaison with the Host Government on the execution of agreements; the overall management of administrative services, including the servicing of field projects and offices by Administrative Officers; and the supervision of catering and commissary services.

Change in Resources

8. The personal services and related costs required to carry out the above activities are included under this programme. The remaining expenditures are provided under Chapter 6. This programme and Chapter 6 also include funds for similar activities carried out in the Regional Offices.

9. Economy measures introduced in buildings management and communications make it possible to eliminate 21 General Service posts. One new Professional post of Contracts Officer is, however, required. The costs of computer services, which will be substantial, will be offset by the staff cost reductions, leading to no overall net change for the AFS Division.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit	
Global	30 138	RP	27 003	AFS	30 138
Africa	701	Govt. Programmes	1 534	Regional Offices	5 304
Asia and Pacific	880	Other TF	2 000		
Near East	527	UNDP	3 092		
Europe	272	WFP	1 813		
Latin America	2 924				
TOTAL	35 442		35 442		35 442

Programme 5.2.2 - Financial Services

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
5.2.2.1 Accounting and Financial Control	3 675	(80)	734	4 329	41.0	2 600
5.2.2.2 Payments and Treasury	4 556	80	1 010	5 646	69.0	3 377
Programme 5.2.2 Total	8 231	0	1 744	9 975	110.0	5 977

* Increase (Decrease)

Nature of the Programme

1. Financial services cover: advising Management on financial policy; maintaining the Organization's accounts; producing financial statements, reports and information as required for Governing Bodies, Trust Fund donors and programme managers and, as agreed, for inter-agency bodies; ensuring that the income due to the Organization is received and accounted for; investing available funds pending disbursement and obtaining maximum interest income, while observing liquidity and safety of capital requirements; executing all financial transactions of the Organization in accordance with Financial Regulations, Rules and Procedures; participating through the inter-agency machinery in the formulation of common UN system financial policies; and the coordination and oversight of financial activities wherever performed in the Organization to ensure that established financial policies and procedures are faithfully observed.

Objective and Plan of Action

2. The objective is to maintain and increase further the efficiency and effectiveness of the Organization's financial services, while providing for full implementation of FAO's financial management system, FINSYS.

- Sub-programme 5.2.2.1: Accounting and Financial Control

3. Full implementation of Phase II (General Ledger and Budget) for the fully-integrated and inter-active financial management system is expected during the first few months of the 1990-91 biennium. FINSYS will provide improved financial administration at Headquarters and in the field with the availability of more timely and reliable financial reports at all levels of management. It will also require profound

changes in the way financial transactions are processed and the information on financial results is made available. While savings are expected in future biennia, there are a number of new requirements that must be met within existing resources to assure that FINSYS is properly implemented and effectively operated. Another important aspect is to provide the required direction and close supervision over the financial operations of AFF Division, and oversight over financial operations performed elsewhere in the Organization, to ensure that established financial policies and procedures are observed.

- Sub-programme 5.2.2.2: Payments and Treasury

4. Full implementation of Phase II (Payments and Treasury) and Phase III (Travel) activities at the beginning of the 1990-91 biennium will materially change the way in which concerned administrative units conduct their operations. Even more so than under the preceding sub-programme, savings in staff may be envisioned in the long term for payments-, treasury-, and travel-related work due to FINSYS. The introduction of FINSYS is expected to significantly streamline payments, treasury and travel operations by eliminating many manual operations, provide for greater quantity assurance over processing operations and significantly improve timeliness and reliability of data produced. Greater coordination of and oversight for similar operations for payment authorization and processing of travel expense claims conducted throughout the Organization, will be ensured.

Change in Resources

5. No change in resources is proposed. However, internal shifts are effected within the same level of resources.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit	
Global	15 952	RP	9 975	AFF	15 952
Africa	0	Govt. Programmes	2 456		
Asia and Pacific	0	UNDP	2 484		
Near East	0	WFP	1 037		
Europe	0				
Latin America	0				
TOTAL	15 952		15 952		15 952

Programme 5.2.3 - Computer Services

Sub-Programme		1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
5.2.3.0	Computer Services	1 373	0	253	1 626	8.0	3 429
Programme 5.2.3 Total		1 373	0	253	1 626	8.0	3 429

* Increase (Decrease)

Nature of the Programme

1. The implementation of the Organization's programmes, in technical and economic as well as administrative areas, requires effective and efficient data processing/office automation support. The demand for such support has been increasing steadily as FAO's user community has experienced the benefits and capabilities of computer technology.

Objectives and Plan of Action

2. The overall objectives are to assist programme managers and technical staff in the effective use of modern information tools and techniques and facilitate the Organization's task of collecting, analyzing, interpreting and disseminating information, as well as relevant applications in administrative programmes, for increased efficiency and effectiveness of operations.
3. Precise objectives include the following:
 - the provision of services to assist all organizational units in applying office computing technologies to their work programmes; such services include planning, consulting, assistance in systems and application development, training, operational assistance and management of the computer center resources;
 - developing corporate and departmental strategies and plans for the effective use of computing technologies within the Organization;
 - maintaining data bases in different areas covered by the Organization;
 - the provision of fast data capture and recording and communication facilities; and
 - the provision of facilities to exchange information with external bodies.

4. In conclusion, computer applications will be employed for the benefit of technical programmes at both Headquarters and in the field, for enhanced administrative operations in finance and personnel areas and for improved communications and office environment. Consultants will be used, as needed, to provide the necessary outside expertise.

Change in Resources

5. The provision under this programme covers the direct cost of management of the Computer Services Centre, for which no change is proposed. The remaining costs of computer services are distributed under individual users' budgets.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region	Fund		Unit
Global	5 055	RP	1 626 AFC
Africa	0	Govt. Programmes	1 480
Asia and Pacific	0	UNDP	1 520
Near East	0	WFP	429
Europe	0		
Latin America	0		
TOTAL	5 055		5 055

Programme 5.2.4 - Personnel Services

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
5.2.4.1 Establishments and Entitlements	7 167	617	1 476	9 260	98.0	1 846
5.2.4.2 Recruitment Planning and Staff Development	5 911	(423)	1 125	6 613	72.0	1 319
5.2.4.3 Health and Medical Services	1 837	(194)	393	2 036	30.0	400
Programme 5.2.4 Total	14 915	0	2 994	17 909	200.0	3 565

* Increase (Decrease)

Nature of the Programme

1. The Organization requires efficient and effective personnel management, staff development and training, staff relations and staff benefits policies and other personnel services.

Objectives and Plan of Action

2. The objectives are to develop, recommend and administer personnel policies so that the Organization is served by competent and motivated staff.
3. This requires the following functions: personnel and human resources management and related staff development programmes; the application of Organization-wide job classification practices and standards; setting of salaries for jobs within the context of the UN Common System; selection and servicing of staff; administration of staff benefits; and setting of employee health standards.
4. Major benefits in terms of improved logistic support to the field and Headquarters programme activities are expected from the introduction of the computerized Personnel Management System (PERSYS), which becomes operational in 1989.

- Sub-programme 5.2.4.1: Establishments and Entitlements

5. Continuing emphasis will be given to support FAO's technical programmes by ensuring that fair and equitable systems of salaries/allowances, job classification, staff servicing and social security are maintained. The Organization will participate in inter-agency consultations and

will continue to work with the International Civil Service Commission. The Organization will undertake a review of General Service posts with a view to introducing revised classification standards for that category and also undertake a salary survey in 1990, in order to determine the best prevailing conditions of employment for the General Service category in Rome. Current systems and procedures will continue to be modified in line with the development of PERSYS. Additional areas in which personnel service can be improved through automation will be studied.

- Sub-programme 5.2.4.2: Recruitment Planning and Staff Development

6. Recruitment of staff in the Secretariat will be pursued with a view to ensuring a balanced representation of Member Nations, as well as providing equal opportunities for women. This requires diversified contacts with sources of potential recruitment.
7. The staff performance appraisal systems, which were introduced in the 1986-87 biennium, and include systematic reports on probationary periods, performance appraisal and achievement records for Headquarters and Regional Office staff and performance appraisal reports for field staff, should facilitate personnel management decisions on staff development and tenure of appointment.
8. In the staff development area, the programme planned for 1988-89 has had to be significantly curtailed. Some programmes have been suspended (including language training) and others have been reduced (including personal computer-user training and the application of video and computers to training). Training to support the introduction of FINSYS/PERSYS has been continued. The remaining training activities are being organized for divisions within the limits of their resources: word-processor training; training in project formulation; and briefing of national project directors. Resources permitting, resumption of training activities will be undertaken in 1990-91. Language testing is being maintained and the future policy for language training is being re-assessed.
9. Emphasis will be given to the updating of the Administrative Manual, taking account of the results of the management review. Participation in meetings and coordination with other UN system agencies on matters of common interest will continue through CCAQ and ICSC.

- Sub-programme 5.2.4.3: Health and Medical Services

10. The Medical Service provides clearances for appointment and assignments and, in addition to established periodic medical examinations, provides medical consultations and advice to the staff. In order to review the adequacy of medical facilities in the field, regular visits by FAO Medical Officers will continue to monitor the situation and alleviate, to the extent possible, the problems affecting field staff and their families.

Change in Resources

11. No change overall is proposed for the AFP Division.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region		Fund		Unit
Global	21 474	RP	17 909	AFP 21 474
Africa	0	Govt. Programmes	1 435	
Asia and Pacific	0	UNDP	1 191	
Near East	0	WFP	939	
Europe	0			
Latin America	0			
TOTAL	21 474		21 474	21 474

Major Programme 5.9 - PROGRAMME MANAGEMENT

Programme	1988-89 Approved Budget	Programme Change*	Cost Increase	1990-91 Approved Budget	Work Years	Extra- Budgetary Funds
5.9.1 General Affairs and Information	1 595	0	382	1 977	28.0	226
5.9.2 Administration and Finance	432	0	99	531	6.0	469
Major Programme 5.9 Total	2 027	0	481	2 508	34.0	695

* Increase (Decrease)

1. This major programme covers provisions for the management of Major Programmes 5.1 and 5.2.
2. Under Programme 5.9.1, the Office of the Assistant Director-General Department of General Affairs and Information (GI), develops, directs and ensures the implementation of the Organization's policies and programmes in governmental relations, public information, development support communication, Conference and Council arrangements, protocol, liaison, publications and library and documentation services, and provides administrative support to the four divisions of GI. The Assistant Director-General serves as the Secretary-General of the Conference and Council.
3. Under Programme 5.9.2, the Office of the Assistant Director-General, Administration and Finance Department (AF), is responsible for the Organization-wide administrative support services, including common services under Chapter 6, and for formulating and implementing administrative, financial, personnel and computerized data-processing policies and procedures.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region	Fund	Unit
Global	3 203 RP	2 508 AFD
Africa	0 Govt. Programmes	695 GIP
Asia and Pacific	0	
Near East	0	
Europe	0	
Latin America	0	
TOTAL	3 203	3 203

Chapter 6-COMMON SERVICES

Sub-Programme	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget	Work Years	Extra- Budgetary Funds
6.0.0.1 Premises	5 952	(385)	544	6 111	0.0	3 490
6.0.0.2 Cleaning, Utilities	3 975	43	391	4 409	0.0	658
6.0.0.3 Communications	1 993	477	246	2 716	0.0	330
6.0.0.4 Furniture, Equipment and Vehicles	1 881	27	195	2 103	0.0	311
6.0.0.5 Freight, Storage and Insurance	327	(162)	24	189	0.0	54
6.0.0.7 Regional Offices	2 177	0	131	2 308	0.0	0
Programme 6.0.0 Total	16 305	0	1 531	17 836	0.0	4 843

* Increase (Decrease)

1. This chapter covers the cost of common services at Headquarters, excluding staff costs of the Administrative Services Division budgeted under Programme 5.2.1, as well as similar expenditures in Regional Offices. These expenditures are mostly of a recurrent nature, to cover such items as rent, maintenance, utilities, communications including certain postal and pouch services, furniture and equipment, freight, storage and insurance, as well as non-recurring expenditures such as renovations to the Headquarters buildings. The latter will be kept to the minimum necessary. The provision continues to rely on the generous contribution of the Host Government towards the cost of commercially-rented office space. The savings effected during the present biennium by rationalizing the arrangements for contracted cleaning will be continued during 1990-91.
2. Electricity consumption is expected to rise because of the increasing computerization and mechanization, and the air-conditioning needed by some installations for their optimum performance. The introduction of new computerized telecommunication systems, while improving efficiency, will push up costs at least initially. The greater speed and efficiency of the new telecommunication technologies will result in Organization-wide benefits, which however will not be reflected in actual financial savings under this programme.

1990-91 ESTIMATES BY REGION, FUND AND UNIT (\$000, All Funds)

Region	Fund		Unit	
Global	20 371	RP	17 836	AFS
Africa	705	Govt. Programmes	600	Regional Offices
Asia and Pacific	816	Other TF	2 500	
Near East	0	UNDP	400	
Europe	0	WFP	1 343	
Latin America	787			
TOTAL	22 679		22 679	

Chapter 7-CONTINGENCIES

Chapter	1988-89	Programme Change*	Cost Increase	1990-91 Budget	Work Years	Extra-
	Approved Budget					Budgetary Funds
7. Contingencies	600	0	0	600	0.0	0
CHAPTER 7 TOTAL	600	0	0	600	0.0	0

* Increase (Decrease)

1. The contingencies provision is intended to meet unforeseen, essential expenditure and requests from external bodies for unplanned work.
2. The current level of the contingencies provision was set by the Conference as far back as 1979 for the 1980-81 biennium, when the approved total budget level was US\$ 278 million. Nevertheless, no change is proposed for the 1990-91 biennium.

Chapter 8-TRANSFER TO TAX EQUALIZATION FUND

1. The Tax Equalization Fund was established as of 1 January 1972.
2. In line with the practice followed since 1972-73, the 1990-91 budget is presented on a gross basis, by adding to the total effective working budget an appropriation for staff assessment.
3. This will have no effect on the contributions payable by Member Nations not levying tax on FAO staff emoluments: their full share of the staff assessment appropriation is refunded, by deduction from the contributions payable by them.
4. Member Nations which levy tax on FAO staff emoluments will have their shares of the appropriation for staff assessment reduced by the amount estimated to be required to meet claims from the FAO staff concerned for tax reimbursement.
5. The amount of US\$ 69 300 000 provided for 1990-91 represents the difference between gross and net salary costs based, as far as Professional staff and above are concerned, on the salary scales adopted by the UN General Assembly at its Forty-second Session.
6. The application of credits arising from the Staff Assessment Plan against Member Nations' assessments will be presented after the Conference has decided on the scale of contributions to be applied for 1990-91.

ANNEX I

PROGRAMMES BY REGION

INTRODUCTION

1. This Annex presents FAO programmes for each of the five regions: Africa, Asia and the Pacific, Europe, Latin America and the Caribbean, and the Near East.
2. The narratives present the regional setting, medium-term objectives and plan of action for each major programme area. They give particular prominence to the planned contributions from Regional Offices and/or Joint Division. A table of budgetary estimates is included for each region.
3. The narratives do not purport to be exhaustive; they highlight the main specific regional problems and FAO's response to them. For the sake of brevity, as in previous Programme of Work and Budget documents, they concentrate on substantive activities under Chapter 2, Agriculture, Fisheries and Forestry.
4. The budgetary allocation for 1990-91, by region, is shown in the following table:

TABLE A

SUMMARY OF 1990-1991 ESTIMATES BY REGION AND PROGRAMME (\$000)

Programme	Global	Africa	Asia and Pacific	Europe	Latin America / Caribbean	Near East	Total
1 General Policy and Direction	44 615	314	356	200	355	200	46 040
2 Technical and Economic Programmes	104 196	443 539	194 437	15 461	92 359	132 974	982 966
2.1 Agriculture	81 274	337 861	140 425	12 067	1 013	99 579	738 458
2.1.1 Natural Resources	5 232	55 623	20 262	340	10 827	23 446	115 730
2.1.2 Crops	9 853	109 501	39 864	1 448	9 797	29 530	199 993
2.1.3 Livestock	4 275	30 774	15 260	1 663	10 523	15 534	78 029
2.1.4 Research and Technology Development	11 156	6 840	7 350	984	4 013	3 918	34 261
2.1.5 Rural Development	5 789	85 027	30 643	4 546	16 080	12 044	154 129
2.1.6 Nutrition	6 599	5 435	5 983	307	2 971	2 243	23 538
2.1.7 Food and Agricultural Information and Analysis	20 837	14 477	8 208	767	2 902	1 733	48 924
2.1.8 Food and Agricultural Policy	14 817	28 857	11 560	1 269	9 126	9 242	74 871
2.1.9 Programme Management	2 716	1 327	1 295	743	1 013	1 889	8 983
2.2 Fisheries	13 143	43 720	20 234	1 554	916	14 951	103 010
2.3 Forestry	9 779	61 958	33 778	1 840	633	18 444	141 498
3 Development Support Programmes	4 592	52 928	25 819	1 380	20 538	16 066	121 323
4 Technical Cooperation Programme	0	28 462	14 909	1 355	12 198	10 843	67 767
5 Support Services	101 080	920	1 241	272	3 505	829	107 847
6 Common Services	20 371	705	816	0	787	0	22 679
7 Contingencies	600	0	0	0	0	0	600
Grand Totals	275 454	526 868	237 578	18 668	129 742	160 912	1 349 222

TABLE B

SUMMARY OF 1990-91 ESTIMATES BY REGION AND FUND (\$000)

Region	Regular Programme				Extra-Budgetary	Total
	Headquarters	Regional Offices	Country Offices	Total		
Global	235 628	0	0	235 628	39 826	275 454
Africa	97 381	11 681	24 846	133 908	392 960	526 868
Asia and Pacific	56 361	10 737	10 490	77 588	159 990	237 578
Europe	6 663	4 409	552	11 624	7 044	18 668
Latin America	42 023	11 995	11 042	65 060	64 682	129 742
Near East	32 735	9 635	8 282	50 652	110 260	160 912
TOTAL	470 791	48 457	55 212	574 460	774 762	1 349 222

AFRICA

I. AGRICULTURE

The Regional Setting

1. The Africa Region continues to face serious problems in meeting its economic and social development objectives. The generally fragile condition in which the region finds itself is aggravated by adverse international terms of trade and heavy debt burdens. In respect of the food and agricultural sector itself, these problems are compounded by chronically weak production bases for agriculture, deficiencies in supportive structures and policies and erratic weather.
2. In the 1990-91 biennium, in the wake of the study "African Agriculture: the next 25 years", FAO will need to respond to the urgent demands of its African member countries, and support their efforts to:
 - adjust and reform domestic policies and programmes to tackle the massive socio-economic problems in the rural areas;
 - remove the technical and infrastructural bottlenecks which hamper rapid productivity gains and "take-off" of the food and agriculture, forestry and fisheries sectors.
3. FAO's response will also be guided by the recommendations of regional plans of action such as the UN/PAAERD. It will cut across all programme areas, in the light of the problems specific to each, as illustrated in the following paragraphs.
 - Natural Resources
4. Despite overall poor quality of soils, substantial land resources are available in Africa for agricultural expansion. However, these resources are not only under-utilized; they are not optimally managed. There is a lack of comprehensive and reliable information on their nature and distribution. Lack of trained manpower and insufficient awareness of improved production systems are ever-present constraints. More efficient and rational utilization of these resources must be achieved, taking into account climatic and soil conditions and the uneven distribution of arable land.
5. Efforts at increasing the use of fertilizers have so far been limited. Very often, application rates remain too low to prevent declining fertility. Measures to support increased fertilizer use and security of supply as well as development of integrated plant nutrient systems are required in most areas.
6. Irrigation expansion is a possible response to erratic rainfall and recurrent drought. It is hampered, however, by high investment costs and lack of manpower for efficient organization and management of irrigation schemes. The amount of cultivated land under irrigation is still small in most countries. In 1985, only 2 percent of arable land in sub-Saharan Africa was under some form of irrigation.

- Crops

7. For more than two decades, the rate of increase in food and cash crop production has lagged behind population growth in Africa. Food imports constitute a heavy drain on overall development including agricultural development itself.
8. Although in some regions expansion of cultivated area is possible, raising yields per unit of land area will need to contribute, in the most part, to the required increase in production. However, crop yields are generally very low owing to declining soil fertility, soil degradation, and the low level of technology applied by farmers who have limited or no access to inputs such as improved seeds, fertilizers, pesticides, irrigation water, machinery, etc.
9. Research and extension structures regarding food crops, especially staples such as sorghum, millets, and roots and tubers are still relatively weak. On-station research results are not always adequately tested for their applicability under typical farming conditions and this prevents wide acceptance by small-scale farmers. In addition, there is insufficient trained manpower for the planning and execution of crop development programmes, including the efficient use of inputs, which severely constrains agricultural development.
10. Food crop production also suffers from the deterioration of the plant health situation in most African countries and the vulnerability of African agriculture to periodic upsurges of pests such as locusts, grain-eating birds, grasshoppers and armyworms. The extensive crop losses generally associated with these are compounded by the inadequacies or inexistence of national plant protection services.
11. Post-harvest crop losses during drying, threshing, storage, transportation and primary processing range from 10 percent to 40 percent, being lowest for cereals and highest for perishables such as fruits and vegetables. The reduction of these losses would significantly increase food supplies and improve the nutritional value of foodstuffs, without increasing the cropped area.
12. Agro-industrial activities developed so far in the region have mostly involved primary processing of cash crops for export and production of goods from mainly imported raw materials. The technologies and practically all machinery and other equipment used are imported. This unsatisfactory state of continuing external dependence is compounded by the low utilization rates of installed capacity, due to lack of spare parts and insufficient maintenance and management skills, as well as bottlenecks in transport and communication systems.
13. These challenges to the development of agro-industries in Africa were addressed by the Fifteenth FAO Regional Conference. This Conference called for the development of an indigenous African food industry and made a number of recommendations in this regard which will require follow-up action during the 1990-91 biennium.

- Livestock

14. The livestock sector in most countries in the region has benefited from the good rains in the recent period and the consequent increase in pastures and watering points. Vaccination campaigns against rinderpest

and contagious bovine pleuro-pneumonia in most countries have also drastically reduced cattle mortality rates. FAO contributed to the control of African Animal Trypanosomiasis through emergency and development projects, training activities, advice to governments and dissemination of technical information.

15. Nevertheless, animal production continues to be low and far from meeting the demand. Tsetse infestation still covers an area of about 10 million sq. km. spreading over 37 countries. Other major constraints to animal production are poor animal husbandry practices, inadequate feeding and prevalence of other diseases such as parasitic diseases, tick-borne diseases and African swine fever. Unexpected outbreaks of pest infestations such as by the American screwworm fly require massive and timely external assistance.

- Research and Technology Development

16. Compared to other regions, Africa has so far benefited the least from improvements in food and agricultural technology. Most improved technologies have remained beyond the reach of small-scale farmers or have not been well adapted to their socio-economic and environmental conditions.
17. Africa's technology gap is primarily due to weak research structures and research management, and insufficient cooperation among countries. These negative factors impeding agricultural development in Africa call for more determined governmental action towards viable agricultural research and technology systems and regional cooperation on a TCDC basis.

- Rural Development

18. Beyond problems of production, the rural scene in Africa is beset by problems of unemployment; inadequate education, social and cultural services; and more generally by the lack of technical and economic opportunities.
19. Agriculture itself calls for more determined action to provide incentives, facilitate access to inputs, redress the weaknesses in agricultural support institutions and the deteriorating rural infrastructures. These "rural dimensions" of weak national economic and planning efforts are further complicated by the special nature of rural Africa problems and of rural-urban relationships in the region, including heavily distorted terms of trade between rural and urban areas.
20. The struggle against rural poverty must be based on further investigation and understanding of the socio-economic and other dimensions of balanced rural development. There is a vast and continuing requirement to assist governments, development institutions and rural people to design and implement appropriate rural development policies, programmes and projects.
21. Besides overall efforts towards the strengthening of the economic base for small farmers, particularly women producers and rural youth, through the promotion of alternative farm and non-farm employment opportunities, there are rural development concerns specific to Africa such as complex issues of settlement and land tenure, the rehabilitation of drought-affected areas, the settlement and/or development of oncho-freed zones and other zones recently freed from human or animal diseases. In these and other issues, the direct participation of rural people, through their own organizations, will need to be encouraged.

22. The Fifteenth FAO Regional Conference for Africa recommended improved access to credit as a prerequisite for accelerated rural development, including expanded farm mechanization. Access to credit is an essential condition for rural youth to remain and produce in the rural areas. However, rural savings are grossly inadequate and the rural financial institutions, both formal and informal, are generally inefficient.
23. The agricultural education and extension services in Africa need to seek the increased relevance and impact of agricultural training at all levels, but especially at the intermediate level. The range of necessary actions includes the development and application of low-cost methods for extension communication; the wider dissemination of appropriate training materials; and improvements in the organization and administration of extension services.

- Nutrition

24. The status of nutrition in Africa remains grossly inadequate. Beyond the known problems of erratic food supplies, unbalanced diets, man-made calamities and civil strife, it is pertinent to stress that many countries are pursuing adjustment processes, often leading to cuts in government subsidies, general declines in purchasing power and in social services. The lower income groups have been the most adversely affected.
25. The prospects for the poorer countries which continue to face the combined problems of low nutritional levels, rapidly rising populations, inadequate growth in both food production and incomes and the impossibility of meeting their food gaps through commercial imports, will call for imaginative measures and nutrition interventions to ensure minimum nutritional standards for most vulnerable groups.

- Food and Agricultural Information Analysis and Policy

26. Agricultural data systems in Africa cannot as yet provide reliable and timely statistics for agricultural planning and need considerable external assistance for their improvement. Also, in most countries of the region, effective early warning systems are yet to become a reality.
27. In recent years many African countries have embarked on wide-ranging macro and micro policy reforms to improve the performance of the sector as a whole. But to avoid undesirable adverse social, economic and political consequences, such policy reforms need to be carried out after a careful assessment has been made of the likely impact of the various policy measures and instruments proposed. Reforming countries need advice and assistance on how to undertake these policy impact assessments that are essential for negotiating stabilization and structural adjustment programmes as well as to prepare for policy review meetings. Improvement of policy analytical and planning capability in African member countries is also an essential priority.
28. In the formulation of agricultural development plans, a major obstacle to assisting smallholders is the inadequate knowledge of traditional agricultural production and farming systems. This knowledge can only be gained through more precise and systematic micro-economic analysis. This is particularly critical in appraising the suitability of input packages for the traditional agricultural system. Research is needed on the small farmers' response to policy and economic changes and interventions. However, the number and competence of local micro-analysts is seriously short of requirements, and the institutional frameworks for integrating micro-findings into macro-analyses and planning also need to be reviewed.

Medium-term Objectives

29. The main objectives for the Africa Region are to assist member countries in:
- the assessment, planning, management and conservation of land and water resources, e.g. through dissemination of information and advice on improved land, water and fertilizer use;
 - the implementation of national programmes in soil survey, conservation and testing, and land evaluation;
 - the improvement of farming methods and production systems, as well as plant protection and pest control infrastructures;
 - monitoring and combatting animal diseases and developing livestock production systems including small ruminants;
 - developing viable research institutions, e.g. through the identification of constraints in the application of available technologies in food production;
 - the development and implementation of rural development programmes and projects, the enhancement of women's participation in rural activities, the provision of efficient extension, education, marketing and credit services;
 - the assessment of the nutritional impact of agricultural policies, and the planning and implementation of food and nutritional improvement programmes;
 - the improvement of food and agricultural data collection and analytical and planning capabilities for food and agricultural policy formulation and appraisal;
 - the policy analysis in connection with stabilization and structural adjustment programmes.

Plan of Action

Natural Resources

30. A major priority will remain to assist member countries in preparing comprehensive assessments and plans of land and water resources. In addition, requests for advice on improved land and water use techniques and fertilizer usage will be met. An ongoing activity is the support to regional and national programmes in soil correlation, survey, conservation and testing.
31. Member countries in the region are also likely to require substantial technical assistance on integrated watershed management, organic recycling methods, development of lowlands and small-scale irrigation, the organization of field demonstrations of rational techniques for use of irrigation water, etc. The profitability of expansion of irrigated agriculture will be assessed according to specific contexts, and the incorporation of built-in conservation measures will be sought into land and water development projects.

32. Regional technical cooperation networks dealing with wetland development and management, soil correlation, biogas production and water lifting devices will permit the exchange of experiences and technical information among concerned institutions. Advisory services will continue to be provided to and collaboration ensured with intergovernmental organizations and national institutions concerned with the rational utilization of natural resources in the Africa Region.

- Crops

33. The Regional Office will continue to sponsor crop trials and on-farm demonstrations and provide assistance to member countries in the organization of in-service training courses at the country level for the benefit of extensionists. In view of the persistent threats from plant pests and the general weaknesses of plant protection infrastructures, it will be essential to maintain assistance to member countries and close collaboration with intergovernmental and other local organizations in the monitoring and control of migratory pests, particularly locusts, grasshoppers and other pests such as armyworms. Integrated Pest Management (IPM) approaches will be further developed and promoted for wider application throughout the region. Sub-regional technical cooperation networks on plant quarantine, pesticide management and weed control will be established and supported. A number of training activities for extension workers and farmers, especially women, on improved post-harvest and food processing technology, are planned.

- Livestock

34. Assistance will be provided on the utilization of fodder banks and agro-industrial by-products in animal feeding systems. In the animal health area, close monitoring will be ensured of the implementation of the Pan-African Rinderpest Campaign (PARC). The further strengthening of national capabilities for tsetse and trypanosomiasis control will also be sought. Also, the establishment of a regional technical cooperation network of veterinary laboratories will be supported. In the meat and dairy sector, another regional technical cooperation network will be established to deal with meat preservation, e.g. smoking, salting and drying technologies. Artificial insemination programmes in the region will be evaluated and assistance given for their strengthening.

- Research and Technology Development

35. The assessment of the food and agricultural technologies developed by international and national research institutions and their applicability will represent a core activity. Their compatibility with traditional technologies will be tested. This continuing assessment will also permit the determination of priority areas of research to bridge remaining technological gaps. The establishment of a cooperation network on agricultural research management and policy formulation will be supported. This will, inter alia, facilitate understanding of constraints in the application of available technologies in food production.

- Rural Development

36. Most countries are in dire need of strengthening their rural development planning and the key institutions contributing to rural development. The latter include rural credit institutions, extension and agricultural training services and agricultural marketing boards. A technical

cooperation network on Agricultural Project Management (AGPROMAN) will be established to deal with exchanges of experiences and methodologies in the field of agricultural and rural development and project management. It will also be necessary to continue to analyse and monitor rural poverty dynamics in Africa in relation to various economic, social and technical factors. The results will be published in order to guide policymakers and rural programme managers.

37. National institutions will receive technical and logistical assistance in developing training programmes for extensionists, and in the preparation of educational materials and visual aid packages. Requests for advice on policy formulation and planning, aiming at the adjustment of food marketing systems will be met, especially for food crops of regional significance such as roots and tubers, plantains, maize and sorghum. National and sub-regional training workshops on group marketing development for small farmers, especially cereal banks, will be organized.

- Nutrition

38. Assistance will be provided in the establishment or refinement of data bases at national level which could reliably be used for assessing the nutritional impact of agricultural policies, and in the planning and implementation of specific nutrition interventions. The introduction of food and nutritional considerations into the design and planning of agricultural and rural development projects will be pursued. In-service training courses will be organized for food specialists and nutrition planners. The introduction of food science will be promoted in educational and research programmes of national institutions and universities. Technical backstopping will be ensured of projects for the development of food standards and food quality control infrastructures.
39. Regional technical cooperation networks on food standards and food quality control will be supported as well as the development of formulae for locally-based weaning foods. Activities are carried out in close collaboration with WHO and UNICEF through the Joint FAO/WHO/UNICEF inter-agency Food and Nutrition Surveillance Programme (IFNS) for the collection of food and nutrition data and on programme planning, monitoring and evaluation. The Joint FAO/WHO/OAU Regional Food and Nutrition Commission for Africa will continue to provide a framework for cooperation among the three agencies and other international organizations in the dissemination of information on food and nutrition.

- Food and Agricultural Information and Analysis

40. The core of the programme is constituted by a range of supportive activities for improved agricultural data collection and analysis. Particular emphasis will be placed on national and sub-regional forecasting and early warning systems. Users/producers' dialogues on statistical information will be fostered through national workshops and other mechanisms. Further use of micro-computers for processing agricultural data will be promoted in member countries. The effective participation of African countries in the 1990 World Census of Agriculture will remain a paramount concern. The identification and effective application of Policy as well as needs-oriented socio-economic indicators will be pursued.

- Food and Agricultural Policy

41. The main activity will be the training of sectoral planners and other officials responsible for food and agricultural policy analysis, as well as programme and project formulation. This will involve a joint effort by Headquarters, RAFR and the Joint FAO/ECA Division (JAFR). Assistance in policy formulation will build on the guidelines and findings of the UN/PAAERD and the FAO study "African Agriculture: the next 25 years", and other regional plans. Requests from member countries for the evaluation of the implications on agricultural policies and programmes, and for the integration of sectoral concerns into overall macro-economic frameworks will be met. In particular, the consequences on the agricultural sector of international policy decisions and structural adjustment packages will be analysed, upon request of concerned governments. Advice will be provided on the formulation of short-term recovery programmes and agricultural prices.

II. FISHERIES

The Regional Setting

42. Fish production in Africa has not evidenced much change during the last decade. Several factors account for this, including the low priority, inadequate support and insufficient allocation of resources to the fisheries sector, the lack of well-trained and experienced manpower, the low level of technology and the high incidence of post-harvest losses. The fisheries sector suffers from the lack of dynamic policies, strategies and programmes both at national and at regional levels. The absence of strong and effective regional intergovernmental mechanisms for fisheries, including appropriate technical cooperation networks, is also a major contributory factor to the weak performance and slow growth rate of the fisheries sector.
43. Action by governments and at international level is necessary on a broad front: the improvement of statistics and information on fish resources, aquaculture development, support to artisanal fisheries communities, inter-country cooperation, the formulation of sound fisheries policies and plans, etc.

Medium-term Objectives

44. Medium-term objectives of particular regional importance are:
- provision of policy advice and technical inputs in connection with the implementation of the strategy and the associated Programmes of Action adopted by the World Fisheries Conference;
 - improvement of national systems and methodologies for data collection and analysis; active exchange and dissemination of information on available fisheries training, education and research facilities;
 - development of inland fisheries and aquaculture;
 - promotion of the role of fish in human nutrition as well as of regional cooperation in fish technology so as, inter alia, to reduce post-harvest losses;

- improvement of the socio-economic conditions of artisanal fishermen and their communities;
- exchange and promotion of fisheries trade information through the Regional Fish Trade Information and Cooperation Services for Africa (INFOPECHE).

Plan of Action

45. A number of supportive activities are planned for the improvement of fisheries information and statistical data bases at country and regional levels, in particular through the collection of data on available fisheries training and research facilities and commercial activities in Africa. Advanced data collection methodologies will be the main focus of the planned training seminars on fisheries statistics. The provision of support to cooperative research in fish technology between national institutions will be pursued, in particular through active inter-country exchanges on fish technology information and experience.
46. Other activities include the promotion of integrated aquaculture development and of regional cooperation among national fisheries institutions and regional bodies and groupings with interest in fisheries. Requests from member countries for the preparation of national fisheries development plans will be met, taking due account of existing regional programmes, and of the recommendations and decisions taken at the last sessions of FAO Regional Fisheries Committees/Commissions (CIFA, CECAF, IOFC) and their subsidiary bodies.

III. FORESTRY

The Regional Setting

47. The forestry sector in the Africa Region presents a broad diversity of situations, problems and solutions. A general problem, however, is that deforestation is progressing at an alarming rate due to pressures for fuelwood and livestock grazing. The area under forest cover is 740 million hectares of which 235 are closed forest and the rest are open woodlands. In addition, there are some 600 million hectares of fallow and shrubs. The estimated rate of deforestation is over one million hectares per year. Furthermore, the region has an overall deficit in forest products; it imports over 3 million cubic metres of sawn timber while exporting only 800 000 cubic metres.
48. Key problems as they apply to different parts of the region are:
- In the semi-arid and arid areas, there is increasing desertification due to population pressure and unsustainable grazing or cropping systems.
 - The savannas are also threatened by land clearing for cropping. The savanna countries have, in some cases, created fast-growing forest plantations, the products of which their national markets are, so far, unable to absorb. The savannas are the habitat of rich wildlife resources which currently support a thriving tourism industry. This lucrative industry is threatened as settlement extends to hitherto protected wildlife lands.

- In the highlands - whether in North Africa, on the Fouta Djallon, in the horn of Africa, or in Eastern/Southern Africa - it is essential to maintain forest vegetation to protect soil and water resources. Yet, population pressures are leading to rapidly diminishing vegetation in all key watersheds and highland zones, with disastrous consequences, locally as well as downstream.
- Finally, in the closed forest zone, the main preoccupation is with export industries. These are currently faced with: the stagnation of traditional markets; difficulties to diversity to new outlets (especially within Africa and the developing world); inadequacy of investment; and incapacity of the industry to adjust to dwindling forest resources and their changing quality. Also, these industries have, so far, not adequately benefitted the local rural communities and thus failed to secure their voluntary participation in resource conservation.

Medium-term Objectives

49. The objectives are mainly to:

- assist in the collection, evaluation and dissemination of forest data and information;
- assist in training of national personnel and support sub-regional and country activities to combat desertification;
- promote afforestation programmes for fuelwood and the multipurpose management of the vegetation cover in dryland areas;
- strengthen regional cooperation in forestry through network arrangements;
- support measures permitting fuller involvement of rural communities in the protection and management of forest resources.

Plan of Action

50. The Tropical Forestry Action Plan (TFAP) will provide the overall framework for forest sector work, development projects and technical assistance. This will make it possible to give recognition to national circumstances and associated problems and specific solutions in the preparation of national action plans under the TFAP. This framework also permits coordination of donor support, both in terms of financial resources as well as development approaches. The Regional Office will cooperate with headquarters to adapt the TFAP to local conditions in the region and assist in the preparation of national plans.
51. In view of serious concerns about natural resource degradation and deforestation, the collection of quantitative and qualitative data on the resource base in the region will remain essential, including cooperation with the global project: "1990 Assessment of Tropical Forest Resources".
52. The need for strengthened forestry research has been emphasized by the countries concerned and is one of the major themes of the TFAP. A number of surveys and discussions at the African Forestry and Wildlife

Commission have revealed the urgency of pursuing action on three fronts: (i) strengthening national research capabilities; (ii) establishment of research networks; and (iii) improving cooperation with international research institutions.

53. Information dissemination and training in wildlife management will be supported through the regional Bulletin "Nature et Faune", and networking arrangements between concerned institutions as follow-up to the Harare Symposium and Conference on Wildlife Management in Sub-Saharan Africa.
54. In recognition of the multiple contribution of forestry to environmental stability and combatting desertification, cooperation and liaison will be closely maintained with national, regional and international institutions active on these aspects and more generally dealing with the management of forest resources. Afforestation programmes for fuelwood and the multipurpose management of vegetation cover in dryland areas will be formulated and their implementation supported. The contribution of forest resources-based cottage industries to rural employment and income generation will receive full attention through the design of national policies in this regard. The improvement of data collection systems on forest products trade in the Sahelian countries will be sought, together with the promotion of regional cooperation in forest investment and institutions.
55. The implementation of regional cooperative programmes on fuelwood for rural development will be supported through a corresponding technical cooperation network. A number of activities and the formulation of specific country projects are planned, dealing with important aspects of forestry (agro-forestry integration, community forestry, etc.). It is also planned to establish a regional technical cooperation network on rural energy in Africa.

REGIONAL ESTIMATES BY PROGRAMME (\$000, All Funds) - AFRICA

Programme	Regular Programme				Extra-Budgetary	Total
	Headquarters	Regional Offices	Country Offices	Total		
1.1.1.7 Regional Conference	314	0	0	314	0	314
2 Technical and Economic Programmes	(51 874)	(10 056)	(0)	(61 930)	(381 609)	(443 539)
2.1 Agriculture	(40 359)	(8 638)	(0)	(48 997)	(288 864)	(337 861)
2.1.1 Natural Resources	4 736	795	0	5 531	50 092	55 623
2.1.2 Crops	5 913	1 693	0	7 606	101 895	109 501
2.1.3 Livestock	5 074	1 020	0	6 094	24 680	30 774
2.1.4 Research & Technology Development	3 809	266	0	4 075	2 765	6 840
2.1.5 Rural Development	7 770	1 851	0	9 621	75 406	85 027
2.1.6 Nutrition	3 941	387	0	4 328	1 107	5 435
2.1.7 Food and Agricultural Information and Analysis	3 672	582	0	4 254	10 223	14 477
2.1.8 Food & Agricultural Policy	5 202	1 189	0	6 391	22 466	28 857
2.1.9 Programme Management	242	855	0	1 097	230	1 327
2.2 Fisheries	7 350	843	0	8 193	35 527	43 720
2.3 Forestry	4 165	575	0	4 740	57 218	61 958
3 Development Support Programmes	(16 731)	(0)	(24 846)	(41 577)	(11 351)	(52 928)
3.1 Field Programme Liaison and Development	3 231	0	0	3 231	4 826	8 057
3.2 Investment	13 121	0	0	13 121	5 456	18 577
3.3.1 FFH/AD	379	0	0	379	0	379
3.4 FAO Representatives	0	0	24 846	24 846	1 069	25 915
4 Technical Cooperation Programme	28 462	0	0	28 462	0	28 462
5 Support Services	(0)	(920)	(0)	(920)	(0)	(920)
5.1.1 Public Information	0	219	0	219	0	219
5.2.1 Administrative Services	0	701	0	701	0	701
6 Common Services	0	705	0	705	0	705
TOTAL	97 381	11 681	24 846	133 908	392 960	526 868

ASIA AND THE PACIFIC

I. AGRICULTURE

The Regional Setting

1. In respect of food and agricultural development, the countries of the Asia-Pacific Region present a broad diversity. While, as a whole, in recent years the developing countries in the region have experienced a fairly high rate of growth in agricultural production, there have been marked differences in performance of individual countries. There are still a number of countries where the tempo of agricultural production needs to be accelerated. Moreover, in many countries of the region, further progress in agricultural production is constrained by lack of effective demand. This is substantially a reflection of insufficient progress in equity-oriented rural development and a consequent lack of effective purchasing power among the large numbers of rural poor. Thus the region faces a complex set of problems. These are highlighted below.

- Natural Resources

2. Developing countries of the Asia and Pacific Region presently account for around 53 percent of the world's total population, 72 percent of the agricultural population, and only 27 percent of the world's arable and permanently cropped land. While the annual rate of population growth for the developing countries of the region was 1.8 percent in 1980-85, the rate of annual increase of cultivated land was only 0.3 percent. Although the ratio of agricultural population to total population has declined from 69 percent in 1976 to 63.4 percent in 1986, the absolute numbers of rural populations continue to rise. As a consequence, the ratio of cultivated land to agricultural population for developing countries of the region is around 0.27 ha/caput, as compared with 1.62 ha/caput for the rest of the world. This meagre land-man ratio is a clear indicator of land scarcity in the region.
3. In many countries of the region, opportunities for bringing new land into cultivation are virtually exhausted as much of the presently non-cultivated land is affected by special management, infrastructure and conservation problems. As an illustration, for the region as a whole, some 230 million hectares are estimated to suffer from severe soil fertility limitations; a further 174 million hectares consist of salt-affected soils. In many countries of the region, shifting cultivation is still widely practiced covering an estimated 75 to 120 million hectares and resulting in the cultivation of more marginal areas, such as land with excessive slopes, semi-arid areas, and land with unreliable rainfall. This leads inevitably to the depletion of forest resources, land degradation and ecological damage. In irrigated areas, improper water use and management often tend to reduce production below potential levels and increasingly cause land to suffer from waterlogging, salinity and alkalinity. The latter problems reportedly affect about 20 million hectares of irrigation command areas in several South and East Asian countries.

4. Developing countries in the region are aware of the need for quantification of available land and water resources. Optimum utilization rests on accurate assessment of water resources and irrigation potential and integrated land use planning. While some progress in this direction has been made by a number of countries, it is not yet widespread.
5. In the absence of land reserves for cultivation, the only option in most countries is to intensify use of cultivated land. However, changes in land management and technology are required to avoid land degradation. Consequently, there is a need for production systems, including elements of agro-forestry, which incorporate the efficient use of land, water and inputs on a sustainable and environmentally sound basis.
6. The region continues to witness an increasing use of mineral fertilizers. Average use of mineral fertilizers by developing countries of the region has now reached approximately 93 kilogrammes per hectare, above world average. However, the rate is still below 20 kilogrammes per hectare in several countries. Moreover, the growth rate in fertilizer use has generally slackened. Other factors are the decline in use of organic fertilizers, particularly green manures, and the continuing imbalance in the consumption of the main fertilizer nutrients, coupled with the incidence of secondary and micro-nutrient deficiencies, as experienced in a number of countries. Continued efforts are, therefore, required to improve the efficiency and economics of fertilizer use, especially in rainfed areas, including the adoption of integrated plant nutrition systems combining mineral fertilizers, organic nutrient sources and microbial inoculants, together with optimum soil and crop management practices.
7. Crop production is highly dependent on water control and irrigation in many countries of the region. In 1986, the area under irrigation in developing countries was about 132 million hectares. It does not appear feasible to substantially increase this area in the short and medium term. Consequently, there is need to shift attention from investment in large-scale physical irrigation facilities and structures to the optimal management and rehabilitation of existing irrigation systems. The latter is to be achieved primarily through training in improved water management down to the farm level, in order to reduce inefficient and costly practices. In rainfed areas, although some advances have been made in rain harvesting and small-scale water conservation technologies, improved efficiency in the use of water lifting devices is desirable. Indeed, small-scale lift irrigation has expanded markedly in the region during the last decade and now represents about 30 percent of the total irrigated area in Asia. However, in several countries this rapid expansion gives cause for concern in terms of over-exploitation of ground water resources, adverse environmental effects, increased demand on fossil energy, and inequity between rich and poor farmers.

- Crops

8. About 70 percent of the cropped area in the region is still rainfed. Crop production under such conditions is highly vulnerable to recurrent floods and droughts. Further, the yields in rainfed areas are not only half to one-third of those in irrigated areas but experience wide fluctuations from year to year, thus exacerbating food and nutrition insecurity and disparities among farming areas. The already fragile agro-ecological balance of rainfed areas is deteriorating fast. There

is much scope for raising productivity as well as restoring sustainability of production in rainfed areas through improvement of cropping patterns and crop management practices.

9. In view of the limited scope for increasing the cultivated area in the region, the future increased demand for food will have to be met primarily through increased yields. Despite considerable improvement in the past decade, average yields of cereal crops are still relatively low in several countries of the region. This calls for determined measures, including development and transfer of appropriate production technologies.
10. Another way to increase the total production per unit area is by increasing the cropping intensity. In effect, cropping intensity in most countries, even in those which have relatively higher percentages of irrigated areas, is rather low. With the increasing availability of suitable varieties of several crops, it is possible to develop multiple cropping patterns. For this, location-specific agronomic practices through on-farm trials need to be developed.
11. The domestic supply of edible oils in many countries is based predominantly on annual oilseed crops, such as groundnut, rapeseed-mustard, soybean, sunflower, safflower, etc.. Some have remained major importers of vegetable oils to meet their domestic demand. This is because the productivity of the annual oilseed crops has been low and almost stagnant over the years. High-yield technologies are now available, but have not been widely adopted in the region.
12. Among perennial oilseed crops, coconut is particularly important as a small farmer crop and a major source of food and income in the island countries of the region. Exotic dwarf coconut hybrids which have been recently promoted, have proved vulnerable to diseases and pests and are often not responsive to low-input conditions of resource-poor small farmers. Efforts should be intensified to develop hybrid as well as open-pollinated varieties based on local agronomic conditions. Some countries willing to promote indigenous production of oilpalm suffer from lack of suitable planting materials, appropriate production and processing technology, and adequately trained manpower. On the other hand, the palm oil exporting countries are facing tough competition on the international markets to maintain and possibly increase their share of export, and need to improve their productivity.
13. Among food crops, while production of wheat and rice, the foremost staples, has moved up satisfactorily, progress in production of other crops, often referred to as "secondary crops", such as pulses and coarse grains, has been slow. Pulses production in the region has remained almost stagnant during the past 25 years or so, causing a significant drop in per caput consumption of these protein-rich foods. Imports of coarse grains for feed have steadily been increasing in several countries. There is a clear need for generating and adopting improved production practices for pulses, coarse grains and other secondary crops.
14. Roots and tubers constitute staple foods in the Pacific Islands, but their contribution to the total daily calories intake has been declining in recent years. These crops, however, have very high yield

potential and are ideally suited to the agro-climatic conditions of the island countries. Further, some of the root crops, such as taro, are emerging as an important export crop for some islands. Yet, these crops have remained neglected by research.

15. Crop diversification is a major policy concern of agricultural planners as it permits the small farmers to (i) reduce risk, (ii) increase employment and income, and (iii) improve nutrition. In the past, there has been, of necessity, preoccupation with intensification of cereal crops. In some cases, cereal crops occupy areas which are not suitable for them. In addition, the potentials of fruits and vegetables have remained under-exploited and there is a need to strengthen research efforts on and provide support to horticultural crops. There is also scope for the expansion of high-value labour-intensive crops such as spices, medicinal plants, and mulberry for sericulture. Production of fodder crops and pastures is rather weak in most of the countries thereby proving a major bottleneck in the expansion of animal husbandry; hence the need for greater attention to forage under appropriate integrated cropping systems.
16. Adequate and timely supply of standard seed and planting materials is fundamental to improved production of crops. However, production and distribution of quality seed and planting materials are far from satisfactory in most of the developing countries of the region. Many countries do not have adequate seed legislation and arrangements for its implementation. Furthermore, aspects of seed security are generally not covered, resulting in shortages of seed in cases of drought, flood, and other natural calamities. Therefore, the need for ensuring supply of quality seed from breeder to the farmer and for the establishment of regional/sub-regional seed security arrangements can hardly be over-emphasized. Further, the erosion of genetic resources needs to be systematically reversed.
17. With the intensifying exchange of germplasm and planting materials among countries of the region as well as outside the region, adequate quarantine facilities and expertise must be in place to prevent the inadvertent transfer of new pests. In several countries of the region, quarantine infrastructures are inadequate and should be updated to meet these challenges.
18. The emphasis on crop intensification, especially in hot and humid belts, has entailed risks of higher incidence of pests. New species of pests and pathogens, such as new biotypes of brown planthopper, are causing considerable losses. Fruitfly infestation is common and is not only reducing the quality and quantity of local production of fruits but represents a major bottleneck to valuable exports. The use of pesticides has increased considerably and cases of indiscriminate use of pesticides and other agrochemicals on several crops, particularly vegetables and fruits, with resultant environmental damage, are frequently reported. Several countries in the region are not well-equipped for ensuring safe and efficient use of pesticides. Integrated pest management needs to be further promoted.
19. Post-harvest losses, often of the order of about 15 percent, constitute a serious constraint to agricultural products availability in most of the countries of the region. The increased production of cereals and other primary commodities witnessed in recent years in the region has not been matched by commensurate developments of processing industries. Even with regard to rice, the foremost commodity of the region, the

replacement of traditional milling methods has not received adequate attention and this leads to considerable post-harvest losses. Furthermore, although several countries of the region have sought to formulate and implement policies for the development of agro-industries, generally, this aspect remains neglected. This applies particularly to small- and medium-scale processing units for perishable commodities such as fruits and vegetables. Nevertheless, there is ample scope, for instance, for promoting sericulture as an important source of employment and income for landless labourers and for export. But, there is considerable unevenness in performance between countries and, in most cases, the yields are low.

20. With the accent on crop intensification and increased production, the role of agricultural implements and machines is pivotal to increase labour productivity and for timely operations. Generally, farm implements and power have remained neglected aspects of agricultural policy. Several farm operations are constrained by inappropriate technology and unavailability of suitable agricultural implements and machinery. There is also, generally speaking, insufficient attention to adjusting national policies concerning farm mechanization.

- Livestock

21. Livestock production in Asia and the Pacific still relies largely on small-scale producers. Although some large-scale livestock farms have also been established in both public and private sectors in several countries, such commercial-type production units are still few in number and generally found only in and around urban centres. Thus, most of the milk, meat and other livestock products are still produced by subsistence farmers. In practice, the livestock sector plays an important role in the lives of millions of rural-based families by providing much needed draught power, high-quality proteins (milk, meat and eggs), regular cash income and gainful employment.
22. The demand for livestock products has been growing steadily. In many countries of the region, demand is outstripping domestic output of livestock products resulting in net imports. Since the region has already a fairly large livestock base, it is possible to increase productivity by introducing improved animals, better feeding practices and more effective measures for animal disease control. In view of the fact that livestock production involves interdependent components such as breeding, feeding, animal health care and product marketing, integrated approaches are needed not only to fully utilize large livestock resources, but to make use of crop residues and agro-industrial wastes and by-products.
23. The incidence of contagious animal diseases such as foot-and-mouth disease, rinderpest and Newcastle disease, not only adversely affects domestic animal production in the region but also hinders severely foreign trade of live animals and animal products. There is a good potential for several developing countries in the region to become competitive meat exporters once the problems of animal health have been solved. Regional cooperation is necessary to control and eventually eradicate these diseases. Some countries have already established disease-free zones as means for control and eradication.

- Research and Technology Development

24. In many countries of the region, national policies and capabilities in the generation of agricultural technology remain uneven and still require considerable strengthening. Several countries have benefited from the technologies developed by the International Agricultural Research Centres (IARCs) of the Consultative Group on International Agricultural Research (CGIAR). However, the technologies developed by the IARCs need to be complemented by location-specific research, and the national research systems need also to undertake certain strategic research. There will also be a need to bridge the gaps in biotechnology applications to production, protection, processing and utilization of agricultural commodities and products.

- Rural Development

25. Rural development in the region involves a large number of fairly complex problems. Indeed, the pace of rural development in the region continues to be a matter of concern. There is evidence that benefits of agricultural growth have not been shared equitably among the majority of the rural population. The region continues to be beset by serious problems of rural under-development and poverty. Therefore, the documentation of prevailing issues through case studies and monitoring of progress in terms of specific and objective socio-economic indicators are of central importance. Improvements are needed in databases and the subsequent continuous monitoring and evaluation of the directions and pace of rural development. In particular, there is need for socio-economic indicators which can measure progress in equity along with growth.
26. Many agricultural and rural development programmes need to be supplemented by special programmes oriented towards the small farmers and rural poor. This is especially so in respect of agricultural credit, inputs and marketing. In many countries of the region, a significant proportion of rural households are landless and hence call for special attention and expansion of non-farm employment opportunities.
27. Despite attempts towards integration of women in agriculture and rural development in several countries of the region, their participation and remuneration remain at low levels. In many countries, women and young children still constitute the groups most vulnerable to undernutrition. The drudgery of time-consuming and menial tasks, both on the farm and in the home, must be reduced so as to permit rural women to engage in productive and profitable tasks and boost family income.
28. New and improved methods of transferring technology have been adopted but still do not serve the majority of small farmers. Part of the problem continues to lie in ineffective extension services and limited facilities for agricultural education, especially for training youth and women. Links among agricultural education, extension and research must be further improved.
29. In recent years, an increasing amount of institutional credit for agriculture has been made available, but has not always reached the small farmers to the extent needed. Similarly, marginal farmers suffer from lack of adequate access to marketing facilities. The potential of

agriculture cooperatives to increase agricultural productivity, the incomes and quality of life of small farmers and other vulnerable groups, including women, should be tapped further. However, national systems of monitoring and evaluating performance of agricultural cooperatives are still weak.

- Nutrition

30. In many countries of the region, diets are predominantly based on cereals. The diversification of diets, e.g. through greater consumption of animal products, is necessary. The focus of agriculture planning and food policy should shift from mere food self-sufficiency to nutritional adequacy of diets of national populations. In this context, underexploited traditional foods of nutritional significance could play a prominent role. In certain countries, nutritional deficiencies such as vitamin A, iron and iodine deficiencies, are persisting but could gradually be removed through dietary guidelines, increased supplies of critical foods and nutrition education. It is also necessary that governments be able to identify groups at risk through appropriate indicators.
31. The urban populations in the region are increasing at an unprecedented rate. This creates problems of food supply and distribution in urban centres. Street foods have become the major source of food in cities, especially for the poor. It is therefore becoming increasingly important to develop systems and facilities to monitor and upgrade the nutritional and microbiological qualities of street foods.
32. In view of stepped-up trade of raw and processed foodstuffs among and within countries, it is essential that member countries enact food laws and implement food quality control and standards in order to ensure protection of consumers and permit fair trade.

- Food and Agricultural Information

33. Most countries in the region have improved their food and agricultural statistics by strengthening statistical systems and services, refining census and survey methodologies, extending the scope and coverage of their statistical programmes, providing training for statistical personnel and making use of computer facilities. However, the problems of reliability, accuracy and timely availability of data needed for policy analysis, formulation and monitoring of development programmes cannot be considered as entirely solved. New areas of agricultural statistics need to be developed, for example the costs of production in respect of agricultural commodities, and other food and agricultural related surveys.
34. Lack of trained manpower in conducting agricultural census and surveys is a major problem in some countries in the region, especially in the small island countries. The systems of agricultural statistics in the Pacific Island countries are still less developed and require substantial external assistance.

- Food and Agricultural Policy

35. Developments in export commodity production and trade were mixed in the decade ending in 1988. Prices, incomes and foreign exchange earnings

for some commodities like rubber, palm oil and rice fell in the mid-eighties; but have since recovered to relatively high levels. Several other commodities namely cocoa, pepper, jute and tea experienced weak demand in the second half of the decade and continued to suffer from low prices. Small producers of these commodities remain highly vulnerable.

36. On the food security front, there has been a steady increase in staple foods production, particularly cereals, in most countries. Stability of supplies has also improved with rising carryover stocks and increased capacity to import. However, the region's main concern remains the access to food by vulnerable groups including subsistence farmers, landless labourers, residents of disaster-prone areas and the urban poor. Recent studies have revealed that there has been limited progress in this respect. Food subsidies through public distribution systems may need to be increased. There is a need for continued effective pricing policies for staple foods. Marketing facilities for small producers must be improved and the readjustment and diversification of export commodities should be promoted.
37. There has been a marked improvement in trained manpower for agricultural development planning policy analysis and agricultural project development and management. Many national institutions for agricultural development and planning have adequate capabilities in planning and policy analysis. In particular, the capacity to formulate agricultural pricing policies and mechanisms was strengthened in some countries. Nevertheless, there is a considerable need for exchange of information and experiences in regard to agricultural planning. Long-term analyses of food and agricultural development in the region should also assist member countries in their own policymaking and development planning efforts.

Medium-term Objectives

38. The medium-term objectives are geared to respond to the above problems and in particular to:
 - strengthen national capabilities for efficient use of land and water resources and production inputs on a sustainable and environmentally sound basis; increase food production through better farming systems and crop management; and enhance food security and improve food distribution particularly with attention to the nutritional needs of vulnerable groups;
 - sustain growth and improve equity by raising the income and living standards of the rural poor through appropriate policy measures, technology generation and transfer, and needed institutional reforms;
 - lessen the disparities in technological development within the region through promotion of TCDC.

Plan of Action

- Natural Resources

39. The environmental issues concerning land and water use in agricultural development will be the theme of the second meeting of the Regional Network on Problem Soil Management, with participation of both soil and water management specialists from the region. Soil conservation

aspects will be featured in a regional consultation on farming systems in highland areas; while soil conservation measures will be promoted through a regional project covering six humid tropical countries and through assistance to national programmes on problem soil management and integrated watershed development.

40. Assistance will be provided to national programmes in land resource survey and integrated agricultural development planning, including further national studies encompassing agro-ecological zonation and assessment of the potential population supporting capacities of land for integrated land use planning.
41. The exchange and dissemination of information and experience in improving soil fertility and the environment through organic recycling and the better management of rural and urban wastes, will continue under the Regional Cooperative Network on Organic Recycling. A second meeting of the Asian Network on Bio- and Organic Fertilizers will be held; it will give priority to the identification and description of viable integrated plant nutrition systems drawing on experience from FAO Fertilizer Programme projects in the region.
42. The second meeting of the Asian Network on Water Lifting Devices for Irrigation will be held. It will focus on measures to reduce over-exploitation of water resources and environmental damage, and means to improve the energy and cost efficiency of water lifting devices. In order to reduce inefficient and costly water use from large- and medium-scale irrigation systems, improved irrigation management systems with emphasis on farmers' participation will be promoted, possibly through the establishment of a regional TCDC project.
43. In the area of fertilizer use, attention will be given to maintaining growth in consumption through the activities of the Fertilizer Advisory Development and Information Network for Asia and the Pacific (FADINAP), and the regional project on training of fertilizer and other input retailers which will expand its operations. Efficient fertilizer use, balanced consumption of main fertilizer nutrients, and secondary and micro-nutrient deficiencies will be major areas of concern under the Fertilizer Programme in its continued assistance to several countries of the region, seven of which will participate in a network dealing with sulphur in balanced soil nutrition.
44. A regional expert consultation on farming systems development/farm management in highland areas will be conducted in 1991. Meanwhile, activities will be undertaken to follow up on the recommendations of the Expert Consultation on Farm Programming for Rural Households and the Tenth Session of the FAO Regional Commission on Farm Management for Asia and the Far East held in the current biennium. Assistance will be provided in developing guidelines and training in farm data collection and analysis. Case studies will be conducted to document successful experiences in farming systems development which incorporate environmental issues like soil conservation and water use.

- Crops

45. A regional expert consultation on hybrid rice production will be organized to analyze problems and prospects of commercial production of hybrid rice in countries other than China, where it is already well-established. A regional project on hybrid rice involving major rice

producing countries in the region will be formulated. Studies on watershed management for crop production under rainfed areas will be undertaken in selected countries, such as Bangladesh, China, India, Nepal, Pakistan and Thailand. A regional expert consultation will be convened of the Asian Network on Rainfed Agriculture, to focus on watershed management approaches for sustainability and improved productivity of rainfed areas. Field activities will include regional network projects on coarse grains and legumes, as well as national field projects.

46. Successful cases of crop diversification and intensification involving varying cropping patterns will be documented and disseminated. Assistance will be provided to several countries viz. Indonesia, Philippines, Sri Lanka and Thailand to develop appropriate practices for improved forage production. India and Sri Lanka will be assisted in strengthening their capabilities in production of forage seeds. Cotton, besides being an important fibre crop, will be promoted also as an oil-protein crop (glandless cotton) in selected countries. Improved production of jute, including germplasm conservation and utilization, pest management and retting, will be assisted through International Jute Organization (IJO) projects in Bangladesh, China, India, Indonesia, Nepal and Thailand. High-value crops, such as essential oil and medicinal crops, will be promoted, particularly in mountainous and remote areas of Bhutan, Nepal and a few other countries.
47. Under the auspices of the regional networks on vegetables and fruits, successful experiences will be documented and disseminated. The following aspects will be covered: vegetable seed production; production and distribution of planting materials of fruits, and production of vegetables under protected conditions of tropical humid zones. Technical support will be provided to several countries, e.g. Bhutan, China, India, Nepal, Republic of Korea and Thailand for intensive specialized production of selected fruits including citrus.
48. A regional expert consultation of the Asian Network on Oilseed Crops will be organized to analyze the problems and prospects of annual oilseed crops, through the development and large-scale adoption of hybrid varieties of sunflower, rapeseed-mustard and safflower. A few countries will be assisted in their programmes to expand production of groundnut and soybean.
49. The South Pacific Island countries will benefit from a planned feasibility study of a sub-regional programme on vegetable seed production and distribution. Technical support will be provided to the existing sub-regional project on root crops and coconut. Some of the island countries will also be assisted in fruit crop production and expansion.
50. The current situation and prospects of production and distribution of standard seeds will be analyzed in selected countries of the region and the results published. The role of the private sector in and the implications of plant breeder's rights on the distribution of improved seeds will be examined. Several training courses on production and distribution (marketing) of hybrid seeds, including those of vegetables, are envisaged. Variety descriptions will be carried out within the framework of the FAO Seed Information System. Assistance will be

provided to member countries for strengthening seed production programmes and developing appropriate seed legislation, together with the strengthening of national capabilities for conservation, utilization and exchange of germplasm and planting materials.

51. With regard to plant protection, the Seventeenth Session of the Asia-Pacific Plant Protection Commission (APPPC) will be convened. The quarterly APPPC newsletter and technical plant protection bulletin will be issued. A regional expert consultation on fruit fly disinfestation will be organized and a network on fruit fly management will be established.
52. A regional expert consultation on plant quarantine will be organized to share the experiences of the countries in the region and to identify requirements of external assistance. A database on plant quarantine will be established. The adoption and implementation of the International Code of Conduct on the Distribution and Use of Pesticides will be monitored in selected countries. The regional project in relation to implementation of the Code, GCP/INT/457/JPN, will be assisted.
53. Further technical assistance, including manpower training, will be provided for integrated pest management in vegetables through a regional project. Technical support will also be provided to the regional project on Integrated Pest Management (IPM) for rice. A study will be undertaken on biological pest management practices in selected countries.
54. In the field of agro-industry and agricultural mechanization, a regional workshop on handling, processing, storage and transport of horticultural products will be organized, to analyze the current situation and future prospects of preventing post-harvest losses and in enhancing value-added products. Within the broad objective of diversification of agricultural economies, under the auspices of the Regional Network on Sericulture, successful experiences on specific aspects of sericulture will be documented and disseminated.
55. A regional expert consultation on selected agro-industries will be organized with the focus on policies and strategy formulations for expanding agro-industry in the region. The Regional Network on Agricultural Mechanization (RNAM) will be further supported. Technical assistance will be provided to selected countries on post-harvest handling and prevention of losses.

- Livestock

56. The development of new feed resources and the promotion of feeding technology based on agro-industrial wastes/by-products will remain priority concerns. Successful experiences will be further disseminated within the region for practical adaptation of feeding practices, at farmer level. In close collaboration with the forestry sector, assistance will be given to promote use of forest lands in support of livestock farming.
57. The Regional Network on Biotechnology will provide member countries with information on innovative technologies which are directly applicable to enhance livestock production. Support to buffalo development

will continue through the existing regional network and the Buffalo Development Centre. Goat and sheep development will be assisted in both Southeast Asia and South Asia.

58. The activities of the South Asia Rinderpest Eradication Campaign (SAREC) will continue to be coordinated. Member countries will be assisted in expanding their disease-free zones for such diseases as foot-and-mouth disease and haemorrhagic septicaemia. South Pacific island countries will be supported to upgrade their animal quarantine systems to prevent introduction of contagious animal diseases extraneous to the sub-region.
59. Policies and programmes related to increased production of milk and meat by small producers will be supported. Under the International Scheme for Coordination of Dairy Development (ISCDD), small farmer dairy development programmes will continue to be promoted for rural development.
60. The Regional Animal Production and Health Commission for Asia and the Pacific (APHCA) will continue its action-oriented activities in conformity with Technical Cooperation among Developing Countries (TCDC) objectives. The Commission will also continue to serve as a forum to identify regional-level strategies for livestock development in Asia and the Pacific.

- Research and Technology Development

61. Support will be provided to the Asia-Pacific Association of Agricultural Research Institutions (APAARI), in particular through collection and dissemination of information. Some of the countries in the South Pacific will require assistance to strengthen their national agricultural research systems and an expert consultation on agricultural research will be organized for the sub-region. The regional project on demonstration and training in applied agricultural research and technology transfer, involving seven Asian countries, namely Bangladesh, Burma, China, Indonesia, Nepal, Thailand and Vietnam will be supported and backstopped.
62. Cooperative arrangements with CGIAR centres, especially IRRI, ICRISAT, ISNAR and CIMMYT, and with other institutions in the region will be further strengthened. A six-monthly regional bulletin on rural energy will continue to be issued. The conservation of biological diversity will be promoted and appropriate forest species for fuelwood and other uses will be identified. In addition, information on successful uses of renewable and new sources of energy will be disseminated.
63. A regional expert consultation on the role of biotechnology in crop production and protection will be organized to analyze the current situation and future prospects. The consultation will also establish a regional network and formulate a regional project on biotechnology for crop production and protection.
64. Cooperation with the UNDP/ESCAP regional remote sensing project for Asia and the Pacific will continue. The project is based on TCDC concepts and its main objective is to increase national capabilities in remote sensing for mapping assessment and monitoring of agricultural resources.

- Rural Development

65. The documentation of successful rural development programmes will be continued, and case studies conducted to evaluate people's participation in rural development. Further activities will be carried out on administrative decentralization in rural development planning and programmes. With a focus on the monitoring of agrarian reform and rural development programmes, the Seventh Regional Intergovernmental Consultation on WCARRD Follow-up will be held in 1991. Collaboration with the Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP) will continue, particularly in respect of appropriate indicators. The Asia-Pacific Agricultural Statistics Commission has also developed indicators which will be further refined with a view to developing a regional profile to allow inter-country comparison.
66. Small farmers' development and people's participation programmes will remain a cornerstone of RAPA activities. The experience gained so far from these programmes will be reviewed, consolidated and documented, and illustrative and training materials will be developed for use in member countries. Technical assistance will be provided in formulating specific policies, plans and programmes relating to small farmers' development. Training activities are planned for field-action research fellows, group organizers, village-level workers, as well as participatory planning, monitoring and evaluation workshops. Countries will be assisted, on request, in manpower planning for rural development. Case studies will be prepared on the incidence of landlessness in rural areas.
67. In order to improve the instruments of action on behalf of rural women, a database will be developed for monitoring women's participation in agriculture and rural development. A regional expert consultation on this subject will be held in Bangkok in 1990 to assist in the development of the component databases and monitoring systems. To increase women's participation in decision-making, implementation and evaluation of projects and sharing of the benefits of rural development, training and extension will be supported with target groups involving both men and women at relevant levels, as well as the reorientation of curricula to cover the needs of women at the rural household level.
68. A regional workshop on agricultural extension will be organized in 1990 to discuss how country-level extension programmes can be improved, including supervision and training of extension workers and training of farmers, women and youth. Improved links of agricultural education, extension and research will be sought, through documentation of successful cases. Follow-up activities will be undertaken to the recommendations of the global conference on agricultural extension held in 1989.
69. TCDC training activities will be organized in cooperation with both CIRDAP and the Asian NGO Coalition (ANGOC). Marketing activities will continue to be supported through the Association of Food Marketing Institutions in Asia and the Pacific (AFMA), especially through staff exchange programmes. The assessment of marketing costs and margins of agricultural products and inputs will remain an ongoing activity.
70. A regional expert consultation on the role of cooperatives in promoting agricultural production will be held in 1990. Follow-up action to the Regional Consultation on Cooperative Processing of Agricultural Produce

held in 1987, will be undertaken at the country level. Indicators for monitoring and evaluating performance of agricultural credit cooperatives will be further developed. In-depth studies will be carried out to analyze those factors which either constrain or facilitate women's participation in agricultural cooperatives, and to identify related training needs.

71. A regional expert consultation on policies and programmes relating to agricultural credit and banking will be held in 1991. Guidelines will be developed on evaluating the performance of rural financial institutions. Country experiences in crop insurance will be documented and widely disseminated. Support to APRACA will also be continued and its collaboration enlisted in the organization of consultations and meetings.
72. In 1990, a regional expert consultation of the Asian Network on Development Communication by Agricultural Universities will seek to build on national initiatives. These include workshops organized by Thai universities and line agencies on rural poverty alleviation; by the Agricultural Colleges Association of the Philippines on agrarian reform and communication systems and for agricultural research dissemination in Indonesia. Backstopping will be provided to the likely Phase II of the project: "Sharing and Strengthening of Development Support Communication Research in the ASEAN Countries".

- Nutrition

73. Two expert consultations of the Asian Network for Food and Nutrition will be held, one in 1990 and the other in 1991, to develop and disseminate dietary guidelines for food and agriculture planning aiming at nutritional adequacy and dietary improvements. Country workshops will be held for nutritionists and allied professionals, which will focus on introducing nutritional concepts in food and agriculture planning.
74. The use of the package of nutrition indicators developed by RAPA for the identification of nutritionally-at-risk communities and geographical areas will be encouraged through visits, advice and training. The control of nutritional deficiencies will be encouraged through designing special programmes and nutrition education.
75. Through country visits and published material, assistance will be provided to countries for upgrading the informal sector of street foods. The provision of credit through soft loans and regular bank loans will be promoted for modernizing street foods activities.

- Food and Agricultural Information

76. The Thirteenth Session of the Asia and Pacific Commission on Agricultural Statistics will be held in 1990. This session will review the progress achieved since its last meeting in 1988, and consider, inter alia, documentation of country experiences on costs of production of agricultural commodities. Other activities will include: the development of methodologies for assembling data in regard to small farmers' access to chemical fertilizers and formulation of guidelines for improvement of crop forecasting techniques as an input to early warning systems. This will involve consultation with national statistical organizations.

- Food and Agricultural Policy

77. Under the aegis of the Food Security Commission for Asia and the Pacific, the regional food security situation, including national policies and programmes, will be monitored and assessed. Food marketing training courses will be organized. Technical support will be provided for improving public distribution systems, with emphasis on management efficiency of national food agencies. Guidelines will be developed for rationalizing government interventions in foodgrain marketing and mobilizing resources for food assistance to vulnerable groups.
78. National policies to adjust agricultural production for export of both non-traditional and traditional commodities, will be reviewed. Monitoring and study of agricultural commodity trade developments will constitute ongoing activities.
79. Assistance to member countries will continue to enhance national capabilities for agricultural planning and policy analysis. Training programmes in agricultural planning and project development at country and inter-country levels, will be organized. A regional publication on national development plans and strategies will be updated. A long-term analysis of the food and agricultural development in the Asia-Pacific Region will be undertaken. Follow-up action will be given to the recent regional consultation of senior agricultural policymakers.

II. FISHERIES

The Regional Setting

80. The inshore waters of the region continue to experience heavy exploitation of many fish stocks and particularly of demersal fish and shrimp. This brings about problems of declining biological productivity, lower catches, lower production of high-value species and higher catches of trash fish, impoverishment of small-scale fishing communities and conflicts between large and small-scale fisheries. Stock assessments of the heavily exploited resources and management measures to deal with the consequences of excessive fishing effort, are required in most developing countries of the region.
81. There is still scope for greater exploitation of some resources such as cephalopods, coastal tunas, king mackerels and a few small coastal pelagic species. However, this depends on more research efforts, new fishing methods, post-harvest technology and fostering of consumer demand for non-traditional products.
82. The tuna resources of the region are being exploited by distant water fishing fleets, as well as increasingly by some developing coastal Countries of Southeast Asia. A complex set of interactions between various types of fisheries, between stocks, and between types of gear is taking place. In the developing countries, the small-scale nature of operations often makes it difficult to obtain reliable statistics by gear and species.
83. The region is distinguished by the significant contribution of aquaculture to the production of fish and other seafood. However, inadequate supplies of fish seed, lack of economical and nutritionally

adequate fish and shrimp feeds, the incidence of diseases, and low level of engineering expertise continue to constrain the development of aquaculture. The marketing of aquaculture products and the socio-economic implications of aquaculture development, particularly in coastal areas, require study and the development of suitable data.

84. Significant post-harvest losses of fish are occurring due to spoilage, by-catch discards, and insect infestation of dried fish. The inconsistency in quality of seafood exports from the region leads to reduced foreign exchange earnings, due to detention, and to exports from the region being subject to reprocessing.

Medium-term Objectives

85. The medium-term objectives are to:
- strengthen the capability of developing countries to rationally manage, and make optimum use of their marine and inland fish resources;
 - expand aquaculture production and generate employment opportunities in rural areas;
 - improve socio-economic conditions of fishing communities by increasing the productivity of artisanal fishermen and fish farmers;
 - promote regional cooperation in fish technology so as to reduce post-harvest fish losses;
 - promote intra-regional trade and participation of the region in international fish trade through the exchange and dissemination of fish trade information; and
 - increase the role of fish in human nutrition, through improvements in the infrastructure for fish marketing and distribution.

Plan of Action

86. FAO's fisheries activities in the region will continue to provide support and technical inputs for the implementation of the Strategy and the associated Programmes of Action adopted by the World Fisheries Conference, and to reflect the priorities indicated by the regional fisheries bodies.
87. The development of regional and national fisheries data and information centres will continue to be promoted. The timeliness and accessibility of the fishery statistical databases will be improved through increased computerization. The data on aquaculture will be updated and analyzed. Regional synopses of fishery data will be prepared to assist in monitoring trends in the region. Other agencies concerned with fishery statistics will be consulted on the needed harmonization of statistical grids and fishing areas for statistical purposes, as well as in order to define common standards and definitions for the reporting of statistical data.
88. The organization of national seminars for planning of fisheries management and development is planned with special attention to integrated coastal management. A symposium will be held on artificial

reefs and fish aggregating devices. Further training will be provided on stock assessment of marine fishery resources. New institutional arrangements will be promoted for the management of Indian Ocean tuna resources. A technical consultation will be held on the interactions of tuna fisheries in the Pacific Ocean.

89. Regional collaboration in fisheries management and development will be promoted through the regional fisheries bodies. Secretariat and administrative support will be ensured for the Indo-Pacific Fishery Commission (IPFC), the IPFC Committee for the Development and Management of Fisheries in the South China Sea, the IPFC Standing Committee on Resources Research and Development (SCORRAD), the IPFC Working Parties on Fish Technology and Marketing, Inland Fisheries, and Aquaculture, and the IPFC Committee for the Development and Management of Fisheries in the Bay of Bengal, sessions of which are scheduled to be convened during the biennium.

90. With regard to inland fisheries, priority will be given to investigations on the extent and value of the riverine resources and their possible enhancement for fisheries. Development of reservoir fisheries will be further promoted and attention will be given to the better utilization of the potentials of coldwater fisheries, especially in the Himalayan region. The dissemination of proven aquaculture technologies will be further assisted, primarily through the Network of Aquaculture Centres in Asia, which became a self-financing, autonomous, inter-governmental organization in 1989. A regional workshop will be organized on the appropriate technology of small-scale production and local processing of seaweed. The socio-economic aspects of coastal aquaculture development will be further studied and the integration of aquaculture in national coastal zone management schemes will be promoted. Aquaculture development in the Least Developed Countries of Asia and in the South Pacific sub-region will receive special attention. The fish disease situation in the region will be further monitored and the establishment of national field diagnostic laboratories encouraged. Studies on the marketing aspects of aquaculture development will be intensified.

91. The cooperation between fisheries institutes in the region will be promoted through the concept of Clearing House for Fisheries Advisory Services. Assistance will be provided to member countries to facilitate the cooperative use of vessels for fisheries research, development and training. Training will be provided in the identification and preparation of fishery projects and in resource allocation methodology. A regional expert consultation will be held on the role of cooperative and other organizations of fisherfolk. Studies will be carried out on socio-economic aspects of small-scale fishing communities. In the Bay of Bengal and the South China Sea, two regional projects will continue to support small-scale fisheries development, specifically in the areas of extension methodology, coastal aquaculture, fishing technology, bio-economics, identification of development opportunities and training. In the South Pacific, the Regional Fishery Support Programme will continue to cater to the fisheries assistance needs of the Pacific Island countries.

92. Cooperative fish technological research will continue to be supported through the network of Asian fish technology institutes. Regional workshops will be held on advances in fish technology and quality assurance, and on artisanal fish technology. Training will be provided

on quality assurance, fish inspection and quality control, small-scale fisheries marketing and credit. Close collaboration with INFOFISH will continue on fish marketing information and advisory services.

III. FORESTRY

The Regional Setting

93. The tropical forests of the region constitute a quarter of the world resources. All countries in the region, however, are not equally well endowed. The percentage of forest area to total land area varies from 97 percent in Brunei to 4.5 percent in Pakistan. Forests and woodlands are often not available in the vicinity of densely populated areas where the demand for small timber and fuelwood is the greatest. In several parts of India, such as in the Indo-Gangetic Plains, there is practically no forest area left to meet the needs of rural communities for timber and fuelwood. The situation is similar in Bangladesh, Pakistan and, to some extent, in several other countries. Community forestry programmes are attempting to reverse these trends.
94. The forested area is undergoing a process of serious erosion. It is estimated that by the year 2000, some 36 million hectares of closed forests in the region will have been converted to non-forest uses, i.e. a decrease by about 12 percent since 1975. The major causes of deforestation are: shifting cultivation practices; uncontrolled encroachment; settlement schemes and the transfer of land for such uses as construction of irrigation projects, mining, etc.. Deforestation has also serious consequences on watersheds. Arresting the trend in deforestation and rebuilding the forest resource base remain major concerns.
95. Basic problems in natural forest management include: the very narrow range of commercially valuable species which are subject to over-exploitation; heavy mechanized logging causing damage to residual stands and an increasing frequency of forest fires. Critically important actions, yet not fully adequate in many countries of the region are: resource identification through continuous inventories; the promotion of sustainable management regimes; conserving watersheds and promoting rational use of forest resources by local communities.
96. In forest utilization and marketing, the major problems appear to be: planning for location of wood-based industries, particularly pulp and paper units; promotion of wood-based industries capable of using plantation grown wood; training of personnel at all levels and appropriate market support. The development of small-scale rural forest industries and promotion of non-wood products deserve greater attention than is being given to them currently.
97. A strong socio-economic dimension has now been added to forestry, calling for a new breed of foresters who are not only well versed in technical disciplines, but are also capable of acting as communicators. Forestry education and training is, however, still in need of change in many countries, as a whole range of new technological and sociological issues calls for a significant reorientation of forestry curricula. In addition, forestry research needs to be further developed, including the promotion of multi-purpose trees.

Medium-term Objectives

98. In the medium term, the objectives are to:
- improve forest land use planning, management of natural and man-made forests;
 - improve supply of forest goods and services to match demand, while ensuring widespread sharing of benefits by all segments of the population concerned;
 - stabilize the environmental contribution of forests to the land water base and enhance forestry's contribution to food security;
 - optimize the direct contribution of forest products to the economy, through the development of appropriate industries and the supply of wood for energy;
 - develop and where necessary reorient institutions and policies at national level to promote political commitment and sustained action.

Plan of Action

99. In view of the serious concerns about deforestation and degradation of forest resources, gathering quantitative and qualitative data on the rapidly changing forest cover in the region will remain essential, including cooperation with the global project: "Tropical Forest Resources Assessment 1990". Forest services and institutions in the developing countries of the region will receive assistance on forest inventories and related electronic data processing methodologies. The implementation of the Tropical Forestry Action Plan at national level will be followed up in order to attract multi-donor support for investment into the forestry sector. Ex situ and in situ conservation of forest genetic resources will be encouraged through national institutions. Information on nitrogen fixing trees and multi-purpose species will be exchanged. RAPA will continue to disseminate information on management of national parks and wildlife sanctuaries through the regional publication "TIGERPAPER". A regional expert consultation on the management of national parks and wildlife reserves will be organized to discuss measures to improve the management of buffer zones.
100. Producing/exporting countries of the region will be assisted in dealing with the range of problems involved in the establishment of forest-based industries, through the standardization of grading rules and through dissemination of market intelligence on timber trade. Studies will be carried out to promote small-scale and appropriate rural forest industries.
101. A publication on the utilization of rubber wood in Thailand will be issued to promote awareness among other countries endowed with rubber wood resources about their growing potential. Collaboration with the International Timber Trade Organization (ITTO) will be ensured. In view of the growing interest in the extraction, processing and marketing of non-wood forest products as a source of income and employment for local communities, a regional meeting will be organized on the subject.

102. Exchange of information and experience among countries will be promoted in the field of forest policies, forest legislation and the organization of the public forestry administrations. Community forestry programmes, widely undertaken in different countries in the region, will be supported through several actions: studies on food production from forests; economics of forestry and agro-forestry; support to NGOs action; and the potential utilization of non-wood forest products for small-scale rural industries. Work on rural energy will continue through the publication of two yearly issues of the Rural Energy Bulletin. Forestry education and forestry research will remain the two principal concerns of the Asia-Pacific Forestry Commission. Following steps to establish the Asian Network on Forestry Education and to promote information exchange among Asian forestry faculties, a meeting of this network will be convened during the 1990-91 biennium to aim at achieving comparable standards of professional education among the different institutions and to introduce social science components into their curricula.
103. In respect of forestry research, a status report on forestry research in the region incorporating the latest developments, will be prepared and circulated to concerned institutions. Reorientation of research programmes will be encouraged to meet the objectives of community forestry in the region. Support to international cooperation and national efforts to strengthen forestry research management capabilities, will be continued. Building on the results of a meeting of directors of research held in 1989, management of forest research, systematic documentation of past and current research results, packaging of research results to adapt them to users and information dissemination will represent core activities during the biennium 1990-91. Applied research in biotechnology for tree improvement will be encouraged by organizing a meeting on this subject during 1990-91.

REGIONAL ESTIMATES BY PROGRAMME (\$000, All Funds) - ASIA AND THE PACIFIC

Programme	Regular Programme				Extra-Budgetary	Total
	Headquarters	Regional Offices	Country Offices	Total		
1.1.1.7 Regional Conference	356	0	0	356	0	356
2 Technical and Economic Programmes	(34 355)	(8 680)	(0)	(43 035)	(151 402)	(194 437)
2.1 Agriculture	(24 863)	(7 288)	(0)	(32 151)	(108 274)	(140 425)
2.1.1 Natural Resources	2 943	797	0	3 740	16 522	20 262
2.1.2 Crops	3 855	1 103	0	4 958	34 906	39 864
2.1.3 Livestock	2 779	773	0	3 552	11 708	15 260
2.1.4 Research & Technology Development	1 988	116	0	2 104	5 246	7 350
2.1.5 Rural Development	5 188	1 673	0	6 861	23 782	30 643
2.1.6 Nutrition	2 870	335	0	3 205	2 778	5 983
2.1.7 Food and Agricultural Information and Analysis	1 773	405	0	2 178	6 030	8 208
2.1.8 Food & Agricultural Policy	3 236	1 114	0	4 350	7 210	11 560
2.1.9 Programme Management	231	972	0	1 203	92	1 295
2.2 Fisheries	5 593	706	0	6 299	13 935	20 234
2.3 Forestry	3 899	686	0	4 585	29 193	33 778
3 Development Support Programmes	(6 741)	(0)	(10 490)	(17 231)	(8 588)	(25 819)
3.1 Field Programme Liaison and Development	1 650	0	0	1 650	2 464	4 114
3.2 Investment	4 834	0	0	4 834	5 632	10 466
3.3.1 FFH/AD	257	0	0	257	0	257
3.4 FAO Representatives	0	0	10 490	10 490	492	10 982
4 Technical Cooperation Programme	14 909	0	0	14 909	0	14 909
5 Support Services	(0)	(1 241)	(0)	(1 241)	(0)	(1 241)
5.1.1 Public Information	0	361	0	361	0	361
5.2.1 Administrative Services	0	880	0	880	0	880
6 Common Services	0	816	0	816	0	816
TOTAL	56 361	10 737	10 490	77 588	159 990	237 578

EUROPE

I. AGRICULTURE

The Regional Setting

1. The European region is characterized by a great variety of natural, economic, social and political conditions which result in differing levels of economic, scientific and technological development. The European region - as a whole - has achieved high food production targets, and is now producing basic commodities in excess of local and export demand. However, some countries (central, East and Mediterranean) are still aiming at producing more food for their own populations and/or at improving variety and quality of food products. In most countries of the region, concentration, specialization and intensification of production have been increasing and agriculture is a capital-intensive and a high-technology sector of the economy. Most of the central and southern European countries are moving towards the intensification and industrialization of their agriculture and food sectors. These countries generally have a relatively large agricultural sector with pronounced differences, ranging from small-scale traditional farming to highly concentrated production systems. They have difficulty in achieving high agricultural production levels or economic efficiency regarding the resources engaged in agriculture. A few of these countries are still entitled to benefit from technical assistance under the UN system.
2. The structural surpluses and the optimal utilization of resources - together with food security - remain basic issues for the agricultural policy makers of the region. However, the region is also facing other problems such as maintaining farmers' income levels, the persistent differences in regional development, critical social aspects and the protection of the environment. Agriculture remains a way of life for millions of farmers and their families, and in this context, growing importance needs to be attached to problems of less-favoured areas, of part-time farming, and of survival of small family farms. Greater importance is also being given to industrial or non-traditional uses of existing agricultural products, in particular, for deriving more energy from biomass. There is a trend to move away from intensive production, particularly in the livestock sector. This may well prove to result in a lifeline for the family farm concept, hitherto endangered by the predominance of intensive and large-scale production systems.
3. Agricultural production and trade in the region should be seen in the context of current and planned efforts towards agricultural policy reform in many countries. These efforts reflect an increasing dissatisfaction with the impact of national agricultural policies, which have led to serious marketing imbalances of main commodities, increased risks of trade conflicts and spectacular rises in the cost^s of supporting them from public budgets. These efforts towards polic^y

reforms should also be seen in the light of ongoing international discussions aimed at lessening distortions in agricultural trade, in particular during the current Multilateral Trade Negotiations (MTNs) within the framework of GATT. Their potential impact on European agriculture should be recognised as should also the effects of changes connected with the emerging European Common Market of 1992. In some eastern European countries, programmes have been initiated to introduce market oriented pricing and to reorganize the agricultural sector by introducing decentralized systems of management of large-scale enterprises and facilitating private initiatives in agricultural production, processing and marketing. This includes the leasing of land owned by collectives and state-owned land to individual farmers and the establishment of agricultural companies owned by private individual shareholders.

4. The complexity and wide range of research activities in agriculture and related sectors, especially livestock, and the rapid progress of science and technology call for close international cooperation for a fuller utilization of existing possibilities. The application of research results and the complexity of modern methods of production are putting increasing pressures on farm management. This calls for professional training and highly qualified advisory services.
5. The prospects for European agriculture rest, to a large extent, not only on its adjustment to changing requirements but also on developments in other sectors. The basic question for Member Nations is how to reconcile an efficient and highly productive agricultural sector with changes in national economies and overall social and ecological requirements of their societies.

Medium-term Objectives

6. The medium-term objectives are to:
 - intensify and promote cooperation in the rational utilization and protection of natural resources (land and water);
 - extend inter-country cooperation and exchange of experience within the European System of Cooperative Research Networks in Agriculture (ESCORENA) and the Cooperative Networks on Rural Energy (CNRE) by concentrating on carefully selected priority areas;
 - assist in transferring proven technologies to developing countries;
 - monitor progress in and the practical applications of biotechnology and genetic engineering in crop, animal production and applied microbiology;
 - keep under review the environmental aspects of agricultural production and the protection of the environment in rural areas;
 - review possibilities for reducing energy consumption, for utilizing new and renewable sources of energy and for reducing the application of chemical inputs;

- review developments in agricultural production, prices, trade and major commodity markets;
- assist Member Nations in their efforts to reorganize their agrarian structures;
- further develop the socio-economic programme on regional development, rural employment and pluriactivity, farm management and farmers' participation;
- review regional policies, in particular those aimed specifically at less-favoured areas;
- continue the elaboration and/or revision of commercial quality standards of agricultural commodities, involving a steadily rising number of non-European countries;
- assist Member Nations in the further improvement and harmonization of agricultural statistics;
- promote application of remote sensing to the inventory and monitoring of agricultural land use.

Plan of Action

7. The recommendations of the European Commission on Agriculture (ECA) concerning the adjustment and reorientation of ESCORENA will be implemented in collaboration with the network coordinators. The European Research Network Advisory Committee (ERNAC) will keep under constant review the activities and the structure of each network.
8. New research networks and ad hoc research groups which are of interest not only to European countries but also to developing countries of other regions, mainly in the Near East Region, will be established and serviced. The research networks will disseminate information on their activities and achievements in a new series of technical bulletins. Cooperation with all interested international and non-governmental organizations will be further promoted, through joint meetings and workshops.

- Natural Resources

9. In addition to a technical consultation of the network on Animal Waste Utilization in 1990, several workshops will be organized in the next biennium. Special emphasis will be given to the protection of the environment and the standardization of analytical methodologies.
10. In 1990, the FAO/ECE Working Party on Agrarian Structure and Farm Rationalization will review legislation and measures on environmental problems resulting from agricultural practices (with particular reference to soil, air and water) from the point of view of their economic consequences and impact on agrarian structures and mechanization. An FAO/ECE symposium on methods and concepts for the

use of organic and chemical fertilizers aiming at maintaining soil fertility, minimizing negative effects on the environment, ensuring a high quality of the agricultural produce (food and fodder crops) and of maintaining profitable production, will be held in 1991 in Geneva.

- Crops

11. An Expert Consultation on "Biological Farming" will be held in 1990 to review progress in research and new opportunities for sustainable agriculture in Europe. Data on results, experience and trends in lower input farming and in "biological agriculture" will be collected and analysed. A study on government policies and regulations in this complex field will be prepared. A joint REUR/RNEA expert consultation will be organized with support by AGP in order to promote nut production in both regions. In addition to the existing cooperative research networks on olives, soybean, sunflower and cotton, new research networks or ad hoc research groups on flax, lupins, nuts, rice and potatoes are expected to be established in the next biennium.
12. The FAO/ECE Working Party on Mechanization of Agriculture will prepare reports on the situation and future use of new and renewable sources of energy (solar, wind, etc.) in agriculture; measures and methods to prevent the spreading of diseases and weeds by agricultural machinery; systems of testing for new agricultural machinery; recent developments, demands and constraints regarding the utilization of electronics and microprocessors in agriculture; agricultural mechanization training for farmers and technicians and trends in the mechanization of potato production.
13. A JEUR report on recent developments in the use of genetic engineering for the selection of agricultural plants is planned.

- Livestock

14. In addition to existing research and networks on pasture and fodder crops and sheep and goat production, new research networks or ad hoc research groups will be established on buffalo production, animal production systems and applied biotechnology.

- Research and Technology Development

15. The gradual phasing out of activities within the European Cooperative Networks on Rural Energy (CNRE) will be effected. However, some energy issues connected directly with agricultural production practices, mainly the further improvement of biomass and solar energy technologies, will continue to be dealt with. In this way, research cooperation in five of the present seven networks, and in 13 of the Present 21 working groups will be terminated.
16. Activities will comprise the organization of professional training courses and cooperative R & D programmes on selected topics in order to promote the transfer of energy technologies within Europe and to developing countries.

17. The CNRE will, in particular:

- promote the practical use and dissemination of biomass and solar energy technologies;
- prepare and publish state-of-the-art studies, guidelines, lists and economic justification of commercially available energy technologies and equipment manufactured in Europe;
- develop contacts with research networks and technical-scientific institutions active on rural energy development programmes in developing countries;
- cooperate with other UN agencies and international organizations through joint seminars, workshops and training courses to ensure complementary actions.

18. The number of CNRE meetings will decrease drastically. Technical consultations of networks will be held every four years and meetings of working groups every two or three years. The R & D collaboration will focus on the most energy-intensive technologies, namely: heating of greenhouses and animal houses, drying of agricultural products and heat and electricity supply of rural communities. Attention will be devoted to environmental aspects of intensive farming and forestry biomass production, as well as to the biotechnologies (biogas and bio-fuel production) connected with rural energy supply.

19. FAO's Remote Sensing Centre will continue its cooperation with the European Space Agency and national remote sensing agencies in completing pilot action studies on the application of high resolution satellite imagery to agricultural land use and crop inventories and monitoring. It will assist in establishing a network of European institutions involved in agricultural applications of remote sensing in order to strengthen their cooperation. Cooperation with the UNEP Plan of Action for the Mediterranean regarding coastal zones, thematic mapping and monitoring will also continue as part of the soil protection project.

20. Coordinated research programmes using isotopes and radiation for improving agricultural production involve a number of European scientists who work in close cooperation with colleagues in the developing countries. These programmes will deal with crop production in salt-affected soils, use of induced mutations and in-vitro culture techniques for improving plant disease resistance, improving oil crops and cereals, improving sheep and goat productivity, animal nutrition, DNA probe and immuno-assay for disease diagnostics, eradication of fruit flies, studies of pesticides and their residues as well as food irradiation.

- Rural Development

21. FAO's activities in the region will continue the promotion of exchange of information and experience on socio-economic issues, together with action-oriented cooperative field projects, concerned with maintaining farm and rural incomes and full employment of rural populations, and discouraging further migration to urban areas.
22. In 1990-91 they will:
 - continue research programmes and policy-based field demonstration projects on rural employment and pluriactivity;
 - expand farm management activities by encouraging interested Member Nations to organize training symposia with FAO support, and to include global farm management objectives and farmers' participation in the decision-making processes, on the basis of pluriactive development projects;
 - support the modernization of national extension services, at the request of Member Nations. International courses on extension communication and delivery techniques will be followed by national seminars with FAO assistance;
 - support the FAO/ECE Working Party on Agrarian Structure and Farm Rationalization which will work on problems of new forms of agricultural and agro-industrial cooperation, including new forms of pluriactivity in rural areas;
 - establish a study group on rural development and farm income policies within the Working Party on Women and the Agricultural Family in Rural Development, in order to investigate the factors affecting the socio-economical situation of rural families.
23. Particular use will be made of policy-based field projects and training-by-doing schemes. Policy-based field projects are jointly formulated by FAO and Member Nations, but their implementation remains the responsibility of Member Nations. Training-by-doing schemes are considered to be more effective than formal training sessions. They become an integral part of field projects, after an initial phase of conceptual analysis and of exchange of information and experience.
24. An FAO/ECE symposium on the use of agricultural land for non-food purposes will be held in 1991 in Austria.

- Nutrition

25. Activities will continue on the elaboration and/or revision of commercial quality standards for international trade (various types of meat, dry and dried fruit and fresh tropical fruit). Work will continue through the FAO/WHO Codex Alimentarius Commission in regard to the elaboration of international standards of fruit juices, tropical fruits and for raw and processed agricultural commodities.

26. Training in various aspects of food control, including management of national programmes and laboratory practices will continue for the benefit of participants from selected countries, in cooperation with national food control authorities and the FAO/WHO Collaborative Centre for Research and Training in Food Hygiene and Zoonoses (West Berlin).

- Food and Agricultural Information and Analysis

27. Annual FAO/ECE reports will be prepared on: overall agricultural developments in the region; agricultural trade in Europe; market situation for major agricultural commodities (livestock and meat, dairy products, cereals and eggs); prices of agricultural products and selected inputs; and outputs and inputs in agriculture in the region. Periodic special reports will be prepared on commodity markets of particular interest to southern European countries.
28. SOFA regional reviews will continue and will include reviews of the food and agriculture situation, and the outlook in the market and centrally planned economies. The prospect paper: "European Agriculture - 2000" will be updated.
29. Crop conditions and the situation and outlook for food demand, supply and trade of the region will continue to be monitored and regular assessments prepared in the framework of the Global Information and Early Warning System.
30. With regard to statistical methodology, the FAO/ECE/CES Study Group on Food and Agricultural Statistics will work on the following subjects in 1990/91: supply and demand of agricultural statistics, quality data control (including data derived from mail surveys and farm registers) and the use of computers in agricultural statistics; monitoring development in remote sensing; national experiences and practical issues associated with agricultural census (including possible links with population and housing censuses).

- Food and Agricultural Policy

31. On the basis of material provided by countries, annual summary reports will be prepared on recent agricultural policy developments. Current commodity policy issues will be dealt with in various commodity market reports and in the framework of the FAO Intergovernmental Commodity Groups. Financial flows between developed and developing countries connected with agriculture will be monitored, assessed and reported. The implications of developed country policies and programmes on the performance of the food and agriculture sector in developing countries will be addressed and reported.
32. The European Research Working Group on Agricultural Economy and Policy is being established with the task of monitoring and evaluating agricultural policies at a technical level. Its main aims will be to improve understanding of economic, food and agricultural policies and

their evolution, to assess consequences on the performance of the agricultural sector, to promote discussion between analysts of eastern and western Europe on agricultural policies. This will provide the basis for further contributions to the SOFA and other reports.

33. Planning assistance will be given to some countries in the region, for example, Cyprus, where work has begun on agricultural policy analysis, particularly with regard to Cyprus' relations with the EEC.

II. FISHERIES

The Regional Setting

34. In Europe, most countries have the scientific and technical capacity to develop and manage their fisheries. Therefore, except in a few cases, the requirement is not to improve such national capacities but to coordinate national activities and policies at the regional level, especially those related to resources exploited in common or involving interaction between several countries sharing a common water mass.

Medium-term Objectives

35. In the medium term, the objective is to:
- promote the effective development and management of marine and inland fisheries, as well as aquaculture, the coordination of national activities and policies, the exchange of information and, in some cases, assistance to less developed countries.

Plan of Action

36. Two FAO regional fishery bodies are relevant to Europe: the European Inland Fisheries Advisory Commission (EIFAC) which covers the whole of Europe, and the General Fisheries Council for the Mediterranean (GFCM), the members of which are riparian countries of the Mediterranean and the Black Sea in Europe, Western Asia and North Africa.
37. EIFAC is responsible for advising governments on the development and management of inland fisheries and aquaculture, as well as on measures to maintain a healthy aquatic environment. The main problems involving international cooperation, to which the Commission is giving priority are: the culture of crayfish; the development and production of eel resources; research on the effectiveness of stocking as a management tool; studies on several aspects of aquaculture, including the withdrawal period required for removing traces of drugs; prevention and control of predation by birds; and research on development of feeds for larval fish. In the field of environment, the Commission will continue to examine the polluting effects of fish-farm effluents; collecting information on accumulated toxicants in fish; research on the toxicity of pesticides, and reviewing the physical modifications of the aquatic habitat of fish populations. EIFAC will organize, in

conjunction with its Sixteenth Session in 1990, a symposium on production enhancement in still-water pond fish culture. Beyond providing the major mechanism for interchange on fisheries matters for the whole of Europe, EIFAC also plays a significant role in transfer of technology to developing countries and other fishery regional bodies regarding inland fisheries and aquaculture.

38. The General Fisheries Council for the Mediterranean (GFCM) will continue its ongoing activities related to the evaluation of the fishery resources with a view to their rational management and utilization. The following activities for the forthcoming biennium were recommended by GFCM at its Nineteenth Session held in Livorno, Italy in March 1989:

- increased attention to be given to economic and social considerations in fishery management through a new working party which will inter alia promote bio-economic and socio-economic research and strengthen the exchange of expertise in this field among members;
- in cooperation with other competent international organizations, more detailed studies of the effect of environmental variations on the abundance of actual and potential fishery resources;
- more emphasis on artificial reefs and mariculture;
- preparatory steps for a potentially binding management measure regulating the size of trawl mesh in the Western Mediterranean. The matter will also be reviewed by member countries bordering the Adriatic and Ionian Seas.

III. FORESTRY

The Regional Setting

39. Forests cover one third of Europe's land area. As in agriculture, the management and utilization of the forest resources varies considerably within the region, as does the nature of problems. Generally, the relative importance of non-timber products and services from the forest is increasing, though wood production is still the most important forestry activity.
40. The majority of European countries have large wood deficits. An important feature of their policies is to reduce their dependency on imports through more intensive management of existing resources and, where suitable, through afforestation. A principal concern, nearly everywhere, is the health and vitality of forest resources. While this is receiving close attention in several central European countries, where air pollution is a major contributor to the damage occurring in forests, other types of damage or threat are found throughout the region. Some are of human origin, such as forest fires (the main danger around the Mediterranean) and tourism-induced damage; others relate to natural causes, such as storms, avalanches, snow, insects and diseases.

41. The latest inventories show that Europe's forest resources have continued to expand gradually in terms of area and volume and, at least from the physical point of view, could supply increasing quantities of wood and other goods and services. Apart from the threats mentioned above, other constraints to the more intensive management and fuller utilization of these resources include economic, technical, institutional and environmental factors. Measures to make fuller use of the resource must also go hand in hand with the strengthening of the forest industrial base and the marketing and utilization of forest products. Much can be done to assist countries in overcoming these problems through more active international exchange of information, experience and know-how, in particular through the operational framework of FAO's programmes for the European region. An important facet is the transfer of experience gained in Europe to countries in other regions.

Medium-term Objectives

42. The medium-term objectives are to:

- provide European governments, on a continuing basis, with reliable information on developments at the national and international level concerning forest resources, forest products industry and trade, markets, etc.;
- provide objective analyses of the medium- and long-term outlook for the forest and forest industries sector, for policy formulation and decision-making;
- assist Member Nations in the conservation and protection of their forest resources;
- foster the exchange of information between countries on multiple technical and economic aspects of forestry and forest industries;
- collect and publish statistics covering the whole forestry sector, and improve their quality and comparability.

Plan of Action

43. Activities relating to the forestry and forest industry sector in the European region will concentrate on the following:

- collection, by means of a questionnaire, of information for the FAO/ECE Forest Resource Assessment 1990 from countries in the ECE region (Europe, the USSR, North America). The assessment will cover traditional forest inventory fields, as well as total wood biomass and the role of forests in supplying environmental and other non-wood benefits;

- protection and conservation of the forest resources against fire, air pollution and other forms of damage, including measures for control and restoration. Work on the practical application of satellite remote-sensing for the assessment of forest damage will be continued;
 - preparations for the next study of long-term timber trends and prospects in Europe, including development of appropriate methodologies and the necessary data base. Monitoring of medium-term trends in specific market sectors and comparing them with forecasts in the long-term study published in 1986 will continue;
 - monitoring of short-term trends in forest products markets and the publication of market information;
 - collecting and publishing information on the structure and capacity of the forest industries and the exchange of economic and technological information on these industries;
 - exchange of information, by way of seminars, studies and teams of specialists on forest technology, management and training;
 - collecting and publishing forest and forest products statistics and improving their quality and comparability;
 - transmitting the experience gained and information generated in the European region on the forest and forest industry sector to governments and experts in other regions.
44. In the field of forest resources and environment, the Forest Resource Assessment 1990 for the ECE region will be coordinated with similar activities directed to other regions. The activities of the European Forestry Commission's Working Group on the "Impact of Air Pollution on Forests" will continue, and will be coordinated with those of the ECE Timber Committee. Particular attention will be given to improving the quality and coverage of information needed for policy formulation on the reduction of emissions and measures to lower the negative impact on the forest ecosystem. Activities on the prevention and control of forest fires will be intensified, including exchange of experience on suitable silvicultural techniques and on aspects of public information and education.
45. Under forest industries and trade, activities in 1990-91 will comprise:
- regular analysis of short-term trends and prospects in the forest products markets. Reviews will be published twice a year. A survey will be undertaken of the structure and capacity of the sawmilling industry;
 - surveys of the medium-term trends in the markets for specific groups of forest products in relation to the forecasts made in "European Timber Trends and Prospects to the Year 2000 and Beyond" (ETTS IV).

46. Activities on forest investment and institutions are carried out through the Joint FAO/ECE/ILO Committee on Forest Technology, Management and Training and the Joint FAO/ECE Working Party on Forest Economics and Statistics, as well as their parent body, the European Forestry Commission. The Joint Committee will hold its Eighteenth Session in Munich in 1990, and seminars will be held during the biennium on protection and improvement of soils as a basis for sustained forestry; chemicals in forestry; thinning operations; forest fires, land use and people; vocational training; and harvesting of wood for energy purposes, the selection of topics depending on further consultations with concerned countries. Teams of specialists will work on specific areas as assigned to them by the Joint Committee. A Forest Fire Newsletter will be issued biannually.
47. The Joint Working Party on Forest Economics and Statistics will hold its Eighteenth Session in 1991 and its activities during the biennium will include wood supply forecasting (a workshop in 1990), productivity in the forestry and forest industry sector, forest products prices, methodologies and data bases for long-term forecasting, conversion factors, forest fire statistics, classification and definitions of forest products, and the transfer of economic and statistical methods and experience in the forest and forest products sector.

REGIONAL ESTIMATES BY PROGRAMME (\$000, All Funds) - EUROPE

Programme	Regular Programme				Extra-Budgetary	Total
	Headquarters	Regional Offices	Country Offices	Total		
1.1.1.7 Regional Conference	200	0	0	200	0	200
2 Technical and Economic Programmes	(4 859)	(4 137)	(0)	(8 996)	(6 465)	(15 461)
2.1 Agriculture	(2 883)	(3 132)	(0)	(6 015)	(6 052)	(12 067)
2.1.1 Natural Resources	40	300	0	340	0	340
2.1.2 Crops	579	532	0	1 111	337	1 448
2.1.3 Livestock	211	152	0	363	1 300	1 663
2.1.4 Research and Technology Development	511	52	0	563	421	984
2.1.5 Rural Development	90	504	0	594	3 952	4 546
2.1.6 Nutrition	149	158	0	307	0	307
2.1.7 Food and Agricultural Information and Analysis	491	276	0	767	0	767
2.1.8 Food and Agricultural Policy	716	511	0	1 227	42	1 269
2.1.9 Programme Management	96	647	0	743	0	743
2.2 Fisheries	1 361	0	0	1 361	193	1 554
2.3 Forestry	615	1 005	0	1 620	220	1 840
3 Development Support Programmes	(249)	(0)	(552)	(801)	(579)	(1 380)
3.1 Field Programme Liaison and Development	69	0	0	69	103	172
3.2 Investment	150	0	0	150	352	502
3.3.1 FFH/AD	30	0	0	30	0	30
3.4 FAO Representatives	0	0	552	552	124	676
4 Technical Cooperation Programme	1 355	0	0	1 355	0	1 355
5 Support Services	(0)	(272)	(0)	(272)	(0)	(272)
5.2.1 Administrative Services	0	272	0	272	0	272
TOTAL	6 663	4 409	552	11 624	7 044	18 668

LATIN AMERICA AND THE CARIBBEAN

I. AGRICULTURE

The Regional Setting

1. Compared to the rest of the world, the region is well endowed with natural resources. While it covers 15 percent of the total world area, it has 20 percent of the agricultural land, 24 percent of the forests or woodlands, 11 percent of the inland waters, and most countries have direct access to major fishing zones. Scarcity of land is not a severe constraint to agricultural development, as the region's land reserves represent more than three times the area presently cultivated. In fact, it is estimated that the region's potential population-supporting capacity could exceed by at least 60 percent its projected population by the year 2000. Although this overall positive picture conceals large differences in endowment between and within countries, some of them quite critical, it unequivocally indicates that the region could easily satisfy aggregate regional food needs and produce a considerable surplus for export. Thus, it is primarily the institutional, technical, political, economic and social factors which bring to bear their negative influence on agriculture rather than the extent of land, water or other natural resources. In effect, during the 1980s, after three decades of considerable economic and social progress, the Latin America and the Caribbean Region has experienced a period of protracted and widespread economic and social problems. Despite the wide disparity in individual situations and policy responses, few countries have been able to achieve sustained growth during the decade. As a result, the per capita regional product is similar to that attained ten years earlier, rampant inflation is afflicting most countries with annual rates often above 400 percent, real wages have fallen in general and the productive sectors of the economy have been severely affected.
2. External factors have exercised a powerful influence, such as the sluggish international demand of the early and mid-eighties, protectionism in most developed countries, the massive outflow of financial resources, averaging 4 or 5 percent of the GDP and the heavy external debt due to the contraction of capital inflows and the simultaneous sharp increase in external payments. These factors have generated throughout the region a spiral of inflationary pressures, weak investment and pervasive resource constraints. The option left to Latin American and Caribbean countries was, and still is, largely the stimulation of substantial trade surpluses. However, in the last two consecutive years, the significant upturn in the value and volumes of some regional exports has not been enough to regenerate fast growth. Only a small proportion of the related surplus was used to finance much needed imports, with debt-servicing and transfers leading to a net financial outflow estimated at close to US\$ 30 billion in 1988.
3. While external factors have played a decisive role, internal factors have also contributed to the above problems. Well known economic, social and political imbalances exist in the region. The model of development based on urban-centred industrialization, import substitution and export promotion has outlived its early benefits. In many

cases, domestic spending was stimulated through distorted exchange rates, tariffs, credit and fiscal policies which resulted in increased imports and additional requirements for external financing. Thus, many countries were forced to enact abrupt adjustment and austerity measures.

4. Adjustment has often been carried out within the framework of loans typically involving conditionality packages comprising restrictive monetary policies; fiscal austerity through sharp cuts in public expenditure, tax reform and higher public service fees; realignments in currency rates through devaluations; and control of income growth, particularly real wages. In many countries, adjustment coincided with extremely difficult political and social situations leading to falling real incomes, high unemployment and civil disturbances. Growth and stability were also affected by a series of severe natural disasters. However, a few encouraging signals are the above-mentioned significant upturn in the region's trade balance and the international recognition of the political and social implications of the debt problem and of the legitimacy of the principle of co-responsibility.
5. The adjustment policies adopted by most countries in the region have affected agriculture in several ways. On the positive side, currency devaluations and export support policies have led, in some cases, to more competitive agricultural prices and favoured both import substitution and exports. However, in other cases, the results have been disappointing, because of the fall in international prices or because agricultural producers, the food-processing sector and the production of agricultural inputs were adversely affected by devaluations or adjustment-induced increased costs. The sharp reduction in imports severely restricted the supply of essential inputs in several countries. With the exception of only two countries, the limits placed on public expenditures have forced governments to considerably curtail public expenditure on agriculture including infrastructure, agricultural research and extension, credit, land development and conservation. Many countries drastically reduced or eliminated subsidies in their agricultural and food distribution programmes. Social services, including health and educational services, were reduced especially in the rural areas. Food demand growth was negatively affected for the region as a whole, and rural poverty is still intractable.
6. For many countries of the region, agricultural exports account for a substantial share of total exports. Two-thirds of the 33 countries are net exporters of agricultural products and their value represents one-third of total export earnings. Protectionist measures and export subsidies practised in a number of developed countries, negatively affect market access of the region's agricultural and agro-industrial products. Beyond reducing export earnings, artificially low world prices inhibit the expansion of intra-regional trade as well as act as a disincentive to promoting domestic production. The region's potential for trade in agricultural products thus depends considerably upon the success of ongoing multilateral trade negotiations. In these negotiations, a main objective of the Latin American and Caribbean countries is to modify the protectionist agricultural policies of the industrialized countries, minimize restrictions on access to markets and reduce export subsidies. The region is also advocating adequate, transparent and permanent rules concerning safeguard mechanisms and countervailing duties, in order to avoid ad hoc measures, including sanitary rules and procedures, when utilized as a discriminative trade restriction against other countries' exports.

7. At the same time, the difficult regional circumstances have highlighted the potential contribution of agriculture. In effect, the sector's performance has compared favourably with that of other sectors of the economy, particularly manufacturing, one of the most dynamic sectors in the past. Agriculture has evidenced a long-term anticyclical tendency with faster rates of growth than the rest of the economy, and thus proved to be resilient. Additionally, in many countries, sectoral supply responses have reacted promptly to incentives, monetary or otherwise. As a consequence, planners and policymakers are reconsidering the role of agriculture and the rural sector in development, towards the resumption of growth.
8. In the renewed role envisaged for agriculture, increasing agricultural production will be imperative. For the past three decades, an average of nearly two million hectares were opened up each year for permanent crops. Thus, raising agricultural output has been achieved primarily through the expansion of the area harvested, with yield improvements and other productivity gains only gradually contributing to growth. As the expansion of the agricultural frontier becomes more costly and less attractive for ecological reasons, production increases in the next decades will rest on a more balanced combination of further increases in cultivated area and productivity gains. There are strong indications that in many Central American and Caribbean countries, the expansion of the agricultural frontier has reached its physical limits. In other countries, this expansion would imply the incorporation of marginal areas of difficult access. In general, the rapid increase in cropped area has permitted many countries to relieve pressure on land in densely populated areas but has not significantly alleviated rural poverty. Additionally, the resulting loss of forest resources has serious economic and ecological implications, whereas the transformation of pastures into farming land constrains the livestock sector.
9. Ecological threats are observed throughout the region but especially in the highland and rain-forest areas. The two main causes of ecological damage are the uncontrolled expansion of the agricultural frontier and the exhaustion of soils through inappropriate farming practices, especially among peasants. Forest felling and expansion of cultivated areas are also the result of migratory and transitory forms of agriculture. In the rain-forest areas, ecological damage has often led to climatic changes, rapid soil erosion and irreversible disturbances of fragile systems. In mountainous regions, soil exhaustion in small peasant farming communities is widespread. Other common causes are population pressures, the disappearance of traditional soil conservation practices, occasional undesirable effects of privatization of scarce land resources and unplanned pressures for marketing of production.
10. On the social scene, the achievements of Latin American and Caribbean agriculture, in terms of equity and balanced rural development objectives, have been uneven. The agricultural modernization of Latin America, while gradually overcoming the traditional latifundia-minifundia dichotomy, has created other forms of highly differentiated agrarian systems. In general, the bi-modal sectoral pattern has been reinforced, with highly modernized agricultural enterprises on the one hand, and the traditional small scale of peasant agriculture on the other. Several studies show that the modern commercial agricultural sub-sector has benefited most from large public investment in agriculture, land taxation, mechanization and other input subsidies, technological development, pricing policies and generous credit programmes.

Attempts to reform the agrarian structures in Latin America have brought about few significant changes in land concentration patterns. In fact, land concentration has largely remained unchanged since 1950 and today land distribution patterns in Latin America remain among the most inequitable in the world. The concentration of land is accompanied by control over water resources and over lands with agronomic and economic potential. In sharp contrast, it is estimated that rural poverty affects some 85 million people, two out of every three rural dwellers. Not only has the number of rural poor increased, but other categories of poor have been emerging. Small landowners, landless workers and indigenous people have been joined by growing numbers of temporary farm workers, destitute female household heads and jobless young people. The results of strategies to alleviate rural poverty with a combination of agrarian reform, land settlement and integrated rural development measures have often had limited impact, either because they failed to reach the poorest or because of operational problems.

11. Rapid urbanization and the expansion of agro-industry have induced significant changes in food consumption patterns, which have often discriminated against peasant farming. The decreasing role of indigenous foods and greater consumption of products typical of temperate zones have not only increased food imports and external dependency, but also resulted in harmful distortions in the comparative advantage in food production of tropical or highland areas. Small farmers have suffered from these trends because of their concentration on traditional staples. They also suffer from other handicaps such as the relative unsuitability of their holdings to shifts to new crops and difficult access to credit and modern inputs which are prerequisites for crop diversification and livestock enterprises. Labour-saving technologies have reduced the need for full-time workers but induced demand for unskilled seasonal workers. The combination of semi-subsistence farming and large numbers of landless agricultural workers, have perpetuated rural poverty and very low living standards.
12. Nutritional gains have also been highly uneven. Non-indigenous foods, in most cases, have displaced, rather than supplemented, traditional staples. The benefits from diet diversification have been confined, to a large extent, to affluent urban consumers. Low-income consumers often have to buy lower quality food which is relatively highly priced at small shops or markets. In general, unsatisfactory nutritional conditions continue to prevail in many countries of the region. In the eighties, declines in food intake have accompanied economic recession and affected almost two-thirds of the countries of the region. These declines in average caloric consumption and concomitant increases in unemployment in more recent years, suggest that the incidence of under-nourishment has considerably worsened. Pockets of malnutrition have developed even in countries with relatively high levels of dietary supplies. The problems of malnutrition mainly reflect distortions in the distribution of income and wealth and uneven access of various population groups to food supplies. To counter this, some countries have implemented programmes for the benefit of the most vulnerable groups. The design and implementation of various types of food security policies have also progressed. However, the crisis of public finances and adjustment policies have exacerbated problems of food access and curtailed public support.

13. Despite the above-mentioned adverse factors, overall conditions in the region remain favourable to agriculture and rural development. In view of the erratic nature of international demand, higher priority should be given to an expansion of domestic demand for agricultural products. The region can substantially increase agricultural production and productivity in the short term, with available resources and technology. The abundance of natural resources and labour, the technical level attained and the practical experience acquired in most countries provide a sound basis for future development. A wider adoption of already existing technological innovations is necessary and, in particular, a socially-balanced modernization process, so as to reach the smaller scale producers and peasants and foster increases in productivity. The strengthening of small-scale and peasant agriculture through appropriate technology transfer, would stimulate higher employment and use abundant local resources rather than scarce and imported production factors. Exceptional opportunities exist to increase technical co-operation among the countries of the region. FAO has been instrumental in supporting such technological exchanges; these efforts should be promoted and intensified in both geographic coverage and subject matter.

- Potentials for Agricultural and Rural Development in Latin America and the Caribbean

14. FAO has just completed a major study for the region and defined a Plan of Action. The study included a review of the past - with special attention to the crisis years - which permitted the identification of potentials for and obstacles to rural and agricultural development, as well as the presentation of a strategy for the development of rural areas and agricultural modernization. Specific policy and programme actions to implement this strategy were also presented. Five annexes covered in detail overall development strategies and macro-economic and sectoral policies, rural poverty, food systems and food security, natural resources and environment, and, finally, prospects and policy actions for crops, livestock, fisheries and forestry. The regional Plan of Action is aimed at achieving two closely related objectives: to reorient non-agricultural policies in favour of the rural areas with the initial emphasis on basic socio-economic infrastructure to attract private investment, and to shift the emphasis within agriculture in favour of small and medium-scale producers and peasants.
15. The Plan of Action was approved at the Twentieth FAO Regional Conference for Latin American and the Caribbean held in Recife, Brazil, 2-8 October 1988. As requested by the Conference, FAO's regular and field programme activities in the region will be guided by the priorities and policy recommendations contained in the Plan of Action and Study reports. FAO shall also make all possible efforts to perform the role assigned to the Organization by the Conference, as indicated in the last section of the Plan of Action.

Medium-term Objectives

16. Through practical means such as technical cooperation networks, training activities and meetings, direct assistance to member countries, use of distance training and orientation, and issuance of manuals and technical publications, the following medium-term objectives will be pursued:
- promoting the rational utilization of land and water resources, as well as the improvement of farming systems;

- contributing to increased production of staple foods, especially those produced and consumed by rural and urban lower income groups, and non-food crops, as a source of income;
- ensuring wider recognition of the technological requirements of small peasant production;
- improving plant protection by providing national institutions with effective early warning systems and methods for diagnosis, control or eradication of plant pests and diseases;
- reducing the incidence of post-harvest losses and promoting sound post-harvest management practices according to the demands of internal and external markets;
- strengthening links between agriculture and industry through the development of agro-industries, promotion of agro-industrial exports and enhanced knowledge in food technology;
- improving livestock management systems, particularly through range management, small animal production, prevention and control of endemic and exotic animal diseases and assistance to veterinary diagnostic laboratories;
- encouraging agricultural research, especially interdisciplinary research geared to provide small farmers and peasants with a larger share of technical and institutional means of production;
- fostering the dissemination of low cost energy production technologies such as biogas, solar and eolic energy sources and efficient mechanization processes;
- supporting rural development programmes connected with rural extension, improvement of the peasant economy, alleviation of poverty, participation of women and youth, and agricultural marketing;
- reducing the incidence of malnutrition, through closer national and local food and nutritional surveillance, programmes for low-income groups and effective food quality control systems;
- strengthening national and sectoral statistical and planning capabilities;
- assisting in the analysis of foreign trade issues and policies and in export promotion of agriculture-based products;
- cooperating with member countries, regional and sub-regional agencies and bodies, by providing technical support to international trade negotiations and promoting trade within the region;
- responding to member countries' requests for in-depth studies and analyses of cardinal economic and social problems related to agriculture.

Plan of Action

- Natural Resources

17. The development of national capacities in the preparation of irrigation development projects and management of land and water resources, including watershed management, will be further strengthened through the Technical Cooperation Networks on Development of Lowlands subject to Flooding and on the Utilization of Natural Resources in the Semi-arid Chaco Region. The activities of the Regional Project on Prevention of Land Degradation in Agricultural Development Involving Irrigation and Drainage Schemes in Latin America will permit the provision of additional support in the same fields. Besides technical and logistic support to the networks, training and research activities will be intensified. Technical manuals especially adapted to the needs of the small farmers will be prepared and disseminated. Likewise, priority will be assigned to land and water development projects geared to small farmers' problems or to the generation of rural employment.
18. Under farming systems development, work will concentrate on adaptation of farm management techniques to the small farm sector. The identification of opportunities and constraints, the design of simple farm and household programming techniques and the enhancement of community development will be emphasized in training activities. Also, attention will be given to the potential development by small farmers of export commodities, to their acceptance of technological innovations and to their organized access to internal and external markets.

- Crops

19. In view of its labour intensity, nutritional value and export potential, the improvement and intensification of vegetable production will receive priority. With regard to food legumes, work will continue on cowpea and pigeon pea in the Caribbean and peas and lentils in the Andean countries. For roots and tubers, activities will concentrate on yams, cassava, taro and tannia in Central America and the Caribbean and on underexploited Andean crops. Similarly, work on cereals will address rice and sorghum. To increase productivity on small farms, a programme of transfer of simple technologies for production of food crops seeds will be implemented. Additionally, a proposal will be developed for cooperative activities applying new technologies for the production of fruits and vegetables in semi-arid areas. Cultivar trials and in-vitro germplasm exchange will continue, as a mechanism for promoting the introduction of new crops or new varieties. The Technical Cooperation Network on Food Crops Production will remain the main instrument to foster the above activities.
20. In the field of plant protection, TCDC activities on weed management, vegetable protection, fruitflies, cotton sanitation and biological pest control will be carried out by regional task forces and will be supported by workshops, newsletters and exchange of information. Training activities will continue to stress alternative control practices, based on pest management strategies adapted to the economic conditions prevailing in the small farming sector. The region-wide adoption and effective application of the International Code of Conduct on the Distribution and Use of Pesticides will be enhanced through training and information activities. Within the framework of the International Plant Protection Convention, the Caribbean Plant Protection Commission and other regional plant protection organizations will permit enhanced

cooperation on pest surveys, information and warnings through technical meetings, training courses and publications.

21. The post-harvest management problems of small farmers will be addressed through dissemination of information on improved storage systems and training activities covering the main factors which influence the conservation, quality and marketing of their products. The Technical Cooperation Network on Post-harvest Grain Technology will continue to be instrumental in fostering regional cooperation and will include the prevention of post-harvest losses in fruits and vegetables. The evaluation of post-harvest losses and the improvement of post-harvest management practices for domestic and external markets in fruits and vegetables will be pursued, paying special attention to the problems of export development. Training of extensionists and technicians on post-harvest management will continue. The exchange of experiences and research findings among regional institutions and the advocacy of regionally generated post-harvest technology will remain an ongoing concern.
22. Technical cooperation and exchange of information on the management and processing of tropical fruits with export potential will be supported through the activities of the Technical Cooperation Network on Tropical Fruits Processing. Training on agro-industries will be carried out, bearing in mind the involvement of small farmers at family and community levels. The identification of agro-industrial technologies suitable for domestic and export markets will be sought, with particular emphasis on the industrialization of fruits and vegetables processing and the processing of agricultural surpluses.

- Livestock

23. The Technical Cooperation Network among Veterinary Research and Diagnostic Laboratories will continue activities on neonatal diarrhoeas, hemoparasites, foot-and-mouth disease and viral diseases of swine. Reference services established by the network will be strengthened through improved bibliographic and epizootiological information, standardization of technical methodologies and the production and distribution of standardized reagents. The specialized groups of experts and the Reference Laboratories, instituted under the auspices of the network will seek to increase their regional coverage. A bulletin dealing with exotic diseases will be issued. The Regional Commission for Livestock Development and the Working Group on Biotechnology will be supported.
24. In the area of livestock production, training and extension on range management will retain priority. In this regard, management practices which permit small producers or communities to make a more effective use of scarce resources, will receive special attention. The development of small animals production systems will be promoted through dissemination of information and training on breeding, feeding and processing. Self-teaching manuals for small farmers will continue to be prepared. Genetic improvement through exchanges of breeding technology will be supported. The FAO/DANIDA Regional Dairy Development and Training Team for Latin America and the Caribbean will continue its operations in support of milk production and processing.

- Research and Technology Development

25. FAO will continue to cooperate with the relevant regional and national institutions to strengthen research systems. A reference framework for agricultural research will be developed in cooperation with concerned institutions. Interdisciplinary agricultural research will be promoted. The application of remote sensing techniques to agriculture, natural resources management and ecological impact will be encouraged. Training and TCDC approaches will be used to support the above activities.
26. The Technical Cooperation Network on Alternative Sources of Energy for Rural Development will continue to be the main mechanism for the promotion of integrated approaches based on the utilization of biogas, eolic and solar energy. Work on energy conservation will include support to the Technical Cooperation Network on Rational Use of Fuel in Agriculture. Adequate mechanization and fuel saving strategies will continue to receive special attention. Both networks involve training, TCDC and dissemination of experiences and appropriate technologies.

- Rural Development

27. The relevance of higher-level agricultural education to the needs of small farmers and the peasant economy will continue to be a main concern. This will involve assistance in curricula orientation and exchanges of information and experiences. Priority will also be assigned to the adaptation of basic rural education to the needs of rural youth. With regard to rural extension, training activities for extensionists and the production of training material will emphasize research results applied to peasants and small farmers. The analysis of organizational measures to improve the effectiveness of extension services will be pursued. RLAC will expand its successful Distance Training and Orientation Programme.
28. The design of effective development strategies for the peasant economy will include elements such as simple methods to identify profitable products, appropriate technologies, practical farm management techniques, processing, marketing for domestic and potential export markets, and popular participation. Additionally, selective studies will address the dynamics of rural poverty with particular reference to groups such as the landless and temporary workers, small landowners, indigenous people, women and youth.
29. The design and effective operation of income-generating projects and small enterprises for peasant women, as well as the active management of organizations of rural women and youth will be promoted through training, publications and case studies. The contribution of legislation and juridical systems in ensuring greater participation of women in development will also be the subject of studies, TCDC activities and publications.
30. Under marketing and credit, priority will be assigned to the formulation and evaluation of marketing techniques and strategies which could reduce production and consumption differentials of various agricultural products. Based on the findings of recent studies, measures to improve rural financial services and small farmers' access will be promoted. Through the Technical Cooperation Network on Agricultural Marketing and Food Supply, training and technical exchange activities will cover

price formulation and marketing policies, problems related to the operation of food markets, and the organization of marketing associative structures.

- Nutrition

31. The Technical Cooperation Network on Food and Nutrition Surveillance Systems (SISVAN) will continue its training activities, exchanges of information and experiences and expand its geographical coverage. After successfully integrating health and agriculture elements into the SISVAN methodology, work will concentrate on incorporating planning and economic aspects. A regional perspective will be inserted into planned national SISVAN workshops and seminars.
32. Food and nutritional problems stemming from accelerated urbanization will continue to be studied with a multidisciplinary approach. For this purpose, training activities and workshops are planned. Consumption of local crops will be promoted with due account of different phytogenetic, production, processing and marketing aspects. Food quality control and consumer protection will also require attention. Food and nutrition aspects will be reflected in the training of agricultural professionals and technicians, as well as in agricultural and rural development programmes and projects.

- Food and Agricultural Information, Analysis and Policy

33. Within the framework of the Plan of Action for Latin America and the Caribbean and recommendations approved by the Twentieth FAO Regional Conference, data collection and analysis activities will be systematically reinforced. Regional and national information systems will be upgraded and extensive use will be made of computer-assisted statistical work and data banks. The Joint ECLA/FAO Agricultural Division will prepare reports on the short- and medium-term perspectives of regional agriculture, taking account of changes in national economic and social programmes and policies and their repercussions on the food and agricultural sector. Inputs will continue to be provided to the preparation of the State of Food and Agriculture in Latin America and the Caribbean.
34. In the wake of the Plan of Action, FAO will assist member countries of the region, upon request, in the formulation of detailed national agricultural and rural development strategies, policies and plans, and provide policy and planning advice to governments. Technical exchanges and access to selected bibliographic information will be promoted in the following fields: (a) information systems for planning; (b) projections and construction of alternative scenarios; (c) relationships of agricultural planning with macro-economic policy; (d) price policy, subsidies and regulation/liberalization of markets; (e) incentives to export development. The regional project PROCAPLAN will provide complementary training activities.
35. Regarding trade issues, RLAC will seek improved information systems on export markets for agricultural, fisheries and forestry products for the benefit of producers, export promotion institutions and export enterprises. Exports of horticultural products will receive particular attention in view of their importance to small producers. A bulletin on short- and medium-term prospects of basic products will be

disseminated to interested national institutions. Support to the Ad Hoc Group on Meats will continue, linking its activities to the work of the Regional Commission for Livestock Development.

36. The analysis of issues and promotion of regional and sub-regional trade and food security will be pursued in collaboration with integration agencies such as ALADI, JUNAC and SIECA. Complementarity of activities will also be sought with SELA and its Action Committees, such as CADESCA, and with JUNAC for regional and sub-regional food security. Training in food security and supply policies and technical exchanges on different aspects of food security will be supported.
37. Following the adoption of the Plan of Action, the Joint ECLAC/FAO Agricultural Division will analyse the effects of agricultural adjustment processes on: the expenditures and incomes of farmers; the evolution of agricultural productivity; the pace of technological innovation; capital formation in agriculture; the market fluctuations of agricultural products; the nutritional status and the environmental situation of the concerned countries.

II. FISHERIES

The Regional Setting

38. The region has a recognized fishing potential. Under managed conditions, fishery resources can make a substantial contribution in terms of economic, social and nutritional benefits. The region's endowment suggests that it should be possible to satisfy the regional demands, and that a substantial quantity should be available for export, especially as fishmeal. This should hold true, even if the estimates of potential yields of some fish stocks are still incomplete and total catches have varied greatly due to unpredictable changes in environmental conditions, to which small pelagic species are particularly sensitive. The present levels of human resources as well as technological development, particularly in industrial fisheries, represent positive factors for future fisheries development.
39. There are, however, a number of obstacles to tapping the full potential of fisheries in the region. One of them is the over-exploitation of important resources in some areas, in particular the Western Central Atlantic maritime area, affecting 22 of the 33 countries of the region. Besides problems of overfishing, there is a highly concentrated pattern of demand at national, regional and international levels and a lack of capital to renew and/or expand fleets and infrastructures. Pollution and deterioration of the aquatic environment caused by industrial development and rapid urbanization are also issues of growing concern. Finally, there are problems in the expansion of domestic demand in most countries: the lack of a strong tradition in fish consumption (except in most Caribbean island states); the deficiencies in distribution and marketing systems; and the high prices of fish relative to other food products.
40. The bi-modal pattern which exists in rural areas also characterizes the fisheries sector. In most countries of the region, this dualistic structure of the fishery sector has shown little change over the last 15 years. The capital-intensive, export-oriented industrial fishing segment has developed faster than the labour-intensive, domestic market-oriented small-scale one. The development potential of small-scale

fisheries is negatively affected by institutional and financial bottlenecks which prevent technological improvement and increased efficiency and productivity. But, when the importance of small-scale fisheries has been properly recognized, integrated development plans at community level have been effective in improving the economic and social conditions of fishing communities.

41. The Latin American and Caribbean fisheries sector contributes a large share of the world catch. In 1986, this share was 15 percent, nearly twice the region's share in the world population, despite the effects of economic difficulties. Marine fisheries account for 95 percent of production, although there has recently been a notable increase from aquaculture and inland fisheries. A large share of the catch is processed into fishmeal. The region's share of world fishmeal production was 40 percent in 1985. In addition to the large capacity to manufacture fishmeal, there has been substantial growth in fish processing for food, induced both by export demand and government programmes to stimulate domestic use. This includes facilities for producing fillets, freezing, smoking/curing, canning and packing. Projections to the year 2000 indicate that regional demand alone could reach 7 million tonnes for human consumption and up to 5 million tonnes in fishmeal. However, to satisfy these levels, a significant expansion in intra-regional trade would be required. There are, in fact, marked differences in consumption within the region. The Caribbean, with the exception of Haiti and the Dominican Republic, has considerably higher fish consumption than the rest of the region and over the world average. In South and Central America, the average per caput consumption is below that for the developing countries as a whole.
42. Countries of the region are assigning an increasingly important role to fisheries as a source of export earnings, for domestic consumption and employment generation. National fisheries development is aiming at the highest possible degree of self-reliance, but requires considerable external assistance.

Medium-term Objectives

43. In accordance with the Strategy and the Programmes of Action endorsed at the World Conference on Fisheries Management and Development and the Plan of Action approved at the Twentieth FAO Regional Conference, the medium-term objectives are to:
 - assist member countries in the rational management and use of their fishery potential and in developing fisheries resources from marine, inland waters and aquaculture;
 - support small-scale and artisanal fisheries and promote the contribution of fisheries to food supplies and food security;
 - contribute to fisheries planning, management and development efforts in the region;
 - promote technical cooperation activities among countries of the region and collaborate with regional fishery bodies, outside or within the framework of FAO.

Plan of Action

44. Areas for priority attention will include the improved planning and management of fisheries, the better use of existing catches and discards, the promotion of consumption of fish now being processed into meal, and the development of unexploited inland potential and of areas within the 200-mile Exclusive Economic Zones. Special attention will also need to be given to the internal and external market development and the development of aquaculture and mariculture.
45. Training activities are planned for both subsistence and commercial aquaculture, with the multiple aims of diversifying production, providing alternative rural employment, especially for women, increasing local consumption of fish, and developing export potential. Training will address the promotion of shrimp culture, tilapia and other species by small producers; seaweed culture for consumption and for export as well as species which command high prices in international markets. In artisanal fisheries, training activities and exchanges of experiences are also planned. Ichthyopathology as a subject matter will be promoted in veterinary schools and in veterinary research and diagnostic laboratories. The Technical Cooperation Network on Aquaculture and the Caribbean Technical Cooperation Network on Artisanal Fisheries and Aquaculture will be key mechanisms in strengthening regional cooperation.
46. Requests from member countries for assistance in planning, management and development of fisheries, will be met. Within a TCDC framework, regional cooperation in inspection and quality control will continue, as well as the development of fish product technologies and the promotion of fish consumption. Data collection and analysis will build on ongoing activities of collection and dissemination of information on fisheries production and trade.
47. Support will continue to FAO regional fishery bodies: the Commission for Inland Fisheries of Latin America (COPESCAL), the Western Central Atlantic Fisheries Commission (WECAFC) and its Committee for the Development and Management of Fisheries in the Lesser Antilles, as well as collaboration with regional and sub-regional organizations such as the Latin American Organization for Fishery Development (OLDEPESCA).

III. FORESTRY

The Regional Setting

48. Latin America and the Caribbean hold one fourth of the world's forest area, over half of the world's dense tropical forests and the largest acreages of forestry plantations in the developing world. The forests contribute to an estimated US\$ 24 billion of annual regional output and lead to a wide range of industrial products. Forestry products, excluding the value added in processing, account for about 15 percent of the gross value of all primary agricultural products. The related demand is rising rapidly.
49. Population increases, the expansion of the agricultural frontier, migratory agriculture and indiscriminate exploitation practices have resulted in deforestation, degradation of watersheds and forest ecosystems, and further desertification in arid zones. Significant areas as well as large rural and urban populations are affected by the resulting floods and siltation of rivers and reservoirs. In addition

to the 200 million hectares that have already been deforested over the past 30 years (an area equivalent to Mexico), yearly deforestation rates are estimated to be in excess of 7 million hectares. On some of the islands of the Caribbean, forests have virtually disappeared. In the deforestation process, valuable genetic resources are destroyed and watersheds degraded. The "frontier economy" has too often considered forest resources as a virtually inexhaustible source. Between 1985 and the year 2000, the addition of an estimated 160 million people may require about 36 million hectares of land to be brought under cultivation.

50. Particularly acute problems are found in the humid tropical areas. On the other hand, only a small fraction of the potential of the tropical forests is utilized because of inaccessibility, absence of adequate forest management and, in some areas, low intensity of harvesting. In drier tropical areas, fragile soils and erratic climatic conditions represent other physical constraints to productivity of both agriculture and forests. A specially severe problem is genetic erosion. It has been estimated that losses of animal and plant species in the tropical forests by the year 2000 could range between 100 000 and 500 000 species. The importance of maintaining genetic diversity cannot be underrated.
51. About a fifth of the region's total energy is provided by fuelwood and in some rural areas, more than 90 percent of energy consumption is from fuelwood. About 60 percent of the region's population, or 250 million people, depend on fuelwood as their source of energy for cooking and heating. A tenth of fuelwood users live under acute fuelwood shortages. The demand for fuelwood is expected to rise in the medium term. This could compound problems of deforestation. But if fuelwood were to be instantly replaced by petroleum-derived products, the annual direct cost would be in excess of US\$ 8 billion. In this context, the need is for stable and environmentally sound systems to meet both household and commercial energy demands from forests. Particularly in areas of increasing fuelwood scarcity, the active involvement of rural people is a prerequisite to sustainable use of forests.
52. Recognized contributions of forestry to food security are to ensure environmental stability, mitigating the effects of climatic fluctuations, sheltering microclimates for animal and plant production and conserving soil, water and wildlife resources. Furthermore, forestry development can diversify the rural economy, and represents a source of employment and products essential for consumption. However, although the region has a high share of the world forests, it is a net importer of forest products. Only four countries, Brazil, Chile, Honduras and Paraguay, are net exporters. There is great scope to expand the role of forestry products for the generation of needed foreign exchange earnings. Forests also produce a large number of non-wood products such as resins, medicinal plants, foods and raw materials which provide the basis for local small-scale industries. Recent studies indicate that these products can make a very significant contribution to off-farm employment and the generation of cash or in-kind income in rural areas.
53. In summary, there is a critical need to use more rationally the region's forest resources. The orderly transfer of forest land^d to agriculture should be based on the suitability of this land^s for sustainable production. When this is not the case, alternative way^s of

employment promotion should be developed, based on forest production and the development of local forest industries. Examples from countries of the region clearly demonstrate the potential of forest and forest industries to significantly contribute to the national economy and to export earnings, while protecting the environment. Similarly, several countries, especially those with a long tradition in forestry development, have reached a high level of institutional and technological expertise. Therefore, valuable results can be obtained from technological transfer among countries, in particular by enhancing current cooperative mechanisms.

Medium-term Objectives

54. The Tropical Forestry Action Plan for Latin America and the Caribbean has been derived from the global Tropical Forestry Action Plan (TFAP) and was adopted by the Latin American Forestry Commission in April 1988. It has received wide support both from the countries of the region and the donor community. In accordance with the Tropical Forestry Action Plan for Latin America and the Caribbean and the Plan of Action approved at the Twentieth FAO Regional Conference, the medium-term objectives include:

- promotion of agroforestry development and sound agroforestry management practices;
- support to planning and management of integrated watersheds, rational utilization of wildlands and wildlife, sound management of national parks and protected areas, and conservation of genetic diversity;
- promotion of national fuelwood and wood energy programmes and the active participation of rural communities in their design and execution;
- dissemination of proven technologies and promotion of forest industries based on local natural forests and small and medium-size plantations;
- assistance in the integral planning and management of large ecosystems shared by two or more countries;
- strengthening of national forestry institutions;
- enhancement of research systems and the upgrading of data collection and analysis, especially through the establishment of data banks;
- promotion of technical cooperation among countries of the region in accordance with the recommendations of the Latin American Forestry Commission (LAFC).

Plan of Action

55. Assistance will be provided in the preparation of national forestry plans, programmes and projects. These will build on the strategies and action programmes embodied in the regional Tropical Forestry Action Plan which covers five priority areas: forestry and land use, forest-based industrial development, fuelwood and energy, conservation of forest ecosystems, and institutional development.

56. The five regional Technical Cooperation Networks active in the area of forestry will continue TCDC activities. Four of these networks deal with watershed management; national parks, other protected areas and wildlife; agroforestry systems; and wood-based energy in Latin America. The fifth one, centred on the Caribbean, deals with watershed management. The TCN on National Parks, other Protected Areas and Wildlife will receive support from the related joint FAO/UNEP project, especially with regard to training activities, technical assistance and exchange of experiences amongst the member countries of the network. In all the networks, emphasis will remain on practical training courses, workshops, itinerant seminars and other forms of training. Exchange of personnel will also continue. The production of manuals, technical documents and working papers will also feature as an ongoing activity of the networks.
57. Requests for technical assistance from member countries are likely to be forthcoming and will be met in the following areas: watershed management, in particular, integrated management of critical areas; in situ conservation of genetic resources; management of natural forests; integration of forestry into agricultural systems (agrosilvopastoral); afforestation of arid and semi-arid areas; development and management of small-scale forest industries; management of national parks and other protected areas; conservation and use of wildlife; fuelwood and energy projects; and institutional development, including strengthening of forestry services, supporting private and local institutions, developing training activities and improving extension and research.
58. Collaboration with regional and sub-regional organizations and education centres will continue. The Latin American Forestry Commission will be serviced. In the field of forestry statistics, data collection and analyses at the national and regional levels will be upgraded, through institutional and technical directories and the development of data banks. In the area of industrial development, emphasis will be given to small-scale forest industries with the objective of launching a regional project. The regional journal "Wildlands and Wildlife" will continue to be issued every four months.

REGIONAL ESTIMATES BY PROGRAMME (\$000, All Funds)
- LATIN AMERICA AND THE CARIBBEAN

Programme	Regular Programme				Extra-Budgetary	Total
	Headquarters	Regional Offices	Country Offices	Total		
1.1.1.7 Regional Conference	355	0	0	355	0	355
2 Technical and Economic Programmes	(25 511)	(9 703)	(0)	(35 214)	(57 145)	(92 359)
2.1 Agriculture	(18 901)	(8 132)	(0)	(27 033)	(40 219)	(67 252)
2.1.1 Natural Resources	1 654	703	0	2 357	8 470	10 827
2.1.2 Crops	3 517	1 576	0	5 093	4 704	9 797
2.1.3 Livestock	2 236	625	0	2 861	7 662	10 523
2.1.4 Research & Technology Development	1 593	350	0	1 943	2 070	4 013
2.1.5 Rural Development	3 959	1 202	0	5 161	10 919	16 080
2.1.6 Nutrition	2 289	302	0	2 591	380	2 971
2.1.7 Food and Agricultural Information and Analysis	1 274	537	0	1 811	1 091	2 902
2.1.8 Food and Agricultural Policy	2 226	2 012	0	4 238	4 888	9 126
2.1.9 Programme Management	153	825	0	978	35	1 013
2.2 Fisheries	4 117	797	0	4 914	4 494	9 408
2.3 Forestry	2 493	774	0	3 267	12 432	15 699
3 Development Support Programmes	(3 959)	(0)	(11 042)	(15 001)	(5 537)	(20 538)
3.1 Field Programme Liaison and Development	550	0	0	550	821	1 371
3.2 Investment	3 152	0	0	3 152	3 872	7 024
3.3.1 FFH/AD	257	0	0	257	0	257
3.4 FAO Representatives	0	0	11 042	11 042	844	11 886
4 Technical Cooperation Programme	12 198	0	0	12 198	0	12 198
5 Support Services	(0)	(1 505)	(0)	(1 505)	(2 000)	(3 505)
5.1.1 Public Information	0	581	0	581	0	581
5.2.1 Administrative Services	0	924	0	924	2 000	2 924
6 Common Services	0	787	0	787	0	787
TOTAL	42 023	11 995	11 042	65 060	64 682	129 742

NEAR EAST

I. AGRICULTURE

The Regional Setting

1. Agricultural development in the Near East Region is seriously hindered by harsh climatic conditions and by political tensions and social instability in some areas. A great part of the region is arid or semi-arid and suffers from persistent drought, desertification and chronic shortage of water resources. Water harvesting and supplementary irrigation are essential for the sustainability of agriculture and are widely practised. However, inadequate water management and insufficient drainage are conducive to salinization and waterlogging. Since about 80 percent of the cultivated land is still rainfed, most of it subject to marginal and highly fluctuating rainfall conditions, agricultural performance in the region is erratic. Moreover, there is virtually no land reserve for expansion of rainfed agriculture.
2. There is no single solution to the problems of rainfed agriculture in the region. However, by reducing the areas under fallow; by improving cultivation practices; by applying higher fertilization rates; and promoting the utilization of high-yielding varieties, it would seem possible to significantly increase agricultural production.
3. Beyond the aspect of natural resource endowment, other factors directly impinge on agricultural performance, in view of the extremely varied country situations by way of financial resources, production systems and policy stances. The region is spread across Western Asia and North and East Africa and is indeed demographically and economically diverse. Total population in the Near East Region amounts to about 400 million, but individual countries range from 0.4 to over 100 million inhabitants. The labour force employed in agriculture may range from 2 percent to over 70 percent of active population; the contribution of agriculture to GDP from 1 percent to nearly 60 percent; and the share of merchandise exports to GDP from less than 1 percent to nearly 100 percent. Crop yields range from the world's lowest to the highest, while in respect of food imports as a share of total imports, several countries are clustered around the overall average of 16 percent.
4. Many problems and issues affecting agriculture in the Near East, however, are directly or indirectly linked to reduced export earnings from oil and the consequent slow-down of economic activity and employment opportunities. Rapid population growth, generally rising standards of living, and rural migration to urban areas, have resulted in higher rates of demand for agricultural products and changes in food consumption patterns.
5. For the region as a whole, the years 1985 and 1986 witnessed greatly improved weather and a remarkable recovery in agricultural output. Recent estimates point to a further rise in agricultural output in the main producing countries of the region, which was most pronounced for cereals, pulses and oil-crops. On the other hand, the growth in livestock output fell below long-term trends, while the high demand for

white meat in the region may lead to further increases in poultry production. Most countries in the region have heavily invested in poultry enterprises to achieve self-sufficiency in both poultry and egg production.

6. Nevertheless, the agricultural situation in the region is characterized by a widening gap between domestic production and demand. The growth of agricultural production is still conditioned by wide fluctuations in rainfall and its seasonal distribution from year to year; by socio-economic and financial constraints; and by difficulties in the implementation of rural development programmes. In spite of the recent improvements in food output, the long-term growth prospects of food and agricultural production in the Near East are not vigorous enough to keep pace with population growth and with the effective demand. This is likely to cause imports to increase further. Intra-regional trade, so far, has played a very limited role in enhancing regional self-sufficiency. The cost of food imports remains, therefore, an issue of major concern. The region's dependency on external food supplies entailed an average import bill of US\$ 20 000 million a year during 1984-86. Consequently, the achievement of higher self-sufficiency remains a primary objective in the Near East Region calling for action on a broad front, as illustrated below.

- Natural Resources

7. In order both to expand areas under cultivation and intensify agricultural production from presently cultivated land, the rational use of water resources should be pursued in all countries of the region, through improved water management and conservation practices. Special attention should be given to land reclamation and re-use of marginal water, including sewage effluent for agriculture, supplementary irrigation and water harvesting, as well as to the improvement and rehabilitation of irrigation schemes and the control of waterlogging and salinity.

- Crops

8. The intensification and diversification of crop production for basic food crops such as wheat, maize, rice, food legumes and oil seeds, as well as industrial crops, require better agronomic practices and more appropriate cropping systems. Food legumes, mainly lentils, chick-peas and broad beans deserve particular attention as they constitute an important source of income to farmers and a valuable source of protein. The production of horticultural crops, such as citrus, grapes, olives, nuts, dates, banana, etc. also requires the adoption of new technologies, the introduction of improved varieties, and the use of modern post-harvest handling methods to reduce crop losses. More effective crop protection, quarantine and sanitation programmes need to be implemented in many countries.
9. In the agro-industries sector, the lack of adequate processing facilities and a relative neglect of valuable traditional processing technologies have hampered domestic production, processing and conservation of both food and non-food products. Furthermore, the weakness of supportive infrastructures, such as research institutes, training centres and extension services, has reduced opportunities for transfer of

technology. A determined effort is needed for developing and improving processing and conservation technologies and establishing viable agro-industrial units, which would give added incentives to farmers for increasing production.

- Livestock

10. While demand for meat and milk is expanding in most countries of the region, indigenous livestock and feed resources are not being efficiently utilized. Thus, to cover the increasing demand for animal protein recourse is made to costly imports. Another factor which hampers livestock production and the establishment of efficient animal production enterprises is the high incidence of infectious diseases. Inter-country cooperation and coordination of disease surveillance, diagnosis and vaccination are essential to control diseases like rinderpest, pleuropneumonia, foot-and-mouth disease and most recently, the American screw-worm fly. Existing research and development support capacities in the region should be more widely shared. TCDC on training, research and livestock development support activities may be largely expanded for mutual benefit of concerned countries.
11. The need for improved management of rangelands in the Near East Region is well recognized, as is the need to integrate rangeland management into existing socio-economic structures and farming systems. Despite some noticeable progress in management of the grazing lands which cover vast areas of the region, productivity remains subject to seasonal variations. Therefore, there is a need to increase cultivation of fodder and to integrate legumes into crop rotation to replace fallow. This practice also contributes to maintaining soil fertility through biological nitrogen fixation. National programmes for the production of improved seed of forage species must be developed. Attention should also be placed on the collection, evaluation and pilot production of seeds, and field-level testing of pastures and fodder legumes to identify varieties and ecotypes suited to the various ecological zones.

- Research and Technology Development

12. National capabilities in research, technology development and the application and transfer of research results to farmers are still insufficient in many countries of the region and can be upgraded with training assistance. Information on ongoing research and areas of possible inter-country cooperation in the research and technology sector needs to be more widely disseminated to generate more concerted action at policy level.

- Rural Development

13. Despite the overall economic growth achieved in the Near East during the last decades, rural poverty is still widespread. In many countries of the region, considerable differences in standards of living, infrastructures and social amenities still persist between urban and rural areas, leading to uncontrolled migration of impoverished rural populations to already strained cities. In some countries, changes in land tenure systems and in the distribution of agricultural land and other production assets towards more equity, have been slow. The enactment in many countries of rural development policies with the explicit aim of reducing inequalities and improving living conditions in rural areas should be pursued, and more determined action by governmental institutions is still required.

14. Many countries in the region are still confronted with shortages of extension staff. Difficulties are experienced in transferring basic knowledge and modern technologies at the farmer level, since this largely depends on the effectiveness of delivery systems, on the availability of qualified and dedicated extension personnel and on supportive infrastructures. A massive programme of education and training needs to be put in place leading to adequately trained manpower, capable of undertaking planning, programming and implementation of agricultural and rural development programmes and projects.
15. Building on the growing awareness among the international community of the key role of women in food production and food security, measures are needed to reflect more closely women's productive roles in national sectoral plans and specific food and agricultural development programmes. Member Nations should be encouraged to promulgate legislation which provides for equal rights between men and women, especially in the distribution of land and in the access to agricultural inputs and services, including credit. A key aspect is also to upgrade the technical competence of rural women. In this respect, training of female extension personnel needs to be enhanced at intermediate and university levels, to permit more satisfactory participation of rural women and families in food production and food security.
16. After the rapid urbanization of the last decades and the consequent changing consumption patterns in the Near East, agricultural marketing and food distribution systems are no longer able to cope with increasing demands for varied foods and overcome the excessive dependence on imports. National agricultural credit institutions are often unable to match farmers' requirements and need assistance in improving their loan administration and domestic resource mobilization activities. A major priority in the area of marketing is the increased efficiency of marketing agencies and marketing extension services, bearing in mind the needs of small farmers.

- Nutrition

17. Despite the general improvements in nutrition standards in the region, with severe malnutrition generally limited to drought-affected areas, the already-mentioned massive food imports and rapid changes in life-styles and food consumption habits have added new nutritional problems, in both poor and rich countries, which require corrective measures at national and regional levels. Thus, nutritionists need to address at the same time the nutritional deficiencies associated with poverty, as well as the nutritional problems characteristic of affluent societies. Nutrition education of the public through mass media is of considerable importance to address these complex nutritional problems.
18. Food distribution systems in the region are characterized by a proliferation of retail food outlets and petty traders, which increase the risk of food adulteration and microbial contamination. This risk is aggravated by prevailing climatic conditions and improper handling practices and conservation systems. The national institutions dealing with nutrition surveillance and the food quality control services, in most countries, face limitations in protecting the consumers and in providing the necessary support to food industries.

- Food and Agricultural Information and Analysis

19. The lack of comprehensive and timely data and the insufficient harmonization of concepts, definitions and classifications of food and agricultural statistics represent obstacles to the formulation of agricultural and rural development plans and to monitoring of progress. Improvements in the quality, coverage and timeliness of statistical data, as well as training of national personnel and the promotion of TCDC, remain, therefore, major objectives.

- Food and Agricultural Policy

20. The capacity to formulate, implement and monitor agricultural development plans, policies, programmes and projects is still uneven in the region, for lack of expert staff and inadequate means at their disposal. Many long-term issues need to be analysed for the benefit of policy-makers, such as (i) the creation of employment opportunities in rural areas, to reduce rural-urban migration trends; (ii) the measures necessary to maximize the net positive impact of labour mobility from non-oil to oil-exporting countries; (iii) the promotion of investment in infrastructures and processing of raw materials, etc. Regional economic cooperation can be further promoted through harmonization of agricultural policies and joint ventures for the development of agricultural projects. Substantial assistance is required by Member Governments for the analysis of issues, monitoring and evaluation of large-scale development projects, and training of specialists in those sectors for the creation of a core of professional expertise.

Medium-term Objectives

21. The medium-term objectives are to assist Member Nations in the region in:
- increasing domestic food production, both under irrigated and dry-land farming;
 - managing scarce natural resources, combatting desertification and deterioration of rangelands, ensuring crop and environmental protection and the conservation of genetic resources;
 - improving the socio-economic contribution of the rural poor through better access to production assets and inputs, including marketing and credit, effective participation of both men and women in agricultural and rural development programmes;
 - strengthening national capabilities in the planning, management and monitoring of agricultural development programmes and projects;
 - building up regional and national capabilities in science and technology through viable national and regional institutions for research development, environment and energy;
 - promoting TCDC by fostering the exchange of technical knowledge, experience and trained manpower, and ECDC through more effective economic and social cooperation and policy harmonization among the countries of the region.

Plan of Action

- Natural Resources

22. Priority will be given to the efficient and rational use of water resources, including re-use of marginal water and sewage effluent for agriculture, supplementary irrigation, and water harvesting. The control of waterlogging and salinity and the solution to drainage problems will remain prominent priorities. Specific actions will include advice to governments and technical backstopping of field projects. The dissemination of information and upgrading of national skills will take place through national and regional meetings, seminars, workshops, etc. The Eleventh Session of the FAO Regional Commission for Land and Water Use in the Near East will be convened in 1991. The Joint ESCWA/FAO Agriculture Division (JNEA) will provide assistance in planning and formulating national plans of action to combat desertification; in training on the economics of resource conservation; and in the design and execution of farm plans, taking into consideration different soil and environmental conditions as well as changing market situations.

- Crops

23. National programmes to overcome constraints in cereal production and to train specialists in major rainfed crops will be supported. Assistance will be provided in the exchange of improved plant material and the upgrading of cultural practices, particularly concerning food legumes and other important crops. Training, on-farm verification and demonstration trials, etc. will be carried out within the framework of national and regional crop improvement programmes. These should provide young scientists with the opportunity to learn more from experiences of other countries which have made advances in breeding and cultural practices.
24. Plant protection activities will be geared to upgrading capabilities at the national and regional levels to combat pre- and post-harvest pest problems, encouraging regional cooperation in the exchange of information, promoting plant quarantine, fostering the implementation of the International Code of Conduct for Distribution and Use of Pesticides, and developing and adapting integrated pest management approaches.
25. Activities related to food and agricultural industries will focus on assisting Member Nations in making more efficient and economical utilization of food processing and conservation infrastructures. Technical assistance will be provided in apiculture and sericulture, as well as in the application of biotechnology to food and agricultural processing and the utilization of agricultural residue. The identification of agro-industrial opportunities will remain an ongoing activity for import substitution, export development, and food packaging and handling. Efforts will continue toward establishing a Cooperative Regional Network of National Institutions for Agro-Industrial Development in the Near East Region.

- Livestock

26. The regional Middle and Near East Animal Production and Health Development Project (MINEADEP) will continue to be backstopped and follow up ensured on the proposed programme for the coordination of rinderpest control in Western Asia. Direct support will also continue to be provided to member countries in planning and programme formulation for the

control of infectious animal diseases. The Near East Regional Cooperative Research and Development Network on Small Ruminants will be supported. A technical consultation of this Cooperative Network will be convened in 1991 and a workshop on recent advances in small ruminants production technologies will be organized in 1990. Advice will be provided on livestock development strategies and on the use of quantitative methods in livestock development planning.

27. Advisory assistance will be provided to Member Governments in the implementation of range improvement demonstration programmes. Support to cultivated fodder will be continued. In the development of range management systems, subject matters of most interest are fodder shrubs and range rehabilitation. The importance of biological nitrogen fixation through legumes, be they in rotations as fodders or as fodder shrubs, will be stressed. Training will be provided to bring up to date the technical skills of range and fodder specialists. Cooperation with the International Centre for Agricultural Research in Dry Areas (ICARDA) will be intensified.

- Research and Technology Development

28. The strengthening of national agricultural research systems and research management capability will be a primary concern. Support and technical advice will continue to be given to the Association of Agricultural Research Institutions (AARINENA) in the region. The Fourth General Conference of this Association will be held in 1991. Cooperation with regional and international institutions such as ACSAD, AOAD, ICARDA, ISNAR, etc. will continue. Regional and national AGRIS and CARIS activities will be further promoted. Training of these centres' users will be organized and an evaluation of the member countries' information requirements for enhanced participation in AGRIS and CARIS will be made. The Third Technical Consultation of Arab AGRIS and CARIS centres will be organized in 1991.

- Rural Development

29. In the area of agricultural education and training, a programme will be launched in collaboration with UN agencies and other international organizations, to give more prominence to problems related to rural poverty in universities and schools. The modernization of teaching methods and the fostering of educational networks in the region will receive priority. Extension methods and materials will be continuously adapted to improve their outreach to rural women and small farmers in the region. The use of communication/audiovisual materials and methodologies will be further promoted through workshops and training of local staff and extension workers.
30. Under agrarian reform, the changes in agricultural production structures and the fragmentation of rural holdings will be analysed. Assistance will be provided to the Regional Centre for Agrarian Reform and Rural Development for the Near East (CARDNE), when it starts operating. An expert consultation on computer applications to cadasters and land registration is planned in 1991. Assistance will also be provided in the settlement and management of newly reclaimed irrigated land.

31. Under rural institution and employment, the problems linked to the migration of rural populations to urban centres and to other countries and to the return of migrants to their places of origin will be documented. Assistance will also be provided in relation to the problems of pastoralists and the modifications which are taking place in their production systems. An assessment of delivery systems of agricultural services to small farmers will be carried out and followed by the formulation of a regional programme, to be financed by extra-budgetary resources.
32. Member Governments and national institutions are likely to require extensive assistance in strengthening policies, strategies, programmes and projects aiming at the integration of rural women in the development process. In this respect, training courses will be organized on the participation of rural women and families in food production and food security. Support will also be given to increasing access of women to agricultural services.
33. In the areas of marketing and credit, TCDC activities will be carried out primarily through the recently established Agricultural Food Marketing Association for the Near East and North Africa (AFMANENA) and the Near East and North Africa Regional Agricultural Credit Association (NENARACA). The aims are to promote increased efficiency of marketing agencies and marketing extension, the mobilization of savings, the efficiency of rural credit institutions, and monitoring and evaluation. Attention will be paid to the role of cooperatives in marketing agricultural produce and farm inputs. JNEA will focus on: (i) promoting better performing distribution systems of food and agricultural commodities in ESCWA countries; (ii) evaluation of the performance of rural credit institutions, and (iii) extension and education for agricultural and rural development.

- Nutrition

34. National food and nutrition institutions in the region will require assistance for nutrition surveillance and in the formulation, execution and evaluation of specific nutrition interventions. TCDC will be pursued through regional and inter-country training activities, seminars and technical consultations. Assistance will also be provided to member countries to establish effective national food control services. Important aspects are the development of export quality control systems in countries with food export potentials, and the nutritional quality and preservation techniques of traditional foods.

- Food and Agricultural Information and Analysis

35. Routine activities related to the collection, review and analysis of food and agricultural information at country and regional levels, will continue. Statistical programmes of interest to the region will include: food security, trade matrices, livestock statistics, etc. Transfer of technology and expertise among Near East countries will be intensified. Under this programme, JNEA contributes to SOFA and publishes the annual bulletin "Agriculture and Development".

- Food and Agricultural Policy

36. High priority will be placed on: (i) long-term agricultural development strategies in selected countries of the Near East; (ii) study of selected issues of specific interest for sharpened agricultural policy analysis; and (iii) study of macro-economic linkages relevant to agricultural development. The need for integrating environmental considerations and sustainability criteria in agricultural planning will be highlighted. Policy advice, including WCARRD strategy reviews, will be provided to member countries, and missions will be launched for review, analysis and monitoring of developments in agriculture. Collaborative links will be maintained with training institutes in the region aiming at enlisting their collaboration in a regional training programme, for the implementation of which extra-budgetary resources will be sought. Direct assistance will be provided in answer to specific requests related to the transfer of computer training packages (DASI and CAPPA) for sector analysis and project planning. The Fourth Session of the Near East Regional Commission for Agriculture and the Near East Regional Economic and Social Policy Commission will be held in 1991. JNEA will provide direct planning assistance and training to ESCWA countries and will promote coordination among countries.

II. FISHERIES

The Regional Setting

37. Both marine and inland fisheries in the Near East could contribute more significantly to food supplies. However, several constraints hinder the rational planning and development of the fisheries sector in most countries of the region. Some major issues to be dealt with are the coordination of research activities, the exchange of information on fisheries, institution-building, and training of local staff. The lack of reliable statistical data collection systems and standardization, and insufficient knowledge of the magnitude, geographical distribution and seasonal variation of most fish stocks continue to hamper, in most Arab countries, the preparation of effective fisheries management policies and programmes. Greater cooperation is needed among neighbouring countries for the identification, formulation and implementation of sub-regional and national projects. Furthermore, training of qualified technical personnel is required in all disciplines of fisheries research, development and management.

Medium-term Objectives

38. The objectives are to assist Member Nations of the region in:
- improving fisheries statistics and knowledge on the rational utilization of fish resources;
 - strengthening sub-regional and regional cooperation, especially through exchange of information, of experience and through common studies of general interest;
 - stimulating interest for regional activities and initiatives;
 - providing assistance in training, institution-building, aquaculture planning, inland fisheries development, marketing, and investment studies.

Plan of Action

39. Activities of fisheries information will aim at strengthening exchanges of data on the fisheries industry among the countries of the region. Guidelines and common definitions, classifications and methods of data collection will be disseminated for the improvement in quality and scope of fishery statistical information at national and regional levels. The IOFC Committee for the Development and Management of the Fishery Resources in the Gulfs will continue to play a major role in promoting, assisting and coordinating fishery research, development and management. Requests for assistance from national research institutes dealing with fish resources evaluation and preservation will be met. The setting up of networking schemes will be encouraged to implement sub-regional cooperative research programmes. National fisheries administrations will be assisted in formulating projects and in implementation and evaluation. Programmes related to inland fisheries and the identification, formulation, execution and evaluation of aquaculture pilot projects will be supported. Technical assistance will also be provided to the small-scale fisheries sector.
40. Regional market information services will be supported by the supply of information on prices and market trends of the most important fishery commodities. This will be done through the existing network of regional fish marketing information and technical advisory services in Arab countries (INFOSAMAK), as well as the global system of fishery commodities information (GLOBEFISH). The Eighth Session of the IOFC Committee for the Development and Management of the Fishery Resources in the Gulfs and other regional fishery bodies and their subsidiary working groups will be serviced. A workshop on fisheries planning for the Red Sea and Gulfs countries is planned. The establishment of an FAO-sponsored sub-regional arrangement for the Red Sea and Gulf of Aden will be pursued.

III. FORESTRY

The Regional Setting

41. Sixty-eight percent of the land mass in the region is covered by deserts and arid areas. Ten percent only is under forest and open woodland. In view of such harsh ecological factors, the role of forestry in the region assumes significance. The destruction of woody vegetation, overgrazing, and improper farming methods have resulted in many areas in desert encroachment, dunes, depressed water tables, and accelerated soil erosion. At the same time, demands are placed on forests for meeting fuelwood needs of the rural population, as well as satisfying requirements of timber for construction, agricultural implements, panel products and paper. Therefore, demand for forest products is increasing rapidly and, if domestic production remains at the present level, the region's imports will continue to grow, thus placing a heavy burden on balances of payments. In this context, FAO is called upon to further increase awareness of the need to develop forestry and forest industries in the region. However, problems are experienced in this respect due to inadequate administrative structures, insufficient managerial capabilities of forestry agencies, the low level of investment in forestry activities and the lack of trained manpower.

Medium-term Objectives

42. The objectives are to assist Member Nations of the region in:
- forestry research, forest protection and small-scale forestry, and forest industry operations;
 - enhancing the role of forestry and woody vegetation in contributing to food security and desertification control;
 - developing institutional capabilities in the forestry sector;
 - improving the level of technology and the quality of forest personnel;
 - promoting forest-based employment and income in the rural areas.

Plan of Action

43. The Tropical Forestry Action Plan (TFAP), which constitutes a unique framework for coordination of national and international action for forest development and conservation, will constitute the focus for regional and national programmes in afforestation. Training activities and the updating of forestry curricula for professional, technical and vocational training institutions will be carried out, together with improving the quality and quantity of training and reference materials. Guidance will be provided to national forestry institutions in determining the goals and targets for the forestry sector. Existing TCDC networks under Silva Mediterranea will be further assisted and the initiation, with extra-budgetary funds, will be sought of a network for the development and exchange of technology on dune stabilization, shelterbelt and afforestation in dry zones. Collaboration will be pursued with regional and sub-regional bodies, such as the Arab Centre for the Studies of Arid Zones and Dry Lands (ACSAD), and the Transnational Green Belt Project for North Africa. Support will be given to regional initiatives such as the Maghreb Forestry Week. A seminar on the management of natural vegetation will be organized and a monograph prepared on the silviculture of food and fruit bearing forest species in the Near East Region. Since non-wood forest products play an important role for rural people, a cooperative programme on this subject will be formulated for which necessary funding will be explored. Attention to wildlife in the region will take the form of a study on the present situation of wildlife and protected areas and the preparation of a set of proposals for follow-up action. The Eleventh Session of the Near East Forestry Commission will be held in 1990.

REGIONAL ESTIMATES BY PROGRAMME (\$000, All Funds) - NEAR EAST

Programme	Regular Programme				Extra-Budgetary	Total
	Headquarters	Regional Offices	Country Offices	Total		
1.1.1.7 Regional Conference	200	0	0	200	0	200
2 Technical and Economic Programmes	(18 117)	(8 900)	(0)	(27 017)	(105 957)	(132 974)
2.1 Agriculture	(14 558)	(7 953)	(0)	(22 511)	(77 068)	(99 579)
2.1.1 Natural Resources	2 324	628	0	2 952	20 494	23 446
2.1.2 Crops	2 844	912	0	3 756	25 774	29 530
2.1.3 Livestock	1 197	601	0	1 798	13 736	15 534
2.1.4 Research & Technology Development	1 211	310	0	1 521	2 397	3 918
2.1.5 Rural Development	2 990	1 698	0	4 688	7 356	12 044
2.1.6 Nutrition	1 037	394	0	1 431	812	2 243
2.1.7 Food and Agricultural Information and Analysis	1 054	485	0	1 539	194	1 733
2.1.8 Food and Agricultural Policy	1 792	1 205	0	2 997	6 245	9 242
2.1.9 Programme Management	109	1 720	0	1 829	60	1 889
2.2 Fisheries	2 485	476	0	2 961	11 990	14 951
2.3 Forestry	1 074	471	0	1 545	16 899	18 444
3 Development Support Programmes	(3 575)	(0)	(8 282)	(11 857)	(4 209)	(16 066)
3.1 Field Programme Liaison and Development	962	0	0	962	1 438	2 400
3.2 Investment	2 598	0	0	2 598	2 288	4 886
3.3.1 FFH/AD	15	0	0	15	0	15
3.4 FAO Representatives	0	0	8 282	8 282	483	8 765
4 Technical Cooperation Programme	10 843	0	0	10 843	0	10 843
5 Support Services	(0)	(735)	(0)	(735)	(94)	(829)
5.1.1 Public Information	0	208	0	208	0	208
5.1.3 Publications	0	0	0	0	94	94
5.2.1 Administrative Services	0	527	0	527	0	527
TOTAL	32 735	9 635	8 282	50 652	110 260	160 912

ANNEX II

BUDGET
BY
ORGANIZATIONAL UNIT

SUMMARY OF 1988-89 AND 1990-91 BUDGETS BY UNIT (US\$ 000)

Unit	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget
ODG	15 961	144	3 488	19 593
AG	65 858	1 698	10 949	78 505
ES	78 817	1 001	14 272	94 090
FI	28 383	400	5 266	34 049
FO	18 157	450	3 418	22 025
DD	29 028	(428)	4 615	33 215
RO/JD/LO	47 309	0	5 796	53 105
FAOR	47 651	428	7 133	55 212
AF	58 144	0	11 124	69 268
TCP	63 148	1 750	2 869	67 767
GI	39 304	57	7 670	47 031
CONTINGENCIES	600	0	0	600
TOTAL	492 360	5 500	76 600	574 460

* Increase (Decrease)

1988-89 and 1990-91 Departmental Summary by Budget Component (\$US 000's)

Unit	Salaries & Common Staff Costs	Consultants	Contractual Services	Official Travel	Meetings	Operating Expenses	Publications and Documents	Computer Services	Other	TOTAL
OOG	1988-89 12 458	382	209	499	0	371	690	274	1 078	15 961
	1990-91 15 722	413	308	499	0	415	763	245	1 228	19 593
AG	1988-89 37 448	6 796	8 101	5 299	747	1 567	4 126	504	1 270	65 858
	1990-91 46 968	6 503	8 946	5 737	1 112	1 953	5 339	547	1 400	78 505
ES	1988-89 48 598	5 111	7 355	4 153	1 477	1 652	7 983	2 254	234	78 817
	1990-91 60 826	5 703	7 865	4 051	1 365	1 961	9 582	2 498	239	94 090
FI	1988-89 17 298	1 666	1 975	2 368	818	416	3 494	348	0	28 383
	1990-91 21 803	1 742	2 483	2 358	779	500	3 961	423	0	34 049
FO	1988-89 10 272	1 368	1 855	1 038	724	455	2 011	434	0	18 157
	1990-91 13 727	1 218	1 969	1 082	578	524	2 561	366	0	22 025
DO	1988-89 18 520	4 465	610	2 698	63	1 193	620	659	200	29 028
	1990-91 22 660	4 391	535	2 713	58	1 317	686	633	200	33 215
RO/JD/LO	1988-89 31 610	3 594	2 079	4 307	844	4 072	705	98	0	47 309
	1990-91 36 475	3 976	2 314	4 262	753	4 425	782	118	0	53 105
FAOR	1988-89 34 231	455	473	2 276	0	10 216	0	0	0	47 651
	1990-91 42 849	500	535	2 500	0	8 828	0	0	0	55 212
GI	1988-89 20 335	167	3 164	1 350	42	1 514	12 213	509	0	39 304
	1990-91 25 063	187	3 373	1 476	30	2 014	14 430	458	0	47 031
AF	1988-89 35 342	305	1 483	214	0	15 278	1 098	2 615	1 809	58 144
	1990-91 43 574	347	1 916	201	0	16 871	1 350	3 099	1 910	69 268
TCP	1988-89 0	0	0	0	0	0	0	0	63 148	63 148
	1990-91 0	0	0	0	0	0	0	0	67 767	67 767
CONT	1988-89 0	0	0	0	0	0	0	0	600	600
	1990-91 0	0	0	0	0	0	0	0	600	600
Grand	1988-89 266 112	24 309	27 304	24 212	4 715	36 734	32 940	7 695	68 339	492 360
Total	1990-91 329 687	24 980	30 244	24 879	4 675	38 808	39 456	8 387	73 344	574 460

OFFICE OF DIRECTOR-GENERAL

Unit	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget
DG	3 782	0	815	4 597
AUD	1 914	144	389	2 447
IAA	2 635	(162)	529	3 002
LEG	3 687	0	837	4 524
PBE	3 943	162	918	5 023
TOTAL	15 961	144	3 488	19 593

* Increase (Decrease)

Changes in Posts (RP)	
New Posts	Abolished Posts
AUD G-5 Clerk G-3 Bilingual Typist	Nil
IAA Nil	P-5 Chief, Inter Agency Matters Unit G-6 Research Assistant G-3 Records and Documentation Clerk
LEG P-5 Senior Legal Officer	G-5 Clerk G-3 Bilingual Typist
PBE P-5 Senior Evaluation Officer	Nil

1988-89 and 1990-91 Divisional Summary by Budget Component (\$US 000's)

Unit	Salaries & Common Staff Costs		Consultants	Contractual Services	Official Travel	Meetings	Operating Expenses	Publications and Documents	Computer Services	Other	TOTAL
	1988-89	1990-91									
DG	3 058	3 828	223	0	206	0	87	208	0	0	3 782
			223	21	206	0	92	227	0	0	4 597
AUD	1 388	1 916	0	0	48	0	37	2	31	408	1 914
			0	21	48	0	39	2	13	408	2 447
LEG	3 004	3 772	99	71	40	0	77	396	0	0	3 687
			90	107	40	0	82	433	0	0	4 524
IAA	1 740	1 874	0	0	103	0	95	25	2	670	2 635
			40	11	103	0	122	30	2	820	3 002
PBE	3 268	4 332	60	138	102	0	75	59	241	0	3 943
			60	148	102	0	80	71	230	0	5 023
TOTAL	12 458	15 722	382	209	499	0	371	690	274	1 078	15 961
			413	308	499	0	415	763	245	1 228	19 593

IMMEDIATE OFFICE OF DIRECTOR-GENERAL

Director-General

- 1 Deputy Director-General
- 1 D-2 Directeur de Cabinet
- 1 D-2 Special Assistant to Director-General
- 1 D-1 Attaché de Cabinet
- 1 P-5 Attaché de Cabinet
- 1 P-3 Attaché de Cabinet
- 1 P-3 Personal Assistant to Director-General
- 1 P-2 Personal Assistant to Deputy Director-General

OFFICE OF PROGRAMME, BUDGET AND EVALUATION

OFFICE OF DIRECTOR

- 1 D-2 Director

PROGRAMME AND BUDGET SERVICE

- 1 D-1 Chief
- 3 P-5 Senior Programme and Budget Officers
- 1 P-5 Senior Officer (Systems and Data Development)
- 2 P-4 Programme and Budget Officers (1 TF/S)
- 3 P-3 Programme and Budget Officers (1 UNDP/S; 1 TF/S)
- 1 P-3 Analyst/Programmer (UNDP/S)
- 1 P-2 Programme and Budget Officer

EVALUATION SERVICE

- 1 D-1 Chief
- 4 P-5 Senior Evaluation Officers (1 TF/S)
- 4 P-4 Evaluation Officers (1 UNDP/S; 1 TF/S)
- 1 P-3 Evaluation Officer (UNDP/S)

- 1 P-4 Executive Officer
- 1 P-2 Administrative Officer

INTERNAL AUDIT, INSPECTION AND MANAGEMENT CONTROL

- 1 D-2 Director
- 3 P-5 Senior Auditors (1 UNDP/S; 1 TF/S)
- 5 P-4 Internal Auditors (1 WFP/S)
- 3 P-3 Internal Auditors (1 UNDP/S; 1 TF/S)
- 1 P-2 Internal Auditor

OFFICE FOR INTER-AGENCY AFFAIRS

- 1 D-2 Director
- 1 P-5 Chief, External Relations Unit
- 2 P-4 Liaison Officers
- 1 P-3 Liaison Officer

OFFICE FOR SPECIAL RELIEF OPERATIONS

- 1 D-1 Chief
- 1 P-5 Senior Operations Officer
- 1 P-4 Operations Officer
- 1 P-4 Project Analyst (Food Emergencies)
- 1 P-4 Executive Officer
- 1 P-3 Reports Officer

LEGAL OFFICE

OFFICE OF THE LEGAL COUNSEL

- 1 D-2 Legal Counsel
- 1 D-1 Principal Legal Officer
- 1 P-5 Senior Legal Officer
- 2 P-4 Legal Officers
- 1 P-3 Legal Officer (Research and Documentation)

Legislation Branch

- 1 P-5 Chief, Legislation Branch
- 1 P-5 Chief, Forestry, Wildlife and Fisheries Legislation Section
- 1 P-4 Chief, Agrarian and Water Legislation Section
- 1 P-4 Chief, Animal, Plant and Food Legislation Section
- 3 P-4 Legal Officers
- 1 P-3 Legal Officer
- 1 P-3 Translator/Reviser (Legal)
- 1 P-2 Legal Officer (Animal, Plant and Food Legislation)

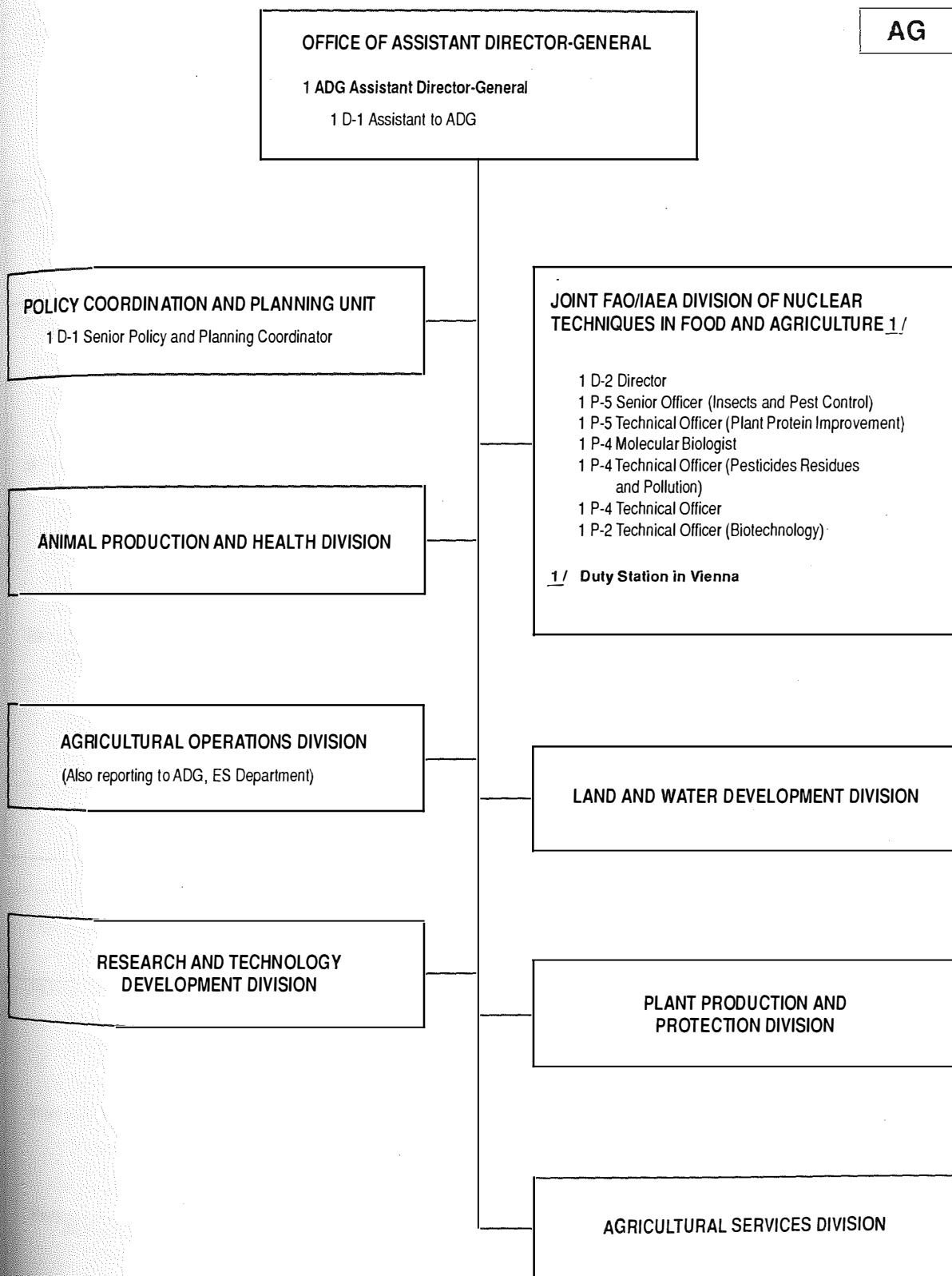
Unit	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget
AGD	1 982	0	332	2 314
AGA	12 451	0	2 115	14 566
AGE	2 996	60	379	3 435
AGL	12 003	548	2 096	14 647
AGO	398	0	36	434
AGP	17 422	265	2 971	20 658
AGR	7 182	789	1 205	9 176
AGS	11 424	36	1 815	13 275
TOTAL	65 858	1 698	10 949	78 505

* Increase (Decrease)

Changes in Posts (RP)		Abolished Posts
New Posts		
AGA	Nil	P-5 Senior Officer (Dairy Development Programme) 3 x G-3 Stenographers
AGL	P-5 Senior Officer (Integrated Plant Nutrition Systems) P-5 Senior Officer (Water Development) P-5 Senior Officer (Water Development Planning)	P-5 Senior Officer (International Fertilizer Supply Scheme) P-2 Meetings Officer/Editor
AGP	P-5 Senior Officer (Plant Biotechnology) P-5 Coordinator (Cooperative Action for Plant Health) P-4 Agricultural Officer (Locust Forecasting)	P-4 Agricultural Officer (Agrometeorology) (transfer to AGR) G-4 Clerk-Stenographer (transfer to AGR) G-3 Statistical Clerk (transfer to AGR) 2 x G-3 Clerk-Typists G-3 Bilingual Typist
AGR	P-5 Senior Remote Sensing Officer (Environmental Monitoring) P-5 Senior Officer (Agrometeorology) P-4 Agrometeorology Officer (Transfer from AGP) G-4 Clerk-Stenographer (transfer from AGP) G-3 Statistical Clerk (transfer from AGP)	G-3 Clerk-Typist
AGS	P-4 Agricultural Industries Officer G-4 Reference Clerk	G-4 Clerk-Stenographer

1988-89 and 1990-91 Divisional Summary by Budget Component (\$US 000's)

Unit	Salaries & Common Staff Costs		Consultants	Contractual Services	Official Travel	Meetings	Operating Expenses	Publications and Documents	Computer Services	Other	TOTAL
	Staff	Costs									
AGD 1988-89	1 225		241	247	85	54	24	70	36	0	1 982
1990-91	1 492		235	281	85	60	27	91	43	0	2 314
AGA 1988-89	7 344		913	1 512	1 038	126	285	1 154	79	0	12 451
1990-91	8 725		912	1 532	1 101	232	302	1 658	104	0	14 566
AGE 1988-89	1 045		171	1 287	69	291	3	130	0	0	2 996
1990-91	1 294		157	1 475	76	279	3	151	0	0	3 435
AGL 1988-89	7 053		1 500	1 310	943	167	254	766	10	0	12 003
1990-91	9 150		1 622	1 466	945	193	328	925	18	0	14 647
AGO 1988-89	0		0	0	0	0	0	28	0	370	398
1990-91	0		0	0	0	0	0	34	0	400	434
AGP 1988-89	9 992		1 873	1 834	1 405	64	617	1 320	317	0	17 422
1990-91	12 614		1 573	1 980	1 535	308	796	1 527	325	0	20 658
AGR 1988-89	4 129		521	746	566	8	172	116	24	900	7 182
1990-91	5 667		522	913	715	2	177	152	28	1 000	9 176
AGS 1988-89	6 660		1 577	1 165	1 193	37	212	542	38	0	11 424
1990-91	8 026		1 482	1 299	1 280	38	320	801	29	0	13 275
AG DEPT 1988-89	37 448		6 796	8 101	5 299	747	1 567	4 126	504	1 270	65 858
1990-91	46 968		6 503	8 946	5 737	1 112	1 953	5 339	547	1 400	78 505



AGA

OFFICE OF DIRECTOR

1 D-2 Director
1 P-5 Senior Officer (Programme and Planning)
1 P-4 Livestock Development Liaison Officer (WFP/S)

ANIMAL HEALTH SERVICE

1 D-1 Chief
1 P-5 Animal Health Officer (Secretary, European
Commission Control of FMD) (TF/P)

Veterinary Services Group

1 P-5 Senior Officer (Animal Health)
1 P-4 Animal Health Officer (Veterinary Intelligence)

Infectious and Parasitic Diseases Group

1 P-5 Senior Officer (Animal Virology)
1 P-5 Animal Health Officer (Vaccine Production)
1 P-4 Animal Health Officer (Bacteriology)
1 P-4 Animal Health Officer (Virology)
1 P-4 Animal Health Officer (Helminthology)
1 P-4 Animal Health Officer (Vaccine Production)

Trypanosomiasis/Tsetse Control Group

1 P-5 Senior Officer (Trypanosomiasis)
1 P-5 Senior Officer (Tsetse-Controlled Area
Development)
1 P-4 Animal Health Officer (Tsetse Control)
1 P-4 Animal Health Officer (Insect Control Training)

ADMINISTRATIVE UNIT

1 P-3 Executive Officer

ANIMAL PRODUCTION SERVICE

1 D-1 Chief

Animal Genetic Resources Group

1 P-5 Senior Officer (Animal Breeding and Genetic
Resources)
1 P-4 Animal Production Officer (Artificial Insemination
Breed Development)

Feed Resources Group

1 P-5 Senior Officer (Feed Resources)
1 P-4 Animal Production Officers (Feed Resources)

Livestock Production Systems Group

1 P-5 Senior Officer (Livestock Production System)
1 P-4 Animal Production Officer (Buffalo, Cattle and
Draught Power)
1 P-4 Animal Production Officer (Monogastrics)
1 P-4 Animal Production Officer (Poultry)

REGIONAL OFFICERS ^{1/}

AFRICA - Accra

1 P-5 Animal Production and Health Officer
1 P-4 Animal Health Officer (Trypanosomiasis)

ASIA AND THE PACIFIC - Bangkok

1 P-5 Animal Production and Health Officer
1 P-4 Animal Production Officer (Dairy Development)
1 P-4 Animal Health Officer

LATIN AMERICA AND THE CARIBBEAN - Santiago

1 P-5 Animal Production and Health Officer
1 P-4 Animal Production Officer

NEAR EAST - Rome

1 P-5 Animal Production and Health Officer

^{1/} Technical backstopping is provided for these posts

MEAT AND DAIRY SERVICE

1 D-1 Chief

Dairy Development Group

1 P-5 Senior Officer (Dairy Development)
1 P-4 Dairy Officer (Technology)

Meat Development Group

1 P-5 Senior Officer (Meat Technology)
1 P-4 Meat Officer (Engineering and Management)

Livestock Education Group

1 P-5 Senior Officer (Education and Training)
1 P-4 Animal Production Officer (Education)
1 P-4 Animal Health and Production Officer (Education)

OFFICE OF DIRECTOR

1 D-2 Director
1 P-5 Senior Officer (Programme and Planning)

AGL

**WATER RESOURCES, DEVELOPMENT
AND MANAGEMENT SERVICE**

1 D-1 Chief
1 P-5 Senior Officer (Water Development)

Water Resources Group

1 P-5 Senior Officer (Water Resources Planning)
1 P-4 Technical Officer (Water Resources Management)
1 P-4 Technical Officer (Hydraulic Engineering
Data Processing)
1 P-3 Technical Officer (Water Resources)

Water Development Group

1 P-5 Senior Officer (Water Development /Planning)
1 P-5 Senior Officer (Water Resources Development)
1 P-4 Technical Officer (Irrigation Engineering)
1 P-4 Technical Officer (Water Development) (WFP/S)
1 P-4 Technical Officer (Water Quality)
1 P-3 Technical Officer (Water Development)

Water Management Group

1 P-5 Senior Officer (Irrigation and Drainage
Management)
1 P-5 Senior Officer (Water Management)
1 P-4 Technical Officer (Water Management)
1 P-3 Technical Officer (Water Management)

ADMINISTRATIVE UNIT

1 P-3 Executive Officer

**SOIL RESOURCES MANAGEMENT
AND CONSERVATION SERVICE**

1 D-1 Chief
1 P-4 Technical Officer (Land and Environment
Information Systems)

Soil Resources Group

1 P-5 Senior Officer (Land Resources)
1 P-5 Senior Officer (Soil Resources)
1 P-4 Technical Officer (Land Classification)
1 P-3 Technical Officer (Soil Resources)
1 P-2 Cartographer

Soil Management

1 P-5 Senior Officer (Soil Management)
1 P-4 Technical Officer (Soil Management)
1 P-4 Technical Officer (Soil Reclamation and
Development)

Soil Conservation Group

1 P-5 Senior Officer (Soil Conservation)
1 P-4 Technical Officer (Soil & Water Conservation)
(WFP/S)
1 P-4 Technical Officer (Soil Conservation)

FERTILIZER AND PLANT NUTRITION SERVICE

1 D-1 Chief

Fertilizer Programme

1 P-5 Manager Fertilizer Programme (TF/S)
1 P-4 Technical Officer (Fertilizer Use and
Plant Nutrition)
1 P-4 Technical Officer (Fertilizer Use) (TF/S)

Integrated Plant Nutrition Systems Group

1 P-5 Senior Officer (Integrated Plant Nutrition Systems)
1 P-4 Technical Officer (Plant Nutrition/Training)
1 P-3 Technical Officer (Fertilizer/Data Processing)

Fertilizer Economics Group

1 P-5 Senior Officer
1 P-4 Agricultural Economist (Agricultural Inputs)
(UNDP/S)
1 P-3 Agricultural Economist (Fertilizer Economics)

REGIONAL OFFICERS 1/

AFRICA - Accra

1 P-5 Soil Resources Officer
1 P-4 Land and Water Development Officer

ASIA AND THE PACIFIC - Bangkok

1 P-5 Soil Management and Fertilizer Use Officer
1 P-4 Water Development and Management Officer

LATIN AMERICA AND THE CARIBBEAN - Santiago

1 P-5 Land and Water Development Officer

NEAR EAST - Rome

1 P-5 Land and Water Development Officer

1/ Technical backstopping is provided for these posts

AGO

OFFICE OF DIRECTOR

- 1 D-2 Director 1/
- 1 D-1 Assistant Director
- 1 D-1 Senior Operations Liaison Officer

1/ Reports to ADG, AG Department and to ADG, ES Department

OPERATIONS INFORMATION AND ANALYSIS UNIT

- 1 P-5 Chief
- 1 P-5 Programme Analyst (Special Reports)
- 1 P-3 Programme Information Officer
- 1 P-3 Systems Analyst/Programmer

REGIONAL OPERATIONS SERVICE WEST AFRICA

- 1 D-1 Chief
- 2 P-5 Senior Country Project Officers
- 1 P-5 Senior Country Project Officer (Regional Projects)
- 5 P-4 Country Project Officers
- 1 P-3 Country Project Officer

REGIONAL OPERATIONS SERVICE EAST AFRICA

- 1 D-1 Chief
- 2 P-5 Senior Country Project Officers
- 6 P-4 Country Project Officers

REGIONAL OPERATIONS SERVICE ASIA AND THE PACIFIC

- 1 D-1 Chief
- 3 P-5 Senior Country Project Officers
- 7 P-4 Country Projects Officers
- 1 P-3 Country Project Officer

REGIONAL OPERATIONS SERVICE NEAR EAST, NORTH AFRICA AND EUROPE

- 1 D-1 Chief
- 3 P-5 Senior Project Officers
- 4 P-4 Country Project Officers
- 1 P-3 Country Project Officer

REGIONAL OPERATIONS SERVICE LATIN AMERICA AND THE CARIBBEAN

- 1 D-1 Chief
- 2 P-5 Senior Country Project Officers
- 3 P-4 Country Project Officers

REPORTS UNIT

- 1 P-5 Chief (TF/P)
- 4 P-4 Reports Officers (TF/P)
- 1 P-4 Technical Editor (TF/P)
- 1 P-3 Technical Editor (TF/P)
- 1 P-3 Technical Writer (TF/P)
- 1 P-2 Administrative Officer (TF/P)
- 3 P-1/P-2 Editors (TF/P)

MANAGEMENT SUPPORT SERVICE

1 D-1 Chief

Personnel Group

- 1 P-5 Senior Personnel Officer 1/
- 1 P-4 Personnel Officer (Servicing)
- 1 P-4 Personnel Officer (Manpower)
- 4 P-3 Personnel Officers (Servicing)
- 1 P-3 Personnel Officer
- 1 P-2 Personnel Officer (Manpower)
- 1 P-2 Personnel Officer

Budget and Finance Group

- 1 P-5 Senior Budget and Finance Officer 1/
- 1 P-4 Budget and Finance Officer
- 1 P-4 Finance Officer
- 3 P-3 Budget and Finance Officers
- 1 P-2 Finance Officer

Equipment and Contracts Group

- 1 P-4 Equipment and Contracts Officer
- 1 P-2 Equipment Officer

Fellowships Group

- 1 P-5 Senior Fellowships Officer
- 1 P-4 Fellowships Officer
- 4 P-2 Fellowships Officers
- 1 P-3 Administrative Officer (Fellowships)
- 1 P-3 Fellowships Officer (Study Tours)

Note: All posts, except those indicated as TF/P, are UNDP and TF Support Costs

1/ Outposted from AFP and AFF (for funding see their tables)

OFFICE OF DIRECTOR

1 D-2 Director
1 P-5 Senior Officer, Programme and Planning
1 P-4 Plant Production Officer (WFP/S)

AGP

ADMINISTRATIVE UNIT

1 P-3 Executive Officer

CROP AND GRASSLAND SERVICE

1 D-1 Chief
1 P-5 Senior Officer (Plant Biotechnology)

Field Food Crops Group

1 P-5 Senior Officer (Field Food Crops)
1 P-5 Agricultural Officer (Rice Agronomy)
1 P-5 Agricultural Officer (Cereals)
1 P-4 Agricultural Officer (Rice Agronomy)
1 P-3 Agriculture Officer (Horticulture)

Horticultural Crops Group

1 P-5 Senior Officer (Horticultural Crops)
1 P-5 Agricultural Officer (Crop Production
Agronomist/Vegetables)
1 P-4 Agricultural Officer (Roots and Tubers)
1 P-4 Agricultural Officer (Subsistence Horticultural Crops)

Grassland and Pasture Crops Group

1 P-5 Senior Officer (Grassland and Pasture Crops)
1 P-5 Agricultural Officer (Tropical Pasture)
1 P-4 Agricultural Officer (Pasture Improvement)

Industrial Crops Group

1 P-5 Senior Officer (Industrial Crops)
1 P-4 Agricultural Officer (Industrial Crops)

PLANT PROTECTION SERVICE

1 D-1 Chief
1 P-5 Coordinator (Cooperative Action for Plant Health)
1 P-4 Agricultural Officer (Rodent Control and Storage Pest)
1 P-4 Agricultural Officer (Reduction of Post-Harvest Losses)

Pesticides and Weed Management Group

1 P-5 Senior Officer (Pesticides and Weed Management
Group)
1 P-4 Agricultural Officer (Pesticides Residues and Environ-
ment)
1 P-4 Agricultural Officer (Weed Management)

Plant Disease and Quarantine Group

1 P-5 Senior Officer (Plant Pathology)
1 P-4 Agricultural Officer (Epidemiology/Plant Disease
Control)
1 P-4 Agricultural Officer (Plant Quarantine)
1 P-3 Agricultural Officer (Plant Protection Information)

Agricultural Entomology Group

1 P-5 Senior Officer (Entomology)
1 P-4 Agricultural Officer (Integrated Pest Control)

Locust, Other Migratory Pests and Emergency Operations Group

1 P-5 Senior Officer (Migratory Pest Control)
1 P-5 Agricultural Officer (Desert Locust) (DS: Jeddah)
1 P-5 Senior Officer (Migratory Pests)
1 P-4 Agricultural Officer (Locust Forecasting)
1 P-4 Agricultural Officer (Migratory Pests)
1 P-3 Agricultural Officer (Operations)

REGIONAL OFFICERS ^{1/}

AFRICA - Accra

1 P-5 Plant Production and Protection Officer
1 P-5 Senior Crop Protection Officer
1 P-4 Desert Locust and Migratory Pests Officer (DS: Algiers)

ASIA AND THE PACIFIC - Bangkok

1 P-5 Plant Production and Protection Officer
1 P-4 Plant Protection Officer
1 P-4 Plant Production Officer (Commercial Crops)

LATIN AMERICA AND THE CARIBBEAN - Santiago

1 P-4 Plant Production and Protection Officer
1 P-4 Plant Protection Officer
1 P-4 Plant Protection Officer (DS: Port-of-Spain)

NEAR EAST - Rome

1 P-5 Plant Production and Protection Officer
1 P-4 Plant Protection Officer
1 P-4 Range Management and Fodder Production Officer

^{1/} Technical backstopping is provided for these posts

SEED AND PLANT GENETIC RESOURCES SERVICE

1 D-1 Chief

Seed Group

1 P-5 Senior Officer (Seed Improvement)
1 P-5 Senior Officer (Seed Production)
1 P-4 Agricultural Officer (Seed Production)
1 P-4 Agricultural Officer (Seed Certification)
1 P-3 Agricultural Officer (Seed Exchange)

Plant Genetic Resources Group

1 P-5 Senior Officer (Plant Genetic Resources)
1 P-5 Secretary Commission on Plant Genetic Resources
1 P-4 Agricultural Officer (Field Programme Support/Plant
Genetic Resources)
1 P-4 Training Officer (Plant Genetic Resources and Seeds)
1 P-3 Information Officer (Plant Genetic Resources
and Seeds)

AGR

OFFICE OF DIRECTOR

1 D-2 Director
1 P-5 Senior Officer (Programme and Planning)
1 P-3 Executive Officer

RESEARCH DEVELOPMENT CENTRE

1 D-1 Chief
1 P-5 Senior Officer (National Agricultural Research)
1 P-5 Senior officer (International Agricultural Research)
1 P-4 Agricultural Research Officer
1 P-4 Agricultural Research Officer (Science and Technology)

**SECRETARIAT OF THE TECHNICAL ADVISORY
COMMITTEE TO THE CGIAR**

1 D-1 Executive Secretary (TF/P)
1 P-5 Senior Officer (Agricultural Research) (TF/P)
1 P-5 Senior Officer (International Agricultural Research)
(TF/P)
1 P-5 Senior Agricultural Research Officer (TF/P)

**ENVIRONMENT AND ENERGY PROGRAMMES
COORDINATING CENTRE**

1 D-1 Chief
1 P-5 Senior Officer (Energy)
1 P-4 Environment Programme Officer
1 P-4 Environment Officer

REMOTE SENSING CENTRE

1 D-1 Chief
1 P-5 Senior Officer (Remote Sensing)
1 P-5 Senior Remote Sensing Officer (Environmental
Monitoring)
1 P-5 Senior Officer (Agrometeorology)
1 P-4 Remote Sensing Officer (Forestry)
1 P-4 Remote Sensing Officer (Agriculture) (TF/S)
1 P-4 Remote Sensing Officer (Education and
Training) (TF/P)
1 P-4 Remote Sensing Officer (Monitoring) (TF/P)
1 P-4 Agrometeorology Officer

REGIONAL OFFICERS 1/

AFRICA - Accra

1 P-4 Regional Officer (Science and Technology)

EUROPE - Rome

1 P-5 Regional Officer (Energy)

LATIN AMERICA AND THE CARIBBEAN - Santiago

1 P-5 Regional Officer (Science and Technology)

NEAR EAST- Rome

1 P-5 Regional Officer (Science and Technology)

1/ Technical backstopping is provided for these posts

AGS

OFFICE OF DIRECTOR

- 1 D-2 Director
- 1 P-5 Senior Officer (Programme and Planning)
- 1 P-5 Senior Officer (Post-Harvest Food Losses)
- 1 P-5 Agricultural Services Officer (WFP/S)
- 1 P-4 Agricultural Officer (Food Losses Prevention)

ADMINISTRATIVE UNIT

- 1 P-3 Executive Officer
- 1 P-2 Administrative Officer

FARM MANAGEMENT AND PRODUCTION ECONOMICS SERVICE

- 1 D-1 Chief
- 1 P-5 Agricultural Production Economist
- 1 P-5 Senior Officer (Farming Systems)
- 1 P-4 Agricultural Production Economist

AGRICULTURAL ENGINEERING SERVICE

- 1 D-1 Chief
- 1 P-5 Senior Officer (Agricultural Engineering)

Agricultural Mechanization Group

- 1 P-5 Agricultural Engineer (Farm Mechanization)
- 1 P-4 Agricultural Engineer (Mechanization of Irrigated Crop Production)
- 1 P-4 Agricultural Engineer (Systems Engineering)
- 1 P-3 Agricultural Engineer (Farm Power and Machinery)

Storage and Farm Structures Group

- 1 P-5 Agricultural Engineer (Storage of Food Crops)
- 1 P-4 Agricultural Engineer (Post-Harvest Technology) (UNDP/S)

FOOD AND AGRICULTURAL INDUSTRIES SERVICE

- 1 D-1 Chief

Food and Industries Group

- 1 P-5 Senior Officer (Food Industries)
- 1 P-5 Food Industries Officer
- 1 P-4 Food Industries Officer

Agricultural Industries Group

- 1 P-5 Senior Officer (Agricultural Industries)
- 3 P-4 Agricultural Industries Officers

MARKETING AND CREDIT SERVICE

- 1 D-1 Chief

Marketing and Farm Supply Group

- 1 P-5 Senior Officer (Marketing and Farm Supply)
- 1 P-5 Marketing Economist
- 1 P-4 Marketing Economist
- 1 P-3 Marketing Economist

Agricultural Banking and Credit Group

- 1 P-5 Senior Officer (Agricultural Banking and Credit)
- 2 P-4 Agricultural Credit Officers

REGIONAL OFFICERS 1/

AFRICA - Accra

- 1 P-5 Agricultural Services Officer (Post-Harvest and Food Storage)
- 1 P-4 Agro-Industries Officer
- 1 P-4 Marketing and Credit Officer
- 1 P-4 Marketing Economist (JAIFR)

ASIA AND THE PACIFIC - Bangkok

- 1 P-5 Agricultural Engineering and Agro-Industries Officer
- 1 P-5 Farm Management Economist
- 1 P-4 Credit and Cooperatives Officer

LATIN AMERICA AND THE CARIBBEAN - Santiago

- 1 P-5 Food Technology and Agro-Industries Officer
- 1 P-4 Agricultural Services Officer (Post-Harvest Food Losses)
- 1 P-4 Marketing and Credit Officer
- 1 P-4 Regional Officer (Farm Management and Production Structures)

NEAR EAST - Rome

- 1 P-5 Credit and Marketing Officer
- 1 P-5 Agro-Industries Officer

1/ Technical backstopping is provided for these posts

ECONOMIC AND SOCIAL POLICY DEPARTMENT

Unit	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget
ESD	2 760	295	585	3 640
ESH	19 758	(19)	3 584	23 323
ESH	16 381	331	2 805	19 517
ESN	13 831	98	2 321	16 250
ESP	11 514	114	2 128	13 756
ESS	14 573	182	2 849	17 604
TOTAL	78 817	1 001	14 272	94 090

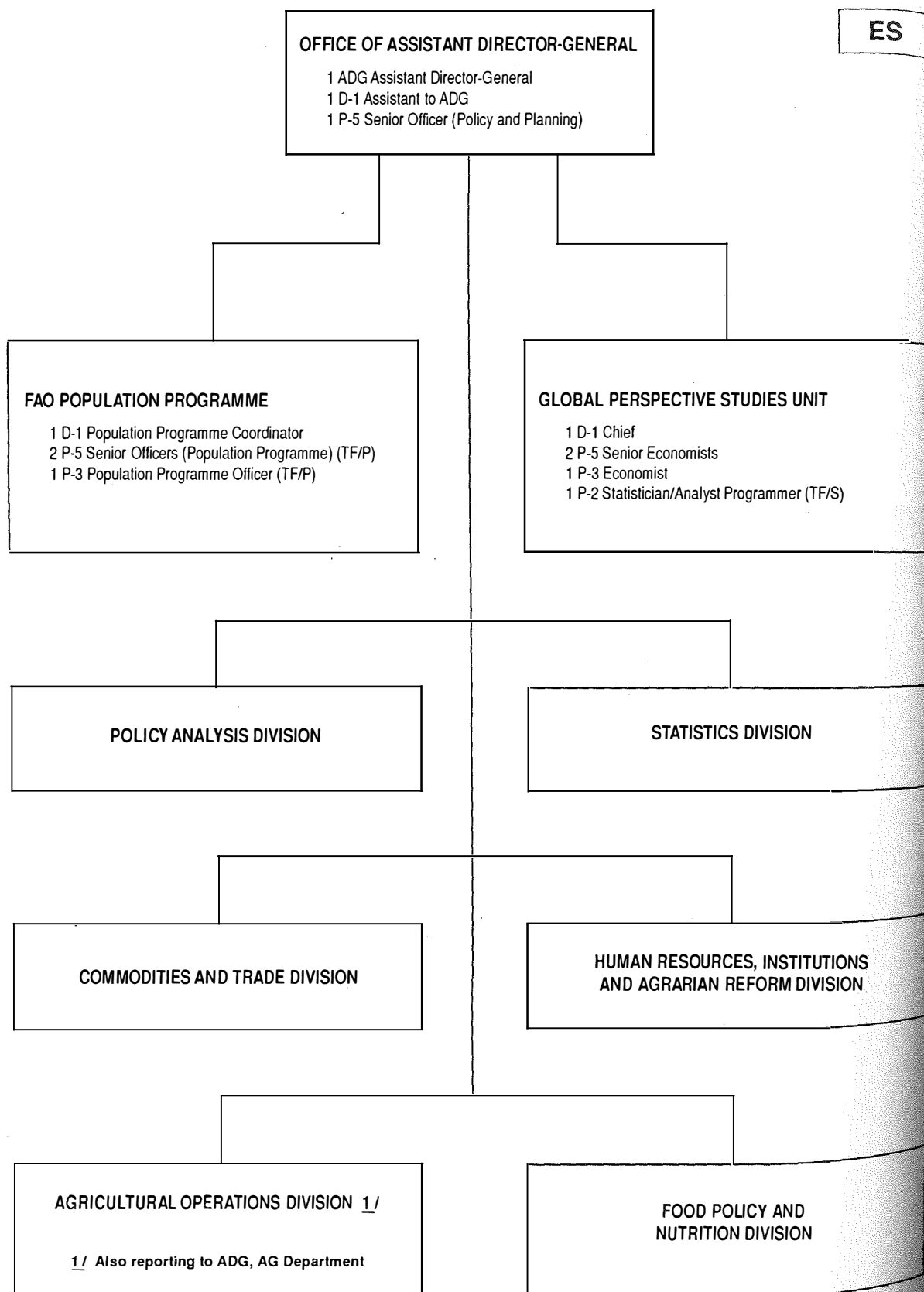
* Increase (Decrease)

	New Posts	Changes in Posts (RP)	Abolished Posts
ESD	D-1 Coordinator, Population Programme P-5 Senior Economist		Nil
ESC	Nil		G-4 Research Clerk G-4 Clerk-Stenographer
ESH	P-4 Training and Project Development Officer P-4 Secretary, World Food Day Committee G-6 Administrative Assistant (WFD)		2 x G-4 Clerk-Stenographers G-4 Bilingual Stenographer G-3 Stenographer
ESN	Nil		G-4 Clerk-Stenographer 2 x G-3 Stenographers
ESP	P-4 Economist		G-6 Research Assistant G-5 Administrative Clerk G-3 Bilingual Typist
ESS	Nil		G-6 Scheduling Assistant G-4 Statistical Clerk G-2 typist

1988-89 and 1990-91 Divisional Summary by Budget Component (\$US 000's)

Unit	Salaries & Common Staff Costs		Consultants	Contractual Services	Official Travel	Meetings	Operating Expenses	Publications and Documents	Computer Services	Other	TOTAL
	Staff	Costs									
ESD	1988-89	1 764	350	194	103	52	67	116	114	0	2 760
	1990-91	2 715	279	149	108	54	92	144	99	0	3 640
ESC	1988-89	12 416	1 160	812	1 006	1 072	500	2 444	348	0	19 758
	1990-91	15 140	1 340	843	1 006	982	651	3 005	356	0	23 323
ESH	1988-89	9 574	730	2 811	1 135	100	347	1 490	100	94	16 381
	1990-91	12 458	917	2 941	988	36	369	1 637	71	100	19 517
ESN	1988-89	6 977	1 412	1 911	735	205	226	1 958	267	140	13 831
	1990-91	8 569	1 440	2 113	818	252	245	2 317	357	139	16 250
ESP	1988-89	7 492	934	1 003	734	38	347	712	254	0	11 514
	1990-91	9 255	1 065	1 187	657	31	356	954	251	0	13 756
ESS	1988-89	10 375	525	624	440	10	165	1 263	1 171	0	14 573
	1990-91	12 689	662	632	474	10	248	1 525	1 364	0	17 604
ES DEPT	1988-89	48 598	5 111	7 355	4 153	1 477	1 652	7 983	2 254	234	78 817
	1990-91	60 826	5 703	7 865	4 051	1 365	1 961	9 582	2 498	239	94 090

ES



OFFICE OF DIRECTOR

1 D-2 Director
1 P-4 Programme and Executive Officer
1 P-2 Administrative Officer

ESC

FOOD SECURITY SERVICE

1 D-1 Chief

Food Security Assistance Group

1 P-5 Senior Economist
1 P-5 Economist (TF/S)
1 P-4 Economist
1 P-3 Economist (TF/S)

Food Security and Food Aid Policies Group

1 P-5 Senior Economist
2 P-4 Economists
1 P-3 Economist (WFP/S)
1 P-1/P-2 Economist

**GLOBAL INFORMATION AND
EARLY WARNING SERVICE**

1 D-1 Chief

Early Warning Group

1 P-4 Economist (Agricultural Economics)
1 P-3 Economist (Agricultural Economics)
2 P-2 Economists (Agricultural Economics)

Global Food Information Group

1 P-5 Senior Economist (Agricultural Economics)
1 P-4 Economist (Agricultural Economics)
1 P-3 Economist (Agricultural Economics)

REGIONAL OFFICERS 1/

United Nations Liaison, Geneva

1 P-4 Economist

Liaison Office for North America, Washington D.C.

1 P-5 Senior Economist

ASIA AND THE PACIFIC - Bangkok

1 P-5 Economist (Food Security and Food Marketing)

LATIN AMERICA AND THE CARIBBEAN - Santiago

1 P-5 Commodities and Trade Officer
1 P-4 Commodities Officer

1/ Technical backstopping is provided for these posts

**RAW MATERIALS, TROPICAL AND
HORTICULTURAL PRODUCTS SERVICE**

1 D-1 Chief

1 P-5 Senior Commodity Specialist

Sugar and Tropical Products Group

1 P-5 Senior Commodity Specialist
1 P-4 Commodity Specialist
1 P-3 Commodity Specialist
1 P-2 Commodity Specialist

Horticultural Products, Rubber and Soft Fibres Group

1 P-5 Senior Commodity Specialist
1 P-4 Commodity Specialist
1 P-3 Commodity Specialist

Hides and Skins, Cotton and Hard Fibres Group

1 P-5 Senior Commodity Specialist
1 P-4 Commodity Specialist
1 P-2 Commodity Specialist

COMMODITY POLICY AND PROJECTIONS SERVICE

1 D-1 Chief

1 P-5 Senior Economist

Trade and Commodity Policy Group

1 P-5 Senior Economist
1 P-4 Economist
1 P-3 Economist

General Analysis and Projections Group

1 P-5 Senior Econometrician
1 P-3 Econometrician
1 P-1/P-2 Economist

BASIC FOODSTUFFS SERVICE

1 D-1 Chief

Oilseeds, Meat and Dairy Group

1 P-5 Senior Commodity Specialist
2 P-4 Commodity Specialists
2 P-3 Commodity Specialists
1 P-1/P-2 Commodity Specialist

Grains and Rice Group

1 P-5 Senior Commodity Specialist
3 P-4 Commodity Specialists
1 P-3 Commodity Specialist
2 P-2 Commodity Specialists

ESH

OFFICE OF DIRECTOR

- 1 D-2 Director
- 1 P-5 Senior Officer (Planning and Programming)
- 1 P-5 Agrarian Reform and Rural Development Officer
- 1 P-5 Senior Liaison Officer (WFP) (WFP/S)
- 1 P-3 Executive Officer
- 1 P-4 Secretary, Advisory Committee on World Food Day

RURAL DEVELOPMENT ANALYSIS AND ORGANIZATION SERVICE

- 1 D-1 Chief
- Rural Development Group**
 - 1 P-5 Senior Officer (Rural Development)
 - 2 P-4 Rural Development Officers
- Rural Employment and Manpower Planning Group**
 - 1 P-5 Senior Employment Manpower Officer
 - 1 P-2 Rural Employment and Manpower Officer
- Rural Development Organization Group**
 - 1 P-5 Senior Officer (Rural Development Organization)
 - 1 P-4 Rural Development Organization Officer
- Cooperatives and Other Rural Organizations Groups**
 - 1 P-5 Senior Officer (Cooperatives and Rural Organizations)
 - 1 P-4 Rural Organizations Officer
 - 2 P-4 Cooperatives and Rural Organizations Officers
 - 1 P-4 Small Farmer and Rural Organizations Officer
- Committee for the Promotion of Aid to Cooperatives (COPAC)**
 - 1 P-5 Executive Secretary (TF/P)

AGRARIAN REFORM AND LAND SETTLEMENT SERVICE

- 1 D-1 Chief
- Land Tenure and Settlement Group**
 - 2 P-5 Senior Officers (Land Tenure and Settlement)
 - 1 P-4 Land Tenure and Settlement Officer
 - 1 P-4 Agrarian Analysis Officer
 - 1 P-3 Land Tenure and Settlement Officer
- Production Structure Group**
 - 1 P-5 Senior Officer (Production Structure)

WOMEN IN AGRICULTURAL PRODUCTION AND RURAL DEVELOPMENT SERVICE

- 1 D-1 Chief
- 1 P-4 Training and Project Development Officer
- Home Economics Group**
 - 1 P-5 Senior Officer (Home Economics)
 - 1 P-5 Senior Officer (Women in Food Systems)
 - 1 P-4 Home Economics Officer
 - 1 P-4 Women in Food Systems Officer
- Integration of Women In Development Group**
 - 1 P-5 Senior Officer (Women in Development)
 - 1 P-4 Women in Food Systems Officer
- Population Programmes Group**
 - 1 P-4 Population Education Officer (TF/P)
 - 1 P-1/P-2 Documentation Officer (TF/P)

AGRICULTURAL EDUCATION AND EXTENSION SERVICE

- 1 D-1 Chief
- Agricultural Training and Extension Group**
 - 1 P-5 Senior Officer (Agricultural Training and Extension)
 - 2 P-5 Agricultural Training and Extension Officers
 - 2 P-4 Agricultural Training and Extension Officers
- Agricultural Education Group**
 - 1 P-5 Senior Officer (Agricultural Education)
 - 1 P-5 Agricultural Extension, Education and Training Methodology Specialist
 - 2 P-4 Agricultural Education Officers

REGIONAL OFFICERS 1/

NEAR EAST - Rome

- 1 P-5 Home Economics and Social Programmes Officer
- 1 P-4 Rural Development Officer (Agrarian Reform and Cooperatives)
- 1 P-4 Agricultural Extension Education and Training Officer

AFRICA - Accra

- 1 P-4 Agricultural Officer (Education and Extension)
- 1 P-4 Land Tenure and Settlement Officer
- 1 P-4 Women in Development Officer
- 1 P-4 National and Regional Institutions Officer (Agrarian Reform)

AFRICA - (Joint Divisions)

- 1 P-4 Project Analyst
- 1 P-4 Rural Development Officer (JAFR)

ASIA AND THE PACIFIC - Bangkok

- 1 D-1 Senior Rural Development Officer
- 1 P-4 Home Economics and Social Programmes Officer

LATIN AMERICA AND THE CARIBBEAN - Santiago

- 1 P-5 Agrarian Reform and Rural Development Officer
- 1 P-4 Agricultural Education and Extension Officer
- 1 P-4 Home Economics and Social Programmes Officer

1/ Technical backstopping is provided for these posts

ESN

OFFICE OF DIRECTOR

1 D-2 Director
1 P-4 Programme and Executive Officer

NUTRITION PROGRAMMES SERVICE

1 D-1 Chief
1 P-3 Nutrition Officer (Technical Editor)

Community Nutrition Group

1 P-5 Senior Officer (Community Nutrition)
1 P-4 Nutrition Officer (Training)
1 P-4 Nutrition Officer (Intervention Programmes)
1 P-4 Nutrition Officer (Community Nutrition)
1 P-3 Nutrition Officer (Community Nutrition)
1 P-3 Nutrition Officer (Relief Interventions)

Food Aid Support Group

1 P-5 Senior Officer (Food Aid Support) (WFP/S)
1 P-4 Nutrition Officer (WFP) (WFP/S)
1 P-4 Nutrition Officer (Feeding Programmes) (WFP/S)

**NUTRITION PLANNING, ASSESSMENT
AND EVALUATION SERVICE**

1 D-1 Chief
1 P-5 Senior Officer (Nutrition Information)

Nutrition Planning Support Group

1 P-5 Senior Officer (Nutrition Planning Support)
1 P-4 Nutrition Officer (Nutrition Policy)
1 P-4 Nutrition Officer (Nutrition in Agriculture)
1 P-3 Nutrition Officer (Nutrition Assessment)
1 P-3 Nutrition Officer (Nutrition Planning)

Impact Assessment and Evaluation Group

1 P-5 Senior Officer (Food and Nutrition Requirements)
1 P-4 Nutrition Officer (Nutrition Assessment)
1 P-3 Nutrition Officer (Food Consumption)

FOOD QUALITY AND STANDARDS SERVICE

1 D-1 Chief (TF/P)

Joint FAO/WHO Food Standards Programme Group

1 P-5 Senior Officer (Food Standards) (TF/P)
4 P-4 Food Standards Officers (TF/P)

Food Quality and Consumer Protection Group

1 P-5 Senior Officer (Food Quality and
Consumer Protection)
1 P-4 Nutrition Officer (Consumer Protection)
1 P-4 Nutrition Officer (Food Safety and Additives)
1 P-4 Nutrition Officer (Food Science)
1 P-4 Nutrition Officer (Food Protection)
1 P-3 Nutrition Officer (Food Contamination Monitoring)

REGIONAL OFFICERS 1/

AFRICA - Accra

1 P-5 Food and Nutrition Officer

ASIA AND THE PACIFIC - Bangkok

1 P-5 Food Policy and Nutrition Officer

LATIN AMERICA AND THE CARIBBEAN - Santiago

1 P-4 Food and Nutrition Officer

NEAR EAST - Rome

1 P-4 Nutrition Officer

EUROPE - Geneva (JEUR)

1 P-3 Food Standards Officer

1/ Technical backstopping is provided for these posts

ESP

OFFICE OF DIRECTOR

1 D-2 Director
1 P-4 Programme and Executive Officer
1 P-2 Administrative Officer

DEVELOPMENT POLICY STUDIES AND TRAINING SERVICE

1 D-1 Chief

Policy Studies Group

1 P-5 Senior Economist
1 P-4 Economist

Training Group

1 P-5 Senior Economist (Development Training)
2 P-4 Economists (Training)
1 P-3 Economist (Training)
1 P-1/P-2 Economist (Training)

SITUATION AND OUTLOOK SERVICE

1 D-1 Chief
1 P-5 Senior Economist

Situation and Outlook Group

1 P-5 Senior Economist
2 P-4 Economists
1 P-3 Economist
2 P-2 Economists

PLANNING ASSISTANCE SERVICE

1 D-1 Chief

Africa South of the Sahara Group

1 P-5 Senior Economist
3 P-4 Economists
1 P-4 Agricultural Planning Economist

Asia and Pacific Group

1 P-5 Senior Economist
1 P-4 Economist
2 P-3 Economists

Latin America Group

1 P-5 Senior Economist
2 P-4 Economists
1 P-2 Economist

Near East and North Africa Group

1 P-5 Senior Economist
2 P-4 Economists (1 TF/S)

REGIONAL OFFICERS 1/

AFRICA - Accra

1 P-5 Agricultural Planning Economist
1 P-5 Senior Agricultural Economist (JAFR)
1 P-4 Agricultural Economist (Planning) (JAFR)
1 P-3 Economist (JAFR)

ASIA AND THE PACIFIC - Bangkok

1 P-5 Agricultural Planning Economist
1 P-4 Development Planning Officer
1 P-3 Economist

LATIN AMERICA AND THE CARIBBEAN - Santiago

1 P-4 Economist (Integration and Investment)
1 P-5 Agricultural Economist (Training) (JLAC)
1 P-4 Agricultural Economist (JLAC)
2 P-4 Economists (JLAC)

NEAR EAST - Rome

1 P-5 Agricultural Planning Economist
1 P-4 Agricultural Economist
1 P-4 Economist (Agricultural Research Planning) (JNEA)
1 P-5 Senior Agricultural Economist (JNEA)

EUROPE - Geneva

1 D-1 Economist (REUR)
1 P-5 Senior Economist (JEUR)
2 P-4 Economists (JEUR)

1/ Technical backstopping is provided for these posts

ESS

OFFICE OF DIRECTOR

- 1 D-2 Director
- 1 P-4 Programme and Executive Officer
- 1 P-4 Statistician

STATISTICAL ANALYSIS SERVICE

- 1 D-1 Chief
- 1 P-5 Senior Officer (Food Consumption and Nutrition Statistics)
- 1 P-5 Senior Officer (Economic Statistics)
- 1 P-4 Statistician
- 4 P-3 Statisticians
- 1 P-3 Systems Analyst
- 2 P-2 Statisticians
- 1 P-1/P-2 Statistician

BASIC DATA UNIT

- 1 P-5 Chief
- 2 P-4 Statisticians
- 3 P-3 Statisticians

STATISTICAL DEVELOPMENT SERVICE

- 1 D-1 Chief
- 1 P-5 Senior Officer (Statistics Development)
- 1 P-5 Senior Officer (Agricensus and Surveys)
- 1 P-5 Senior Officer (Social Statistics)
- 3 P-4 Statisticians
- 2 P-3 Statisticians

REGIONAL OFFICERS 1/

AFRICA

- 1 P-4 Statistician - Accra
- 1 P-4 Statistician (JAFR) - Addis Ababa

ASIA AND THE PACIFIC - Bangkok

- 1 P-5 Statistician

NEAR EAST - Rome

- 1 P-5 Statistician

1/ Technical backstopping is provided for these posts

FISHERIES DEPARTMENT

Unit	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget
FI	28 383	400	5 266	34 049

* Increase (Decrease)

Changes in Posts (RP)

New Posts

FI P-5 Senior Aquaculture Development
 Adviser
 P-4 Fishery Resources Officer (Fish
 Utilization)
 P-3 Fishery Information Officer

Abolished Posts

2 x P-4 Fishery Industry Officers
G-6 Administrative Assistant
G-4 Budget Clerk
G-4 Library Clerk
2 x G-4 Clerk-Stenographers
G-3 Bilingual Typist

1988-89 and 1990-91 Divisional Summary by Budget Component (\$US 000's)

Unit	Salaries & Common Staff Costs	Consultants	Contractual Services	Official Travel	Meetings	Operating Expenses	Publications and Documents	Computer Services	Other	TOTAL
FI	17 298	1 666	1 975	2 368	818	416	3 494	348	0	28 383
1990-91	21 803	1 742	2 483	2 358	779	500	3 961	423	0	34 049

OFFICE OF ASSISTANT DIRECTOR-GENERAL

1 ADG Assistant Director-General
1 D-1 Assistant to ADG

OPERATIONS SERVICE

1 D-2 Director (UNDP/S)
1 P-5 Senior Project Operations Officer (TF/S)
3 P-5 Senior Project Operations Officers (UNDP/S)
1 P-5 Senior Officer, Trust Funds (TF/S)
1 P-4 Project Operations Officer (UNDP/S)
4 P-4 Project Operations Officers (TF/S)
1 P-4 Marine Engineer (UNDP/P)
1 P-3 Technical Editor (UNDP/S)
1 P-3 Project Operations Officer (UNDP/S)
1 P-1/P-2 Technical Editor (TF/S)

FISHERY INFORMATION DATA AND STATISTICS SERVICE

1 D-1 Chief
1 P-5 Senior Fishery Statistician
1 P-4 Fishery Information Officer
1 P-4 Fishery Data Officer
1 P-3 Fishery Statistician
1 P-3 Fishery Information Officer
1 P-2 Fishery Information Officer
1 P-1/P-2 Fishery Statistician
1 P-1/P-2 Analyst/Programmer
1 P-1 Librarian^{1/}

^{1/} Outposted from GIL (for funding see their table)

MANAGEMENT SUPPORT UNIT

1 P-5 Chief
1 P-4 Finance Officer^{1/}
1 P-4 Personnel Officer^{1/}
1 P-3 Personnel Officer (UNDP/S)
1 P-1/P-2 Equipment Officer (UNDP/S)

^{1/} Outposted from AFF and AFP (for funding see their tables)

FISHERY POLICY AND PLANNING DIVISION

OFFICE OF DIRECTOR

1 D-2 Director

DEVELOPMENT PLANNING SERVICE

1 D-1 Chief
4 P-5 Senior Fishery Planning Officers
2 P-4 Fishery Planning Officers
2 P-3 Fishery Planning Analysts

INTERNATIONAL INSTITUTIONS AND LIAISON UNIT

1 P-5 Chief
1 P-5 Senior Fishery Liaison Officer
1 P-5 Senior Liaison Officer (International Institutions)
2 P-4 Fishery Liaison Officers
1 P-3 Fishery Liaison Officer
1 P-1/P-2 Meetings Officer

REGIONAL OFFICERS^{1/}

AFRICA - Accra

1 P-5 Fishery Officer
1 P-4 Fishery Officer

ASIA AND THE PACIFIC - Bangkok

1 P-5 Fishery Officer
1 P-4 Fishery Officer (Aquaculture)

LATIN AMERICA AND THE CARIBBEAN - Santiago

1 P-5 Fishery Officer
1 P-4 Fishery Officer

NEAR EAST - Rome

1 P-5 Fishery Officer

^{1/} Technical backstopping is provided for these posts

FI

**FISHERY RESOURCES AND ENVIRONMENT
DIVISION**

OFFICE OF DIRECTOR

- 1 D-2 Director
- 1 P-5 Senior Fishery Resources Officer

MARINE RESOURCES SERVICE

- 1 D-1 Chief
- 3 P-5 Senior Fishery Resources Officers
- 5 P-4 Fishery Resources Officers
- 1 P-3 Fishery Resources Officer

INLAND WATER RESOURCES AQUACULTURE SERVICE

- 1 D-1 Chief
- 2 P-5 Senior Fishery Resources Officers
- 1 P-5 Senior Fishery Resources Officer (Aquatic Pollution)
- 1 P-5 Senior Aquaculture Development Adviser
- 3 P-4 Fishery Resources Officers
- 2 P-4 Fishery Resources Officers (Aquaculture)
- 1 P-4 Fishery Resources Officer (Fish Utilization)

FISHERY INDUSTRIES DIVISION

OFFICE OF DIRECTOR

- 1 D-2 Director
- 1 P-5 Senior Fishery Industry Officer

FISHING TECHNOLOGY SERVICE

- 1 D-1 Chief
- 1 P-5 Senior Fishery Industry Officer
- 5 P-4 Fishery Industry Officers
- 1 P-4 Fishery Industry Officer (Training)
- 1 P-3 Fishery Industry Officer
- 1 P-3 Fishery Industry Officer (Trade Information)

FISH UTILIZATION AND MARKETING SERVICE

- 1 D-1 Chief
- 2 P-5 Senior Fishery Industry Officers
- 4 P-4 Fishery Industry Officers
- 1 P-3 Fishery Industry Officer

FORESTRY DEPARTMENT

Unit	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget
FO	18 157	450	3 418	22 025

* Increase (Decrease)

<u>Changes in Posts (RP)</u>	
<u>New Posts</u>	<u>Abolished Posts</u>
FO	G-5 Research Clerk
D-1 Coordinator, TFAP	G-4 Clerk-Stenographer
P-5 Senior Forestry Officer (Forestry Research)	G-4 Bilingual Stenographer
P-4 Forestry Officer (Forest Protection)	
P-4 Forestry Officer (Non-Wood Forest Products)	
P-4 Forestry Officer (Forest Genetic Resources)	

1988-89 and 1990-91 Divisional Summary by Budget Component (\$US 000's)

Unit	Salaries & Common		Contractual	Official	Meetings	Operating	Publications	Computer	Other	TOTAL
	Staff	Costs	Consultants	Travel	Expenses	and	Documents	Services		
FO	10 272	1 368	1 855	1 038	724	455	2 011	434	0	18 157
1990-91	13 727	1 218	1 969	1 082	578	524	2 561	366	0	22 025

OFFICE OF ASSISTANT DIRECTOR-GENERAL

- 1 ADG Assistant Director-General
- 1 D-1 Assistant to ADG
- 1 D-1 Coordinator, Tropical Forestry Action Plan
- 1 P-5 Senior Forestry Officer (Coordinator Wood Energy Programme)
- 1 P-4 Regional TFAP Adviser for Asia and the Pacific Region
- 1 P-4 Regional TFAP Adviser for Africa
- 1 P-3 Programming Officer

POLICY AND PLANNING SERVICE

- 1 D-1 Chief
- 1 P-5 Senior Forestry Planning Officer
- 1 P-5 Senior Forestry Economist
- 1 P-5 Senior Forestry Officer (Trade and Marketing)
- 1 P-4 Forestry Officer (Community Forestry)
- 2 P-3 Forestry Officers
- 1 P-3 Technical Editor
- 1 P-2 Forestry Officer (Statistics)

OPERATIONS SERVICE

- 1 D-2 Director (UNDP/S)
- 1 P-5 Senior Project Operations Officer (TF/S)
- 3 P-5 Senior Operations Officers (2 UNDP/S; 1 TF/S)
- 4 P-4 Project Operations Officers (UNDP/S)
- 2 P-4 Project Operations Officers (WFP/S)
- 4 P-3 Project Operations Officers (3 UNDP/S; 1 TF/S)

REGIONAL OFFICERS 1/

AFRICA - Accra

- 1 P-5 Forestry Officer

ASIA AND THE PACIFIC - Bangkok

- 1 P-5 Forestry Officer
- 1 P-4 Forestry Economist

LATIN AMERICA AND THE CARIBBEAN - Santiago

- 1 P-5 Forestry Officer
- 1 P-4 Forestry Officer

NEAR EAST - Rome

- 1 P-5 Forestry Officer

EUROPE - Geneva (JEUR)

- 1 P-5 Senior Forestry Officer
- 1 P-3 Forestry Officer

1/ Technical backstopping is provided for these posts

MANAGEMENT SUPPORT UNIT

- 1 P-5 Chief
- 1 P-4 Personnel Officer 1/ (TF/S)
- 1 P-3 Personnel Officer
- 1 P-4 Finance Officer 2/ (TF/S)
- 1 P-1/P-2 Budget Officer (TF/S)
- 1 P-2 Administrative Officer

1/ Outposted from AFP

2/ Outposted from AFP

FO

FOREST RESOURCES DIVISION

OFFICE OF DIRECTOR

- 1 D-2 Director
- 1 P-4 Forestry Officer (Land Use)

FOREST AND WILDLANDS CONSERVATION BRANCH

- 1 P-5 Chief
- 1 P-5 Senior Forestry Officer (Wildlife and Protected Area Management)
- 1 P-4 Forestry Officer (Forest Conservation)
- 1 P-4 Forestry Officer (Arid Zones and Fuelwood Forestry)

FOREST RESOURCES DEVELOPMENT BRANCH

- 1 P-5 Chief
- 1 P-5 Senior Forestry Officer (Resources Appraisal and Monitoring)
- 1 P-5 Senior Forestry Officer (Plantations and Protection)
- 1 P-4 Forestry Officer (Forest Management)
- 1 P-4 Forestry Officer (Forest Genetic Resources)
- 1 P-4 Forestry Officer (Forest Protection)

FOREST EDUCATION, EMPLOYMENT AND INSTITUTIONS BRANCH

- 1 P-5 Chief
- 1 P-5 Senior Forestry Officer (Forestry Research)
- 1 P-4 Forestry Officer (Education)
- 1 P-4 Forestry Officer (Institutions)

FOREST INDUSTRIES DIVISION

OFFICE OF DIRECTOR

- 1 D-2 Director

PULP AND PAPER BRANCH

- 1 P-5 Chief
- 1 P-4 Forestry Officer (Pulp and Paper Technology)
- 1 P-4 Forestry Officer (Industry Planning)

MECHANICAL WOOD PRODUCTS BRANCH

- 1 P-5 Chief
- 1 P-5 Senior Forestry Officer (Wood-Based Panel Industries)
- 1 P-4 Forestry Officer (Sawmilling)
- 1 P-4 Forestry Officer (Wood-Based Energy)
- 1 P-4 Forestry Officer (Non-Wood Forest Products)

FOREST LOGGING AND TRANSPORT BRANCH

- 1 P-5 Chief
- 1 P-4 Forestry Officer (Logging)
- 1 P-4 Forestry Officer (Harvesting Management)

DEVELOPMENT DEPARTMENT

Unit	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget
DDD	820	0	152	972
DDA	1 324	0	190	1 514
DDC	21 118	(428)	3 165	23 855
DDF	5 766	0	1 108	6 874
TOTAL	29 028	(428)	4 615	33 215

* Increase (Decrease)

Changes in Posts (RP)

New Posts

DDC

Nil

Abolished Posts

D-1 Senior Adviser
3 x D-1 Agricultural Economists
D-1 Fishery Officer
2 x P-4 Project Analysts
P-4 Agricultural Economist

DDF

P-5 Senior Officer (Field Office Inspection)

P-4 Programme Officer
P-2 Programme Officer

1988-89 and 1990-91 Divisional Summary by Budget Component (\$US 000's)

Unit	Salaries & Common Staff Costs		Contractual Services	Official Travel	Meetings	Operating Expenses	Publications and Documents	Computer Services	Other	TOTAL
	Staff	Costs								
DDD	1988-89	564	25	13	150	0	44	24	0	820
	1990-91	714	21	24	150	0	56	7	0	972
DDA	1988-89	540	215	214	110	36	47	162	0	1 324
	1990-91	780	175	181	100	37	45	196	0	1 514
DDC	1988-89	13 458	4 200	227	1 960	27	610	91	345	21 118
	1990-91	16 347	4 150	163	1 965	0	650	61	319	23 855
DDF	1988-89	3 958	25	156	478	0	492	343	314	5 766
	1990-91	4 839	45	167	498	21	566	424	314	6 874
DD	1988-89	18 520	4 465	610	2 698	63	1 193	620	659	29 028
DEPT	1990-91	22 680	4 391	535	2 713	58	1 317	688	633	33 215

1988-89 and 1990-91 Divisional Summary by Budget Component (\$US 000's)

Unit	Salaries & Common Staff Costs		Consultants	Contractual Services	Official Travel	Meetings	Operating Expenses	Publications and Documents	Computer Services	Other	TOTAL
	1988-89	1990-91									
FAOR	34 231	42 849	455	473	2 276	0	10 216	0	0	0	47 651
			500	535	2 500	0	8 828	0	0	0	55 212

1988-89 and 1990-91 Divisional Summary by Budget Component (\$US 000's)

[illegible]

FIELD PROGRAMME DEVELOPMENT DIVISION

OFFICE OF DIRECTOR

1 D-2 Director (UNDP/S)

ADMINISTRATIVE UNIT

1 P-4 Executive Officer (UNDP/S)

1 P-2 Administrative Officer

TCDC, INTER-REGIONAL AND GLOBAL PROGRAMMES AND OTHER SPECIAL MATTERS UNIT

1 D-1 Chief (UNDP/S)

1 P-4 Programme Officer (UNDP/S)

WFP LIAISON UNIT

1 D-1 Senior Liaison Officer (WFP/S)

1 P-5 Senior Project Analyst (WFP/S)

1 P-4 Project Analyst (WFP/S)

1 P-3 Project Analyst (WFP/S)

DECENTRALIZATION SUPPORT UNIT

1 D-1 Senior Adviser

1 P-5 Senior Officer (Field Office Inspection)

2 P-4 Programme Officers

POLICIES, PROCEDURES AND PROGRAMME STATISTICS UNIT

1 D-1 Chief

1 P-4 Programme Officer (TF/S)

TECHNICAL COOPERATION PROGRAMME UNIT

1 D-1 Coordinator

1 P-5 Senior Programme Officer

1 P-4 Programme Officer

2 P-3 Programme Officers

SPECIAL PROGRAMMES LIAISON SERVICE

1 D-1 Coordinator (TF/S)

1 P-5 Senior Liaison Officer

2 P-5 Senior Liaison Officers (TF/S)

3 P-4 Liaison Officers (TF/S)

1 P-4 Programme Analyst (TF/P)

2 P-3 Liaison Officers (TF/S)

1 P-2 Liaison Officer (TF/S)

REGIONAL BUREAUX

Regional Bureau for Near East and North Africa

1 D-1 Chief (UNDP/S)

1 P-5 Senior Field Programme Officer (UNDP/S)

2 P-4 Field Programme Officers (1 UNDP/S; 1 TF/S)

Regional Bureau for Asia and the Pacific

1 D-1 Chief (UNDP/S)

1 P-5 Senior Field Programme Officer (UNDP/S)

2 P-4 Field Programme Officers (UNDP/S)

Regional Bureau for Latin America and the Caribbean

1 D-1 Chief (UNDP/S)

2 P-5 Senior Field Programme Officers (UNDP/S)

1 P-4 Field Programme Officer (UNDP/S)

Regional Bureau for Africa

1 D-1 Chief (UNDP/S)

3 P-5 Senior Field Programme Officers

2 P-5 Senior Field Programme Officers (UNDP/S)

1 P-4 Field Programme Officer (UNDP/S)

1 P-4 Field Programme Officer

2 P-4 Field Programme Officers (Editing/Report Writers)

1 P-2 Programme Officer (UNDP/S)

OFFICE OF ASSISTANT DIRECTOR-GENERAL

1 ADG Assistant Director-General

1 D-2 Special Adviser to ADG (TF/S)

1 D-1 Adviser on Special Development Subjects (TF/S)

1 P-5 Senior Liaison Officer (TF/S)

FAO REPRESENTATIVES

FFH/ACTION FOR DEVELOPMENT

Office of Coordinator

1 P-5 Coordinator

Programme Unit

2 P-4 Programme Officers (TF/S)

DD

INVESTMENT CENTRE

OFFICE OF DIRECTOR

- 1 D-2 Director
- 1 D-1 Deputy Director (WB/CP)
- 1 P-5 Investment Development Officer

SENIOR ADVISORY UNIT

- 1 D-1 Senior Adviser (Economics)
- 1 D-1 Senior Adviser (Quality Control) (WB/CP)
- 1 D-1 Senior Adviser (Agronomy) (WB/CP)
- 1 D-1 Senior Adviser (Agronomy)

MANAGEMENT SUPPORT UNIT

- 1 P-5 Chief (WB/CP)
- 1 P-4 Programme Officer
- 1 P-4 Personnel Officer 1 /
- 1 P-4 Budget and Finance Officer (WB/CP)
- 1 P-1/P-2 Cartographer (WB/CP)

1 / Outposted from AFP
(for funding see their table)

FAO/WORLD BANK COOPERATIVE PROGRAMME

EUROPE, NEAR EAST AND EAST AFRICA SERVICE (I)

- 1 D-1 Chief
- 1 P-5 Senior Credit Specialist
- 2 P-5 Irrigation Engineers
- 4 P-5 Agricultural Officers
- 1 P-5 Animal Production Officer (Livestock)
- 1 P-5 Project Analyst
- 2 P-5 Agricultural Economists
- 1 P-5 Agricultural Officer (Research)
- 2 P-4 Project Analysts
- 1 P-3 Project Officer

ASIA AND THE PACIFIC SERVICE (II)

- 1 D-1 Chief
- 1 D-1 Irrigation Engineer
- 3 P-5 Agricultural Economists
- 1 P-5 Agricultural Economist (Marketing)
- 5 P-5 Agricultural Officers
- 2 P-5 Irrigation Engineers
- 1 P-5 Animal Production Officer (Livestock)
- 1 P-5 Agricultural Credit Officer
- 1 P-4 Agricultural Officer
- 1 P-4 Fishery Officer

LATIN AMERICA AND WEST AFRICA SERVICE (III)

- 1 D-1 Chief
- 1 D-1 Irrigation Engineer
- 1 D-1 Project Analyst
- 2 D-1 Forestry Officers
- 1 D-1 Agricultural Officer
- 1 P-5 Irrigation Engineer
- 3 P-5 Agricultural Economists
- 3 P-5 Agricultural Officers
- 1 P-5 Animal Production Officer
- 1 P-5 Forestry Officer
- 4 P-5 Project Analysts
- 1 P-4 Agricultural Officer
- 1 P-4 Civil Engineer
- 1 P-3 Economist
- 1 P-3 Project Analyst

INVESTMENT SUPPORT PROGRAMME

INTERNATIONAL FUNDS SERVICE (IV)

- 1 D-1 Chief
- 1 D-1 Chief FAO/AFDB Desk
- 1 D-1 Senior Agricultural Officer
- 2 P-5 Project Analysts
- 1 P-5 Agricultural Officer
- 1 P-5 Irrigation Engineer
- 2 P-4 Project Analysts
- 1 P-4 Agricultural Officer
- 1 P-4 Economist
- 1 P-4 Irrigation Engineer
- 1 P-3 Economist

REGIONAL DEVELOPMENT BANKS SERVICE (V)

- 1 D-1 Chief
- 1 D-1 Senior Economist
- 4 P-5 Project Analysts
- 1 P-5 Agricultural Officer
- 1 P-5 Forestry Officer
- 2 P-5 Irrigation Engineers
- 1 P-4 Agricultural Officer
- 1 P-4 Project Analyst
- 1 P-3 Project Analyst

NATIONAL FUNDS AND DEVELOPMENT BANKS SERVICE (VI)

- 1 D-1 Chief
- 3 P-5 Project Analysts
- 1 P-5 Agricultural Officer
- 2 P-5 Fishery Officers
- 2 P-4 Project Analysts
- 1 P-4 Agricultural Officer
- 1 P-4 Economist
- 1 P-4 Agricultural Credit Officer
- 1 P-3 Economist
- 2 P-2 Project Analysts

REGIONAL AND LIAISON OFFICES AND JOINT DIVISIONS

Unit	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget
RAFR	9 201	0	681	9 882
JAFR	1 493	0	306	1 799
Sub-Total	10 694	0	987	11 681
RAPA	9 435	0	1 302	10 737
REUR	2 196	0	333	2 529
JEUR	1 516	0	364	1 880
Sub-Total	3 712	0	697	4 409
RLAC	9 836	0	889	10 725
JLAC	1 082	0	188	1 270
Sub-Total	10 918	0	1 077	11 995
RNEA	7 677	0	935	8 612
JNEA	904	0	119	1 023
Sub-Total	8 581	0	1 054	9 635
LGEN	659	0	100	759
LNOR	1 871	0	327	2 198
LUNO	1 439	0	252	1 691
TOTAL	47 309	0	5 796	53 105

* Increase (Decrease)

Changes in Posts (RP)

	<u>New Posts</u>	<u>Abolished Posts</u>
RAFR	Nil	G-5 Bilingual Clerk-Stenographer
RLAC	Nil	G-4 Cable Clerk G-4 Bilingual Stenographer
RNEA	G-7A Library Assistant G-7B Internal Services Supervisor G-6 Personnel Assistant 2 x G-5 Administrative Clerks G-5 Accounting Clerk G-5 Secretary/Typing Pool Supervisor 2 x G-4 Stenographer/Secretaries G-4 Accounting Clerk G-4 Registry Clerk G-4 Clerk-Telex/Telefax Operator G-4 Travel Clerk 3 x G-3 Clerk-Typists G-3 Receptionist G-3 Telephone Operator G-3 Driver G-2 Typist (E) G-2 Typist (A) 3 x G-2 Drivers 2 x G-1 Messengers G-1 Lift Operator	Nil
JNEA	Nil	P-3 Agricultural Economist

1988-89 and 1990-91 Divisional Summary by Budget Component (\$US 000's)

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Unit	Salaries & Common Staff Costs		Consultants	Contractual Services	Official Travel	Meetings	Operating Expenses	Publications and Documents	Computer Services	Other	TOTAL
	1988-89	1990-91									
RAFR	5 757	1 141	240	1 148	143	760	12	0	0	0	9 201
1990-91	6 336	1 141	257	1 148	149	836	15	0	0	0	9 882
JAFR	1 266	72	0	129	0	26	0	0	0	0	1 493
1990-91	1 580	52	0	105	0	59	0	3	0	0	1 799
RAPA	6 220	1 007	0	1 051	297	801	0	59	0	0	9 435
1990-91	7 382	1 087	0	1 098	253	848	0	69	0	0	10 737
REUR	1 154	33	81	422	202	78	207	19	0	0	2 196
1990-91	1 513	29	99	460	129	96	181	22	0	0	2 529
JEUR	1 419	0	42	42	0	8	0	5	0	0	1 516
1990-91	1 783	0	42	41	0	8	0	6	0	0	1 880
RLAC	6 930	493	758	726	65	864	0	0	0	0	9 836
1990-91	7 603	569	1 043	512	67	931	0	0	0	0	10 725
JLAC	791	0	216	64	0	8	0	3	0	0	1 082
1990-91	977	196	21	64	0	8	0	4	0	0	1 270
RNEA	4 911	684	715	575	137	159	486	10	0	0	7 677
1990-91	5 413	683	840	632	155	291	586	12	0	0	8 612
JNEA	607	164	27	77	0	27	0	2	0	0	904
1990-91	661	199	12	129	0	20	0	2	0	0	1 023
LGEN	466	0	0	19	0	174	0	0	0	0	659
1990-91	556	0	0	19	0	184	0	0	0	0	759
LNOR	1 139	0	0	20	0	712	0	0	0	0	1 871
1990-91	1 475	20	0	20	0	683	0	0	0	0	2 198
LUNO	950	0	0	34	0	455	0	0	0	0	1 439
1990-91	1 196	0	0	34	0	461	0	0	0	0	1 691
RO/JO	31 610	3 594	2 079	4 307	844	4 072	705	98	0	0	47 309
LO	36 475	3 976	2 314	4 262	753	4 425	782	118	0	0	53 105

RAPA - Bangkok

1 ADG Regional Representative
 1 D-1 Deputy Regional Representative
 1 P-4 Programming and Planning Officer
 1 P-4 Administrative Officer
 1 P-2 Translator
 1 P-4 Animal Production Officer (Dairy Development)
 1 P-5 Animal Production and Health Officer
 1 P-4 Animal Health Officer
 1 P-4 Water Development and Management Officer
 1 P-5 Soil Management and Fertilizer Use Officer
 1 P-4 Plant Protection Officer
 1 P-5 Plant Production and Protection Officer
 1 P-5 Agricultural Engineering and Agro-Industry Officer
 1 P-5 Farm Management Economist
 1 P-5 Economist (Food Security and Food Marketing)
 1 D-1 Senior Rural Development Officer
 1 P-4 Plant Production Officer (Commercial Crops)
 1 P-4 Home Economics and Social Programmes Officer
 1 P-4 Credit and Cooperatives Officer
 1 P-5 Food Policy and Nutrition Officer
 1 P-5 Agricultural Planning Economist
 1 P-4 Development Planning Officer
 1 P-3 Economist
 1 P-5 Statistician
 1 P-5 Fishery Officer
 1 P-4 Fishery Officer (Aquaculture)
 1 P-5 Forestry Officer
 1 P-4 Forest Resources Officer
 1 D-1 Small Farmers Development
 Communication Officer
 1 P-4 Information Officer

RAFR - Accra

1 ADG Regional Representative
 1 D-1 Deputy Regional Representative
 1 P-5 Special Adviser (Sahelian Zone)
 (DS: Ouagadougou)
 1 P-4 Programme Officer
 1 P-4 Administrative Officer
 1 P-4 Regional Officer (Science and Technology)
 1 P-5 Animal Production and Health Officer
 1 P-4 Animal Health Officer (Trypanosomiasis)
 1 P-5 Soil Resources Officer
 1 P-4 Land and Water Development Officer
 1 P-5 Plant Production and Protection Officer
 1 P-5 Senior Crop Protection Officer
 1 P-4 Desert Locust and Migratory Pests Officer
 (DS: Algiers)
 1 P-4 Agro-Industries Officer
 1 P-4 Marketing and Credit Officer
 1 P-5 Agricultural Services Officer (Post-Harvest
 and Food Storage)
 1 P-4 Agricultural Officer (Education and Extension)
 1 P-4 Land Tenure and Settlement Officer
 1 P-4 Regional Officer (Women in Development)
 1 P-4 National and Regional Institutions Officer
 (Agrarian Reform)
 1 P-5 Food and Nutrition Officer
 1 P-5 Agricultural Planning Economist
 1 P-4 Statistician
 1 P-5 Fishery Officer
 1 P-4 Fishery Officer
 1 P-5 Forestry Officer
 1 P-4 Cooperation and Liaison Officer
 1 P-4 Information Officer

REUR - Rome

1 D-2 Regional Representative
 1 D-1 Assistant to Regional Representative (UNDP/S)
 1 D-1 Economist
 1 P-5 Regional Officer
 1 P-5 Regional Officer (Energy)
 1 P-2 Administrative Officer

JAFR - Addis Ababa

1 D-1 Director
 1 P-5 Senior Agricultural Economist
 1 P-4 Project Analyst
 1 P-4 Marketing Economist
 1 P-4 Rural Development Officer
 1 P-4 Agricultural Economist (Planning)
 1 P-4 Statistician
 1 P-3 Economist
 1 P-2 Administrative Officer

JEUR - Geneva

1 D-1 Director
 1 P-3 Food Standards Officer
 1 P-5 Senior Economist
 2 P-4 Economists
 1 P-5 Senior Forestry Officer
 1 P-3 Forestry Officer

ROs/JDs/LOs

RLAC - Santiago

- 1 ADG Regional Representative
- 1 D-1 Deputy Regional Representative
- 1 P-4 Development Planning Officer
- 1 P-4 Administrative Officer
- 1 P-1/P-2 Administrative Officer
- 1 P-5 Regional Officer (Science and Technology)
- 1 P-5 Animal Production and Health Officer
- 1 P-4 Animal Production Officer
- 1 P-5 Land and Water Development Officer
- 1 P-4 Plant Production and Protection Officer
- 1 P-4 Plant Protection Officer
- 1 P-5 Food Technology and Agro-Industries Officer
- 1 P-4 Marketing and Credit Officer
- 1 P-4 Agricultural Services Officer (Post-Harvest Food Losses)
- 1 P-4 Regional Officer (Farm Management and Production Structures)
- 1 P-5 Commodities Trade Officer
- 1 P-4 Commodities Officer
- 1 P-5 Agrarian Reform and Rural Development Officer
- 1 P-4 Agricultural Education and Extension Officer
- 1 P-4 Home Economics and Social Programmes Officer
- 1 P-4 Food and Nutrition Officer
- 1 P-5 Senior Programme Officer
- 1 P-4 Economist (Integration and Investment)
- 1 P-5 Fishery Officer
- 1 P-4 Fishery Officer (DS: Port of Spain)
- 1 P-5 Forestry Officer
- 1 P-4 Forestry Officer
- 1 P-5 Information Officer
- 1 P-4 Plant Protection Officer (DS: Port of Spain)
- 1 P-4 Information Officer (DS: Rio de Janeiro)

RNEA - Rome

- 1 ADG Regional Representative
- 1 D-1 Deputy Regional Representative
- 1 P-4 Programme Officer
- 1 P-5 Information and Communications Adviser
- 1 P-4 Administrative Officer
- 1 P-3 Translator/Reviser
- 1 P-5 Land and Water Development Officer
- 1 P-5 Plant Production and Protection Officer
- 1 P-4 Plant Protection Officer
- 1 P-4 Range Management and Fodder Production Officer
- 1 P-5 Animal Production and Health Officer
- 1 P-5 Credit and Marketing Officer
- 1 P-5 Agro-Industries Officer
- 1 P-5 Regional Officer (Science and Technology)
- 1 P-5 Agricultural Planning Economist
- 1 P-4 Agricultural Economist
- 1 P-5 Statistician
- 1 P-4 Rural Development Officer (Agrarian Reform and Cooperatives)
- 1 P-4 Agricultural Extension Education and Training Officer
- 1 P-5 Home Economics and Social Programmes Officer
- 1 P-4 Nutrition Officer
- 1 P-5 Fishery Officer
- 1 P-5 Forestry Officer

JLAC - Santiago

- 1 D-1 Director
- 1 P-5 Agricultural Economist (Training)
- 1 P-4 Agricultural Economist
- 2 P-4 Economists

JNEA - Baghdad

- 1 D-1 Director
- 1 P-5 Senior Agricultural Economist
- 1 P-4 Economist (Agricultural Research Planning)

United Nations Liaison

LUNO - New York

- 1 D-2 Representative at the United Nations
- 1 P-5 Senior Liaison Officer
- 1 P-4 Liaison Officer
- 1 P-3 Liaison and Administrative Officer

LGEM - Geneva

- 1 P-4 Economist

LNOR - Washington

- 1 D-2 Director
- 1 P-5 Senior Economist
- 1 P-4 Executive Officer

GENERAL AFFAIRS AND INFORMATION DEPARTMENT

Unit	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget
GID	1 595	0	382	1 977
GIC	14 275	(144)	2 736	16 867
GII	10 230	0	1 969	12 199
GIL	9 380	201	1 780	11 361
GIP 1/	3 824	0	803	4 627
TOTAL	39 304	57	7 670	47 031

1/ Only undistributed Publications and Documents costs. The following represents the total funds managed by GIP, which include Publications and Documents costs budgeted under user-Divisions.

GIP	32 940	(322)	6 838	39 456
-----	--------	-------	-------	--------

* Increase (Decrease)

<u>Changes in Posts (RP)</u>	
<u>New Posts</u>	<u>Abolished Posts</u>
GIC Nil	P-4 Protocol Officer
GIL P-2 Documentation Officer (Subject Specialist) P-2 Information Systems Officer (AGRIS/CARIS)	G-7 Documentation Assistant G-4 Library Clerk
GIP Nil	G-5 Proofreader (Spanish) G-3 Binding and Finishing Operator G-3 Correspondence Clerk (Arabic)

1988-89 and 1990-91 Divisional Summary by Budget Component (\$US 000's)

Unit	Salaries & Common Staff Costs		Consultants	Contractual Services	Official Travel	Meetings	Operating Expenses	Publications and Documents	Computer Services	Other	TOTAL
	1988-89	1990-91									
GID	1 497	1 873	0	15	28	0	47	8	0	0	1 595
			0	16	28	0	50	10	0	0	1 977
GIC	7 076	8 386	0	74	739	0	409	5 977	0	0	14 275
			0	79	739	0	433	7 230	0	0	16 867
GII	6 507	8 172	149	1 152	324	0	470	1 628	0	0	10 230
			169	980	439	0	867	1 572	0	0	12 199
GIL	5 255	6 632	18	1 923	269	42	588	776	509	0	9 380
			18	2 298	270	30	664	991	458	0	11 361
GIP	0	0	0	0	0	0	0	3 824	0	0	3 824
1/	0	0	0	0	0	0	0	4 627	0	0	4 627
GI	20 335	25 063	167	3 164	1 360	42	1 514	12 213	509	0	39 304
DEPT			187	3 373	1 476	30	2 014	14 430	458	0	47 031

1/ Only undistributed Publications and Documents costs. The following represents the total funds managed by GIP, which includes Publications and Documents costs budgeted under user-Divisions.

GIP	19 621	26 184	0	4 340	0	0	8 979	0	0	0	32 940
			0	4 572	0	0	8 700	0	0	0	39 456

Distribution of Publications and Documents Costs by Organizational Unit

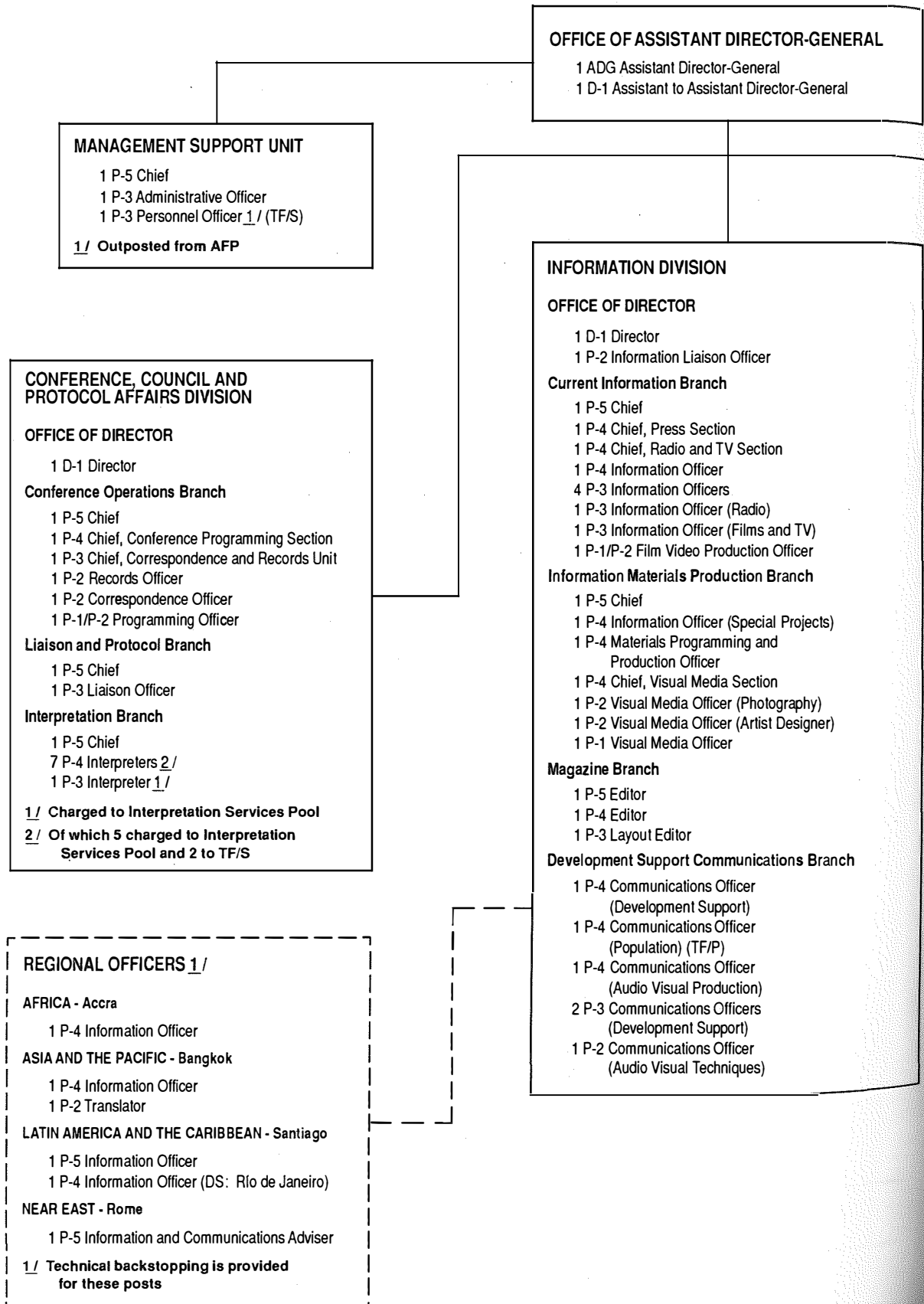
(US\$ 000)

Unit	1988-89 Approved Budget	1990-91 Proposed Budget	Increase or Decrease of 1990-91 over 1988-89
DG	208	227	19
PBE	59	71	12
AUD	2	2	0
LEG	396	433	37
IAA	25	30	5
AGD	70	91	21
AGA	1 154	1 658	504
AGE	130	151	21
AGL	766	925	159
AGO	28	34	6
AGP	1 320	1 527	207
AGS	542	801	259
AGR	116	152	36
ESD	116	144	28
ESC	2 444	3 005	561
ESH	1 490	1 637	147
ESN	1 958	2 317	359
ESP	712	954	242
ESS	1 263	1 525	262
FI	3 494	3 961	467
FO	2 011	2 561	550
DDD	24	7	(17)
DDF	343	424	81
DDC	91	61	(30)
DDA	162	196	34
GID	8	10	2
GIC	5 977	7 230	1 253
GII	1 628	1 572	(56)
GIL	776	991	215
GIP	3 824	4 627	803
AFD	2	2	0
AFP	754	912	158
AFF	214	302	88
AFC	11	13	2
AFS	117	121	4
RAFR	12	15	3
REUR	207	181	(26)
RNEA	486	586	100
TOTAL	32 940	39 456	6 516
FORMS 1/	800	700	(100)
GRAND TOTAL	33 740	40 156	6 416

1/ Included in budgets of user-Divisions under "Operating Expenses".

PUBLICATIONS REVOLVING FUND - 1990-91

<u>ESTIMATED INCOME</u>	<u>US\$</u>	<u>ESTIMATED EXPENDITURES</u>	<u>US\$</u>
Brought forward from 1988-89		To Miscellaneous Income 1990-91	50 000
(a) for credit to Miscellaneous Income in 1990-91	10 000	Cost of Reprints	200 000
(b) as capital in Fund	10 000	Sales promotion and handling, catalogues, leaflets, exhibits, fairs, etc.	295 000
Sales of publications in 1990 and 1991	2 050 000	Personnel services	1 505 000
		2 x Publications Promotion Officer P-2	
		1 x Bookshop Attendant G-5	
		1 x Clerk G-5	
		3 x Clerk G-4	
		6 x Clerk G-3	
		1 x Photo-Technician G-3	
		5 x Clerk G-2	
		Carried forward to 1992-93	
		(a) for credit to Miscellaneous Income	10 000
		(b) as capital in Fund	10 000
<u>TOTAL</u>	<u>2 070 000</u>	<u>TOTAL</u>	<u>2 070 000</u>



LIBRARY AND DOCUMENTATION SYSTEMS DIVISION

OFFICE OF DIRECTOR

1 D-1 Director

Systems and Projects Development Branch

1 P-5 Chief (TF/S)
1 P-5 Senior Information Systems Officer (AGRIS)
1 P-4 Information Systems Officer (CARIS)
1 P-4 Information Systems Officer (AGRIS) (TF/S)
1 P-4 Information Systems Officer (Methodology and Training)
1 P-4 Field Operations Officer (TF/S)
1 P-3 Information Systems Officer (AGRIS)
1 P-2 Information Systems Officer (AGRIS)
1 P-1/P-2 Information Systems Officer (AGRIS/CARIS)
1 P-1/P-2 Documentation Officer (Subject Specialist)

David Lubin Memorial Library

1 P-5 Chief Librarian
1 P-3 Chief, Selection, Acquisitions and Serials Section
1 P-4 Chief, Documentation Processing Section
1 P-4 Chief, Reference and Documentary Information Section
1 P-3 Documentation Systems Officer (TF/S)
1 P-2 Documentation Officer (Classification and Indexing)
1 P-1/P-2 Documentation Officer (Classification and Indexing)
1 P-1/P-2 Librarian (Cataloguing)
1 P-1/P-2 Librarian (Reference)
1 P-1/P-2 Librarian (Nutrition Branch Library)
1 P-1/P-2 Librarian (Fisheries Branch Library)

PUBLICATIONS DIVISION

OFFICE OF DIRECTOR

1 D-2 Director
1 P-4 Chief, Programming and Processing Control Section

TRANSLATION SERVICE

1 D-1 Chief

Terminology and Reference Section

1 P-3 Chief
1 P-1 Terminology Officer

Arabic Translation Group

2 P-5 Senior Revisers (1 WFP/S)
1 P-4 Reviser/Editor
2 P-4 Revisers (1 TF/S)
7 P-3 Translator/Revisers (2 WFP/S; 1 UNDP/S)

Chinese Translation Group

1 D-1 Senior Reviser
3 P-4 Revisers
7 P-3 Translator/Revisers

English Translation Group

1 P-4 Reviser
2 P-3 Translator/Revisers

French Translation Group

3 P-5 Senior Revisers
8 P-4 Revisers (1 WFP/S)
10 P-3 Translator/Revisers (1 UNDP/S; 1 WFP/S;
2 extra-budgetary)

Spanish Translation Group

3 P-5 Senior Revisers
6 P-4 Revisers (1 WFP/S)
7 P-3 Translator/Revisers (2 extra-budgetary)

Editorial Branch

1 D-1 Chief
1 P-4 Chief, Editorial Section
4 P-3 Editors (1 UNDP/S)
1 P-3 Chief, External Printing Section
1 P-2 Chief, Graphics Section
7 P-1/P-2 Editors (1 TF/S)
1 P-1/P-2 Layout Editor

Production and Distribution Branch

1 P-5 Chief
1 P-4 Chief, Printing Section
1 P-3 Supervisor, Composition Unit
1 P-1 Supervisor, Internal Printing Unit
1 P-4 Chief, Distribution and Sales Section
4 P-2 Publications Promotion Officers (2 PRF)

ADMINISTRATION AND FINANCE DEPARTMENT

Unit	1988-89 Approved Budget	Programme Change *	Cost Increase	1990-91 Budget
AFD	432	0	99	531
AFF	8 231	0	1 744	9 975
AFC 1/	1 373	0	253	1 626
AFF	14 915	0	2 994	17 909
AFS	33 193	0	6 034	39 227
TOTAL	58 144	0	11 124	69 268

1/ Only undistributed Computer Services costs. The following represents the total funds managed by AFC, which include Computer Services costs budgeted under user-Division:

AFC	7 695	(589)	1 281	8 387
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* Increase (Decrease)

Changes in Posts (RP)	
New Posts	Abolished Posts
AFF Nil	G-3 Registry Clerk G-3 Clerk-Typist
AFC P-5 Corporate Systems Coordinator (Computer Pool)	Nil
AFS P-4 Contracts Officer	G-6 Security Assistant G-5 Assist. Superv., Transport Unit G-5 Chief Telephone Operator 2 x G-3 Senior Guards G-3 Lead Electrician G-2 Gardener 10 x G-1 Messengers 4 x G-1 Specialized Labourers

1988-89 and 1990-91 Divisional Summary by Budget Component (\$US 000's)

Unit	Salaries & Common Staff Costs		Contractual Services	Official Travel	Meetings	Operating Expenses	Publications and Documents		Computer Services	Other	TOTAL
AFD	1988-89	382	0	31	0	17	2		0	0	432
	1990-91	478	0	18	0	19	2		5	0	531
AFC	1988-89	496	215	0	16	50	11		365	220	1 373
1/	1990-91	646	197	0	16	53	13		431	270	1 626
AFF	1988-89	5 915	0	171	40	418	214		1 349	124	8 231
	1990-91	7 037	50	290	40	519	302		1 592	145	9 975
AFP	1988-89	10 223	50	1 312	107	346	754		658	1 465	14 915
	1990-91	12 799	50	1 403	107	367	912		776	1 495	17 909
AFS	1988-89	18 326	40	0	20	14 447	117		243	0	33 193
	1990-91	22 614	50	214	20	15 913	121		295	0	39 227
AF	1988-89	35 342	305	1 483	214	15 278	1 098		2 615	1 809	58 144
DEPT	1990-91	43 574	347	1 916	201	16 871	1 350		3 099	1 910	69 268

1/ Only undistributed Computer Services costs. The following represents the total funds managed by AFC, which includes Computer Services costs budgeted under user-Divisions.

AFC	1988-89	3 010	0	2 645	0	2 040	0		0	0	7 695
	1990-91	3 768	0	2 819	0	1 800	0		0	0	8 387

PERSONNEL DIVISION

OFFICE OF DIRECTOR

- 1 D-2 Director
- 1 P-5 Senior Personnel Officer (Staff Relations)

RECRUITMENT PLANNING AND STAFF DEVELOPMENT SERVICE

- 1 D-1 Chief
- 1 P-4 Personnel Officer

Central Recruitment

- 1 P-4 Recruitment Officer
- 1 P-3 Recruitment Officer (TF/S)
- 1 P-1/P-2 Personnel Officer

Personnel Policies and Standards

- 1 P-3 Personnel Officer
- 1 P-1/P-2 Personnel Officer

Staff Development Group

- 1 P-5 Senior Officer
- 2 P-4 Staff Development Officers
- 2 P-3 Staff Development Officers
- 1 P-4 Staff Development Officer (Languages)
- 1 P-2 Training Officer (Languages)

MEDICAL SERVICE

- 1 D-1 Chief
- 1 P-5 Senior Medical Officer (UNDP/S)
- 2 P-4 Medical Officers

ESTABLISHMENTS AND ENTITLEMENTS SERVICE

- 1 D-1 Chief
- 1 P-5 Senior Personnel Officer (TF/S) (Legal Matters)
- 1 P-1/P-2 Personnel Officer (Legal Matters)

Outposted Operations

- 1 P-5 Senior Personnel Officer (UNDP/S)
- 4 P-4 Personnel Officers (1 UNDP/S; 1 TF/S; 1 WFP/S)
- 1 P-3 Personnel Officer (TF/S)

Establishments Group

- 1 P-5 Senior Personnel Officer
- 2 P-4 Personnel Officers (Establishments)
- 2 P-3 Personnel Officers (Establishments)
- 2 P-1/P-2 Personnel Officers (Establishments)

Social Security Group

- 1 P-5 Senior Personnel Officer (Social Security)
- 1 P-4 Personnel Officer (Social Security)
- 1 P-3 Social Security Officer (WFP/S)
- 2 P-1/P-2 Social Security Officers

Central Professional Servicing

- 1 P-4 Personnel Officer (UNDP/S)
- 1 P-3 Personnel Officer

General Service Staff Servicing

- 1 P-4 Personnel Officer
- 2 P-3 Personnel Officers

Central Processing

- 1 P-3 Personnel Officer (Administration)

COMPUTER SERVICES CENTRE

OFFICE OF DIRECTOR

- 1 D-1 Director
- 1 P-5 Corporate Systems Coordinator
- 1 P-4 Administrative Applications/Programming Supervisor (FINSIS/PERSYS)
- 1 P-4 Management Information Systems Officer
- 1 P-4 Office Automation Officer
- 1 P-3 Analyst/Programmer (FINSYS/PERSYS)

COMPUTER OPERATIONS BRANCH

- 1 P-5 Chief

System Software Section

- 1 P-4 File Management Systems Officer (WFP/S)
- 1 P-3 Analyst Programmer (Teleprocessing) (TF/S)
- 1 P-2 Analyst Programmer
- 1 P-1/P-2 Analyst Programmer (TF/S)

Operations Section

- 1 P-4 Chief
- 1 P-2 Analyst/Programmer (UNDP/S) Financial Services

COMPUTER SYSTEMS BRANCH

- 1 P-5 Chief
- 1 P-3 Analyst/Programmer

Technical Systems Section

- 1 P-4 Chief
- 1 P-4 Data Base Administrator (TF/S)
- 2 P-3 Analyst/Programmers
- 1 P-2 Assistant Data Base Administrator (TF/S)

General Support Systems Section

- 1 P-4 Chief
- 3 P-3 Analyst/Programmers (2 UNDP/S)
- 1 P-1/P-2 Systems Analyst (Office Automation) (WFP/S)
- 1 P-1/P-2 Analyst/Programmer

AF

OFFICE OF ASSISTANT DIRECTOR-GENERAL

1 ADG Assistant Director-General
1 D-1 Assistant to ADG (TF/S)

Credit Union 1 /

1 P-4 Credit Union Manager
1 P-1 Accountant

1 / Self-financing

FINANCIAL SERVICES DIVISION

OFFICE OF DIRECTOR

1 D-2 Director
1 P-5 Senior Finance Officer (Systems Manager)
1 P-1/P-2 Administrative Officer

Outposted Operations

1 P-5 Senior Officer (UNDP/S)
2 P-4 Finance Officers (1 UNDP/S; 1 TF/S)

PAYMENTS AUTHORIZATION BRANCH

1 P-5 Chief

Travel

1 P-3 Finance Officer
1 P-1/P-2 Accountant

Disbursements Authorization

1 P-3 Finance Officer (WFP/S)

Payroll

1 P-4 Finance Officer
1 P-2 Accountant

ACCOUNTS BRANCH

1 P-5 Chief

Headquarters Programmes Section

1 P-4 Chief
3 P-3 Accountants (1WFP/S; 1 UNDP/S)
1 P-1/P-2 Accountant (UNDP/S)

Field Programmes Section

1 P-4 Chief
2 P-3 Accountants (1 TF/S)
1 P-2 Accountant (TF/S)
3 P-1/P-2 Accountants (1 WFP/S)

TREASURY BRANCH

1 P-5 Treasurer
1 P-4 Investment Officer (TF/S)
1 P-4 Finance Officer (UNDP/S)
1 P-3 Treasury Officer
1 P-2 Accountant (WFP/S)
1 P-1/P-2 Accountant (UNDP/S)
1 P-1/P-2 Treasury Officer (TF/S)

ADMINISTRATIVE SERVICES DIVISION

OFFICE OF DIRECTOR

1 D-2 Director (UNDP/S)
1 P-5 Chief, Security Services
1 P-2 Security Officer
1 P-4 Executive Officer
1 P-4 Administrative Services Officer (UNDP/S)
1 P-4 Field Liaison Officer (Administration) (UNDP/S)
1 P-3 Field Liaison Officer (Administration) (TF/S)
1 P-2 Accountant (TF/S)

BUILDINGS MANAGEMENT AND SERVICES BRANCH

1 P-5 Chief
2 P-3 Maintenance Officers (1 UNDP/S)

COMMISSARY 1 /

1 P-4 Commissary Manager
1 P-3 Assistant Commissary Manager

1 / Self-financing

CONTRACTS BRANCH

1 P-5 Chief (UNDP/S)
2 P-4 Contracts Officers
1 P-1/P-2 Contracts Officer

PURCHASING AND CONTROL BRANCH

1 P-5 Chief
3 P-4 Purchasing Officers (2 UNDP/S; 1 TF/S)
1 P-3 Chief, Processing and Control Unit (WFP/S)
1 P-3 Procurement Systems Officer (UNDP/S)
1 P-2 Processing Officer

**COMMUNICATIONS AND CENTRAL
RECORDS BRANCH**

1 P-5 Chief
1 P-3 Chief, Records and Archives Unit
1 P-2 Communications Officer (WFP/S)

Distribution of Computer Services Costs by Organizational Unit (US\$ 000)

Unit	1988-89 Approved Budget	1990-91 Proposed Budget	Increase or Decrease of 1990-91 over 1988-89
PBE	241	230	(11)
AUD	31	13	(18)
IAA	2	2	0
AGD	36	43	7
AGA	79	104	25
AGL	10	18	8
AGP	317	325	8
AGS	38	29	(9)
AGR	24	28	4
ESD	114	99	(15)
ESH	100	71	(29)
ESN	267	357	90
ESC	348	356	8
ESP	254	251	(3)
ESS	1 171	1 364	193
FI	348	423	75
FO	434	366	(68)
DDF	314	314	0
DDC	345	319	(26)
GIL	509	458	(51)
AFD	0	5	5
AFS	243	295	52
AFF	1 349	1 592	243
AFC	365	431	66
AFP	658	776	118
JAFR	0	3	3
JEUR	5	6	1
JLAC	3	4	1
JNEA	2	2	0
RAPA	59	69	10
REUR	19	22	3
RNEA	10	12	2
TOTAL	7 695	8 387	692

ANNEX III

APPENDICES

APPENDIX A

FAO SALARY AND POST ADJUSTMENT SCHEDULES

TABLE A

SCHEDULE OF SALARIES FOR DIRECTOR AND PROFESSIONAL CATEGORIES

(in effect from 1 April 1988)

(in US Dollars per annum)

Category	Grade Level	First Step		Number of Steps	Maximum Step	
		Gross	Net <u>1/</u>		Gross	Net <u>1/</u>
Professional	P-1	22 175	D 17 936 S 16 899	10	30 832	D 23 458 S 21 979
	P-2	29 563	D 22 675 S 21 262	11	40 294	D 29 124 S 27 132
	P-3	37 193	D 27 294 S 25 476	13	52 187	D 35 997 S 33 332
	P-4	46 236	D 32 605 S 30 279	12	61 741	D 41 308 S 38 105
	P-5	58 072	D 39 290 S 36 293	10	71 000	D 46 340 S 42 625
Director	D-1	65 668	D 43 461 S 40 039	7	76 457	D 49 287 S 45 272
	D-2	76 677	D 49 406 S 45 378	4	82 550	D 52 552 S 48 155
	ADG	95 100	D 59 203 S 53 891	1	-	-

1/ Net of staff assessment; D = Dependency rate, S = Single rate.
Amounts rounded to the nearest dollar.

NOTE: These rates are increased or decreased depending on locality and cost of living on the basis of "plus" or "minus" post adjustments (see Tables B and C).

TABLE B

SCHEDULE OF POST ADJUSTMENTS (ADDITIONS) PER INDEX POINT (IN US DOLLARS P.A.)

(in effect from 1 January 1985)

For areas where cost of living is higher than at the base ^{1/}

Category	Grade Level	First Step		Number of Steps	Maximum Step	
		Dependency Rate ^{2/}	Single Rate ^{3/}		Dependency Rate ^{2/}	Single Rate ^{3/}
Professional	P-1	159.75	150.53	10	206.99	193.92
	P-2	200.14	187.66	11	256.25	238.70
	P-3	240.91	224.85	13	313.84	290.59
	P-4	286.82	266.32	12	354.70	327.16
	P-5	341.73	315.57	10	387.31	356.37
Director	D-1	370.99	341.81	7	407.19	374.11
	D-2	406.81	373.72	4	433.32	397.08
	ADG	488.36	444.33	1	-	-

^{1/} The amount payable is determined by the sum derived from this schedule multiplied by the number of index points over the base 100, of the corresponding post adjustment class (see table D). For instance in a class 4 duty station, a P-4 first step with a dependant receives US\$ 286.82 x (122-100) = US\$ 6 310.04 per annum or US\$ 525.84 per month as post adjustment.

^{2/} Dependency rates of post adjustment applicable to staff members with a dependent spouse or child.

^{3/} Single rates of post adjustment applicable to staff members with no dependent spouse or child.

APPENDIX A
(Cont.d)

TABLE C

SCHEDULE OF POST ADJUSTMENTS (DEDUCTIONS) PER INDEX POINT (IN US DOLLARS P.A.)

(in effect from 1 January 1985)

For areas where cost of living is lower than at the base 1/

Category	Grade Level	First Step		Number of Steps	Maximum Step	
		Dependency Rate <u>2/</u>	Single Rate <u>3/</u>		Dependency Rate <u>2/</u>	Single Rate <u>3/</u>
Professional	P-1	143.42	135.14	10	187.65	175.80
	P-2	181.20	169.90	11	232.99	217.03
	P-3	218.35	203.79	13	287.96	266.63
	P-4	260.83	242.19	12	330.31	304.66
	P-5	314.23	290.18	10	370.28	340.70
Director	D-1	347.50	320.16	7	393.75	361.76
	D-2	394.53	362.44	4	420.29	385.14
	ADG	473.62	430.92	1	-	-

1/ The amount to be deducted from base salary is determined by the sum derived from this schedule multiplied by the number of index points below the base 100, of the corresponding post adjustment class (see table D). For instance in a class A duty station, a P-4 first step with a dependant has a deduction from the base salary of $US\$ 260.83 \times (100 - 95) = US\$ 1\ 304.15$ per annum or US\$ 108.68 per month.

2/ Dependency rates of post adjustment applicable to staff members with a dependent spouse or child.

3/ Single rates of post adjustment applicable to staff members with no dependent spouse or child.

APPENDIX A
(Cont.d)

TABLE D

CLASSES OF POST ADJUSTMENT WITH CORRESPONDING INDEX LEVELS

<u>Class</u>	<u>Levels of the Index</u>	<u>Points over preceding class</u>	<u>Cumulative points deductible</u>
D	80	-	-20)
C	85	5	-15) <u>1/</u>
B	90	5	-10)
A	95	5	- 5)
			Cumulative points payable
0	100	5	0
1	105	5	5
2	110	5	10
3	116	6	16
4	122	6	22
5	128	6	28
6	134	6	34
7	141	7	41
8	148	7	48
9	155	7	55
10	163	8	63
11	171	8	71
12	180	9	80
13	189	9	89
14	198	9	98
15	208	10	108

Each additional point on the index corresponds to an additional point shown against the class as /+x. Thus, index 123 corresponds to class 4/+1, index 124 to class 4/+2, index 125 to class 4/+3, index 129 to class 5/+1, index 133 to class 5/+5, etc. These additional points represent fractional adjustments that may be paid as a result of currency fluctuations.

1/ Effective 1 January 1988, the floor for post adjustment classifications is Class A, multiplier minus 5. However, Classes B, C and D are used for some duty stations located in the Eastern Europe.

Appendix B

ESTABLISHMENT, GRADING AND CODIFICATION OF POSTS

ESTABLISHED POSTS BY GRADE AND UNIT: AS OF : JANUARY : 1989

[illegible]

* Posts of the FAO/World Bank Cooperative Programme and of the FAO/WHO Food Standards Programme are excluded (see Table C) in view of the cost-sharing agreements, under which FAO appoints all personnel but pays only its own share of their costs.

* Number as of 1 June 1989.

* Number as of 1 June 1989.

* Number as of 1 June 1989.

(ii) CODIFICATION OF ABOVE POSTS

Professional and above	C	7	-	8	12	3	11	3	8	-	13	1	13	6	8	24	9	-	2	12	-	43	6	-	1	7	7	19	-	1	6	5	2	-	
	D	37	3	27	23	4	33	11	24	6	39	25	28	22	45	31	1	17	32	1	77	19	4	10	9	21	57	1	36	11	9	-	698		
	N	10	-	-	-	2	-	-	-	-	-	-	-	-	2	2	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	143		
	M	-	-	-	1	-	1	1	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	7		
	Total	54	3	35	36	7	47	15	32	6	52	26	41	34	30	71	42	1	19	46	1	124	25	4	11	16	29	76	1	37	17	18	11	143	1 107
General Service	C	30	4	19	22	-	30	10	14	7	44	20	33	32	56	75	48	2	3	14	5	150	4	7	22	42	26	124	-	47	35	10	169	6 110	
	D	7	2	5	2	-	8	7	3	1	11	5	6	2	5	13	4	-	7	10	-	25	-	3	3	-	7	31	-	12	3	6	92	-	530
	N	13	-	-	-	2	-	1	-	-	-	-	-	-	-	-	-	-	2	3	2	-	8	-	-	-	-	1	2	4	2	-	1	596	
	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	
	Total	50	6	24	24	-	40	19	17	8	55	35	39	34	61	88	52	4	13	26	5	183	4	10	25	42	34	156	2	65	40	18	262	604 2 031	
GRAND TOTAL	104	9	59	60	7	57	34	48	14	107	51	60	68	91	159	94	5	32	72	6	307	29	14	36	58	62	272	3	160	57	32	273	747	3 138	

C = Continuing.

D = Continuing to be filled on a fixed-term basis.

5150d man = New posts.

ESTABLISHMENT, GRADING AND CODIFICATION OF POSTS
A. REGULAR PROGRAMME (Cont'd)

(iii) PROPOSED CHANGES FOR 1990-91 (excluding upgradings)

Category	Grade Level	DDG	AGA	AGL	AGE	AGP	AGR	AGS	ESD	ESC	ESN *	ESH	ESP	ESS	FI	FO	DDD	DDF	DDC *	DDA	Regional and Liaison Offices	Joint Agric. Div. with UN Econ. Com.	GID	GIC	GIL	GII	GIP	AFD	AFP	AFF	AFC	AFS	FAORs	TOTAL		
Director-General Deputy Director-General Assistant Director-General Director	DDG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	D-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	D-1	-	-	-	-	-	-	-	+1	-	-	-	-	-	-	+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+2		
	P-5	+1	-	+2	-	+2	+2	-	+1	-	-	-	-	-	-	+1	+1	-	+1	-	-	-	-	-	-	-	-	-	-	-	+1	-	+11	-		
	P-4	-	-	-	-	-	+1	-	-	-	-	+2	+1	-	-	-1	+3	-	-1	-	-	-	-	-	-	-	-	-	-	-	-	+6	-	-		
Professional	P-3	-	-	-	-	-	-	-	-	-	-	-	-	-	+1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+2	-	-	-	-	-	-	-	-	-	-	
	P-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Total	+1	-	+1	-	+2	+3	+1	+2	-	-	+2	+1	-	-	+1	+5	-	-1	-	-	-	-	-1	+2	-	-	-	-	-	+1	+1	-	+19	-	
	General Service	G-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+2	-	-	-	-1	-	-	-	-	-	-	-	-	-	+1
G-6		-1	-	-	-	-	-	-	-	-	-	+1	-1	-1	-1	-	-	-	-	-	-	+1	-	-	-	-	-	-	-	-	-	-1	-	-3	-	
G-5		-	-	-	-	-	-	-	-	-	-	-	-1	-	-	-1	-	-	-	-	+3	-	-	-	-	-	-	-	-	-	-	-2	-	-2	-	
G-4		-	-	-	-	-1	+1	-	-	-2	-1	-3	-	-1	-4	-2	-	-	-	-	+4	-	-	-	-1	-	-	-	-	-	-	-	-	-10	-	
G-3		-1	-	-3	-	-4	-	-	-	-	-1	-1	-1	-1	-	-	-	-	-	-	+6	-	-	-	-2	-	-	-	-	-	-3	-	-13	-		
G-2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+5	-	-	-	-	-	-	-	-	-	-	-1	+3	-		
Total	-2	-	-3	-	-	-5	+1	-	-	-2	-2	-3	-3	-3	-6	-3	-	-	-	-	+24	-	-	-2	-	-3	-	-	-2	-	-21	-	-	-35	-	
	GRAND TOTAL	-1	-	-4	+1	-	-3	+4	+1	+2	-2	-1	-2	-3	-5	+2	-	-1	-	-	-	+24	-1	-	-1	-	-3	-	-	-2	+1	-20	-	-	-16	-

* Posts of the FAO/World Bank Cooperative Programme and of the Joint FAO/WHO Food Standards Programme are excluded (see Table C), in view of the cost-sharing agreement under which FAO appoints all personnel but pays only its own share of their costs.

Appendix B
(Cont'd)

ESTABLISHMENT, GRADING AND CODIFICATION OF POSTS
A. REGULAR PROGRAMME (Cont'd)

(iv) ESTABLISHED POSTS BY GRADE AND UNIT AS OF 1 JANUARY 1990 (excluding upgrades)

Category	ODS	AGA	HGL	AGE	AGR	AGS	ESD	ESN	ESP	ESS	F1	FO	DD	DDF	DDC	ODA	Liaison and Regional Offices	Joint UNCT, Div. and Econ. Com.	G10	G11	G12	G13	G14	G15	G16	G17	G18	G19	G20	G21	G22	G23	G24	G25	G26	G27	G28	G29	G30	G31	G32	G33	G34	G35	G36	G37	G38	G39	G40	G41	G42	G43	G44	G45	G46	G47	G48	G49	G50	G51	G52	G53	G54	G55	G56	G57	G58	G59	G60	G61	G62	G63	G64	G65	G66	G67	G68	G69	G70	G71	G72	G73	G74	G75	G76	G77	G78	G79	G80	G81	G82	G83	G84	G85	G86	G87	G88	G89	G90	G91	G92	G93	G94	G95	G96	G97	G98	G99	G100	G101	G102	G103	G104	G105	G106	G107	G108	G109	G110	G111	G112	G113	G114	G115	G116	G117	G118	G119	G120	G121	G122	G123	G124	G125	G126	G127	G128	G129	G130	G131	G132	G133	G134	G135	G136	G137	G138	G139	G140	G141	G142	G143	G144	G145	G146	G147	G148	G149	G150	G151	G152	G153	G154	G155	G156	G157	G158	G159	G160	G161	G162	G163	G164	G165	G166	G167	G168	G169	G170	G171	G172	G173	G174	G175	G176	G177	G178	G179	G180	G181	G182	G183	G184	G185	G186	G187	G188	G189	G190	G191	G192	G193	G194	G195	G196	G197	G198	G199	G200	G201	G202	G203	G204	G205	G206	G207	G208	G209	G210	G211	G212	G213	G214	G215	G216	G217	G218	G219	G220	G221	G222	G223	G224	G225	G226	G227	G228	G229	G230	G231	G232	G233	G234	G235	G236	G237	G238	G239	G240	G241	G242	G243	G244	G245	G246	G247	G248	G249	G250	G251	G252	G253	G254	G255	G256	G257	G258	G259	G260	G261	G262	G263	G264	G265	G266	G267	G268	G269	G270	G271	G272	G273	G274	G275	G276	G277	G278	G279	G280	G281	G282	G283	G284	G285	G286	G287	G288	G289	G290	G291	G292	G293	G294	G295	G296	G297	G298	G299	G300	G301	G302	G303	G304	G305	G306	G307	G308	G309	G310	G311	G312	G313	G314	G315	G316	G317	G318	G319	G320	G321	G322	G323	G324	G325	G326	G327	G328	G329	G330	G331	G332	G333	G334	G335	G336	G337	G338	G339	G340	G341	G342	G343	G344	G345	G346	G347	G348	G349	G350	G351	G352	G353	G354	G355	G356	G357	G358	G359	G360	G361	G362	G363	G364	G365	G366	G367	G368	G369	G370	G371	G372	G373	G374	G375	G376	G377	G378	G379	G380	G381	G382	G383	G384	G385	G386	G387	G388	G389	G390	G391	G392	G393	G394	G395	G396	G397	G398	G399	G400	G401	G402	G403	G404	G405	G406	G407	G408	G409	G410	G411	G412	G413	G414	G415	G416	G417	G418	G419	G420	G421	G422	G423	G424	G425	G426	G427	G428	G429	G430	G431	G432	G433	G434	G435	G436	G437	G438	G439	G440	G441	G442	G443	G444	G445	G446	G447	G448	G449	G450	G451	G452	G453	G454	G455	G456	G457	G458	G459	G460	G461	G462	G463	G464	G465	G466	G467	G468	G469	G470	G471	G472	G473	G474	G475	G476	G477	G478	G479	G480	G481	G482	G483	G484	G485	G486	G487	G488	G489	G490	G491	G492	G493	G494	G495	G496	G497	G498	G499	G500	G501	G502	G503	G504	G505	G506	G507	G508	G509	G510	G511	G512	G513	G514	G515	G516	G517	G518	G519	G520	G521	G522	G523	G524	G525	G526	G527	G528	G529	G530	G531	G532	G533	G534	G535	G536	G537	G538	G539	G540	G541	G542	G543	G544	G545	G546	G547	G548	G549	G550	G551	G552	G553	G554	G555	G556	G557	G558	G559	G560	G561	G562	G563	G564	G565	G566	G567	G568	G569	G570	G571	G572	G573	G574	G575	G576	G577	G578	G579	G580	G581	G582	G583	G584	G585	G586	G587	G588	G589	G590	G591	G592	G593	G594	G595	G596	G597	G598	G599	G600	G601	G602	G603	G604	G605	G606	G607	G608	G609	G610	G611	G612	G613	G614	G615	G616	G617	G618	G619	G620	G621	G622	G623	G624	G625	G626	G627	G628	G629	G630	G631	G632	G633	G634	G635	G636	G637	G638	G639	G640	G641	G642	G643	G644	G645	G646	G647	G648	G649	G650	G651	G652	G653	G654	G655	G656	G657	G658	G659	G660	G661	G662	G663	G664	G665	G666	G667	G668	G669	G670	G671	G672	G673	G674	G675	G676	G677	G678	G679	G680	G681	G682	G683	G684	G685	G686	G687	G688	G689	G690	G691	G692	G693	G694	G695	G696	G697	G698	G699	G700	G701	G702	G703	G704	G705	G706	G707	G708	G709	G710	G711	G712	G713	G714	G715	G716	G717	G718	G719	G720	G721	G722	G723	G724	G725	G726	G727	G728	G729	G730	G731	G732	G733	G734	G735	G736	G737	G738	G739	G740	G741	G742	G743	G744	G745	G746	G747	G748	G749	G750	G751	G752	G753	G754	G755	G756	G757	G758	G759	G760	G761	G762	G763	G764	G765	G766	G767	G768	G769	G770	G771	G772	G773	G774	G775	G776	G777	G778	G779	G780	G781	G782	G783	G784	G785	G786	G787	G788	G789	G790	G791	G792	G793	G794	G795	G796	G797	G798	G799	G800	G801	G802	G803	G804	G805	G806	G807	G808	G809	G810	G811	G812	G813	G814	G815	G816	G817	G818	G819	G820	G821	G822	G823	G824	G825	G826	G827	G828	G829	G830	G831	G832	G833	G834	G835	G836	G837	G838	G839	G840	G841	G842	G843	G844	G845	G846	G847	G848	G849	G850	G851	G852	G853	G854	G855	G856	G857	G858	G859	G860	G861	G862	G863	G864	G865	G866	G867	G868	G869	G870	G871	G872	G873	G874	G875	G876	G877	G878	G879	G880	G881	G882	G883	G884	G885	G886	G887	G888	G889	G890	G891	G892	G893	G894	G895	G896	G897	G898	G899	G900	G901	G902	G903	G904	G905	G906	G907	G908	G909	G910	G911	G912	G913	G914	G915	G916	G917	G918	G919	G920	G921	G922	G923	G924	G925	G926	G927	G928	G929	G930	G931	G932	G933	G934	G935	G936	G937	G938	G939	G940	G941	G942	G943	G944	G945	G946	G947	G948	G949	G950	G951	G952	G953	G954	G955	G956	G957	G958	G959	G960	G961	G962	G963	G964	G965	G966	G967	G968	G969	G970	G971	G972	G973	G974	G975	G976	G977	G978	G979	G980	G981	G982	G983	G984	G985	G986	G987	G988	G989	G990	G991	G992	G993	G994	G995	G996	G997	G998	G999	G1000	G1001	G1002	G1003	G1004	G1005	G1006	G1007	G1008	G1009	G1010	G1011	G1012	G1013	G1014	G1015	G1016	G1017	G1018	G1019	G1020	G1021	G1022	G1023	G1024	G1025	G1026	G1027	G1028	G1029	G1030	G1031	G1032	G1033	G1034	G1035	G1036	G1037	G1038	G1039	G1040	G1041	G1042	G1043	G1044	G1045	G1046	G1047	G1048	G1049	G1050	G1051	G1052	G1053	G1054	G1055	G1056	G1057	G1058	G1059	G1060	G1061	G1062	G1063	G1064	G1065	G1066	G1067	G1068	G1069	G1070	G1071	G1072	G1073	G1074	G1075	G1076	G1077	G1078	G1079	G1080	G1081	G1082	G1083	G1084	G1085	G1086	G1087	G1088	G1089	G1090	G1091	G1092	G1093	G1094	G1095	G1096	G1097	G1098	G1099	G1100	G1101	G1102	G1103	G1104	G1105	G1106	G1107	G1108	G1109	G1110	G1111	G1112	G1113	G1114	G1115	G1116	G1117	G1118	G1119	G1120	G1121	G1122	G1123	G1124	G1125	G1126	G1127	G1128	G1129	G1130	G1131	G1132	G1133	G1134	G1135	G1136	G1137	G1138	G1139	G1140	G1141	G1142	G1143	G1144	G1145	G1146	G1147	G1148	G1149	G1150	G1151	G1152	G1153	G1154	G1155	G1156	G1157	G1158	G1159	G1160	G1161	G1162	G1163	G1164	G1165	G1166	G1167	G1168	G1169	G1170	G1171	G1172	G1173	G1174	G1175	G1176	G1177	G1178	G1179	G1180	G1181	G1182	G1183	G1184	G1185	G1186	G1187	G1188	G1189	G1190	G1191	G1192	G1193	G1194	G1195	G1196	G1197	G1198	G1199	G1200	G1201	G1202	G1203	G1204	G1205	G1206	G1207	G1208	G1209	G1210	G1211	G1212	G1213	G1214	G1215	G1216	G1217	G1218	G1219	G1220	G1221	G1222	G1223	G1224	G1225	G1226	G1227	G1228	G1229	G1230	G1231	G1232	G1233	G1234	G1235	G1236	G1237	G1238	G1239	G1240	G1241	G1242	G1243	G1244	G1245	G1246	G1247	G1248	G1249	G1250	G1251	G1252	G1253	G1254	G1255	G1256	G1257	G1258	G1259	G1260	G1261	G1262	G1263	G1264	G1265	G1266	G1267	G1268	G1269	G1270	G1271	G1272	G1273	G1274	G1275	G1276	G1277	G1278	G1279	G1280	G1281	G1282	G1283	G1284	G1285	G1286	G1287	G1288	G1289	G1290	G1291	G1292	G1293	G1294	G1295	G1296	G1297	G1298	G1299	G1300	G1301	G1302	G1303	G1304	G1305	G1306	G1307	G1308	G1309	G1310	G1311	G1312	G1313	G1314	G1315	G1316	G1317	G1318	G1319	G1320	G1321	G1322	G1323	G1324	G1325	G1326	G1327	G1328	G1329	G1330	G1331	G1332	G1333	G1334	G1335	G1336	G1337	G1338	G1339	G1340	G1341	G1342	G1343	G1344	G1345	G1346	G1347	G1348	G1349	G1350	G1351	G1352	G1353	G1354	G1355	G1356	G1357	G1358	G1359	G1360	G1361	G1362	G1363	G1364	G1365	G1366	G1367	G1368	G1369	G1370	G1371	G1372	G1373	G1374	G1375	G1376	G1377	G1378	G1379	G1380	G1381	G1382	G1383	G1384	G1385	G1386	G1387	G1388	G1389	G1390	G1391	G1392	G1393	G1394	G1395	G1396	G1397	G1398	G1399	G1400	G1401	G1402	G1403	G1404	G1405	G1406	G1407	G1408	G1409	G1410	G1411	G1412	G1413	G1414	G1415	G1416	G1417	G1418	G1419	G1420	G1421	G1422	G1423	G1424	G1425	G1426	G1427	G1428	G1429	G1430	G1431	G1432	G1433	G1434	G1435	G1436	G1437	G1438	G1439	G1440	G1441	G1442	G1443	G1444	G1445	G1446	G1447	G1448	G1449	G1450	G1451	G1452	G1453	G1454	G1455	G1456	G1457	G1458	G1459	G1460	G1461	G1462	G146
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Appendix B
(Cont'd)

ESTABLISHMENT, GRADING AND CODIFICATION OF POSTS
B. UNOP - TF - WFP - SUPPORT COSTS AS OF 1 JANUARY 1989

Category	Grade Level	ADG	ABR	AGL	AGE	ABP	ABR	AGE	ESD	ESC	ESH	ESP	ESS	F1	FD	DDF	DDC	DDA	Regional and Liaison Officers with Econ. Div.	G1D	G1C	G6L	G1P	AFD	APF	APF	APF	AFS	FAPG% TOTAL		
Director-General Deputy Director-General Assistant Director-General	DG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	D0G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	A0G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	D-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	D-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P-5	3	-	1	16	-	1	1	1	1	1	1	1	5	4	1	9	-	1	1	1	2	1	1	3	1	4	2	6	95	
Professional	P-4	4	1	41	3	1	1	1	2	2	2	2	3	4	3	13	2	2	2	2	2	2	3	4	4	3	4	3	4	54	
	P-3	6	-	15	-	-	-	-	2	2	2	2	2	4	2	3	4	4	4	4	4	1	6	3	4	3	4	3	4	54	
	P-2	6	-	8	-	-	-	-	1	1	1	1	2	1	2	2	2	2	2	2	2	1	6	3	4	3	4	3	4	54	
	P-1	-	-	-	-	-	-	-	-	-	-	-	-	2	1	2	-	-	-	-	-	1	-	-	6	4	2	-	-	27	
	Total	13	-	1	5	79	7	1	2	1	3	3	1	-	16	16	3	35	2	1	-	2	4	11	1	10	15	9	14	-	250
General Service	G-7	-	-	-	2	-	-	-	-	-	-	-	-	2	5	1	4	-	-	-	-	-	1	2	1	1	1	-	5	10	
	G-6	4	-	1	29	-	-	-	-	-	-	-	-	2	5	1	4	-	1	1	1	2	1	1	5	-	2	11	72		
	G-5	2	-	2	25	2	-	-	4	1	1	1	-	10	12	1	17	-	1	2	1	-	-	6	12	2	7	147	7		
	G-4	9	-	2	44	3	-	2	2	2	2	2	3	9	9	2	15	-	1	2	1	-	4	1	5	16	1	10	4	103	
	G-3	3	-	1	39	-	-	2	2	2	2	1	1	3	3	1	10	1	1	1	1	16	1	5	9	5	18	3	125		
	G-2	1	-	-	13	-	-	1	-	-	-	-	-	1	-	-	4	-	-	1	-	-	7	4	7	6	17	9	71	3	
Total	G-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	5	13	-	
	Total	19	-	5	6	204	-	5	9	1	3	2	4	-	23	29	5	50	1	3	-	3	1	3	28	1	22	48	15	60	44
SPAND TOTAL		32	-	6	11	283	-	6	1	11	2	6	5	3	-	41	45	8	85	-	3	3	7	3	39	2	32	63	24	74	44

SUMMARY BY FUND

[illegible]

Appendix B
(Cont'd)

ESTABLISHMENT, GRADING AND CODIFICATION OF POSTS
C. OTHER FUNDS* -- AS OF 1 JANUARY 1989

Category	Grade Level	DDG	AGD	AGA	ABL	AGD	AGE	AGP	AGR	AGS	ESD	ESC	ESN	ESH	ESP	ESS	F1	FO	DDD	DDF	DDC	DDA	Regional and Liaison Offices	Joint Agric. Div. with UN Econ. Com.	G1D	G1C	G1L	G1I	G1P	AFD	AFF	AFC	AFS	FAORS	TOTAL
Director-General Deputy Director-General Assistant Director-General	DDG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	ADG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	D-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	D-1	1	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	15
	P-5	1	-	1	-	1	-	-	3	-	2	-	-	1	1	-	-	-	-	-	39	-	-	-	-	-	-	-	-	-	-	-	-	-	49
Professional	P-4	3	-	-	-	5	-	-	2	-	-	-	4	1	-	-	1	-	1	-	7	-	-	-	5	1	-	-	1	-	-	1	-	-	32
	P-3	1	-	-	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	3	-	-	-	1	-	-	4	1	-	-	-	1	-	14	
	P-2	-	-	-	-	4	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	2	-	-	-	-	-	-	8	
	P-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Total		6	-	1	-	12	-	-	6	-	3	-	6	3	-	-	1	-	-	1	62	-	-	-	6	-	1	6	2	-	-	2	-	-
General Service	G-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2	-	-	-	-	-	1	-	-	-	-	-	-	-	4
	G-6	1	-	1	-	-	-	-	1	-	1	-	1	1	-	-	2	-	-	-	4	-	3	-	-	-	1	1	-	-	2	-	-	18	
	G-5	1	-	-	1	2	-	1	1	-	1	-	2	-	-	-	2	-	-	-	13	-	3	-	1	-	2	1	-	-	4	-	-	35	
	G-4	3	-	-	-	5	-	-	2	-	1	-	2	1	-	-	-	-	-	-	20	-	5	-	1	-	5	3	3	-	-	-	-	55	
	G-3	3	-	-	-	10	-	1	-	-	-	-	-	5	-	-	-	-	-	9	-	-	-	-	-	1	14	5	-	-	-	11	-	59	
	G-2	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	14	-	-	-	-	14	-	44	
Total		8	-	1	1	19	-	2	4	-	3	-	10	2	-	-	4	1	-	-	51	-	40	-	2	1	-	38	10	4	-	-	45	-	246
	GRAND TOTAL		14	-	2	1	31	-	2	10	-	6	-	16	5	-	5	1	-	1	113	-	40	-	-	8	1	1	44	12	4	-	-	47	-

* Number of posts by fund are:

- i) Joint FAO/WHO Food Standards Programme (ESN): 16
- ii) FAO/WHO (DDC): 112
- iii) Chilean Government Trust Fund (RLAC): 36
- iv) Publications Revolving Fund (GIP/GIL): 19
- v) HQ Trust Funds and other jointly financed posts: 106
- vi) Credit Union (AFD): 12
- vii) COFAC (ESH): 2
- viii) OSNG (DDG): 14
- ix) Commissary (AFS): 47

ESTABLISHMENT, GRADING AND CODIFICATION OF POSTS
D. SUPPORT -- ALL FUNDS (1989)

(1) ESTABLISHED POSTS BY CATEGORY, UNIT AND FUND AS OF 1 JANUARY 1989

Category	006	140	146	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	1222	1223	1224	1225	1226	1227	1228	1229	1230	1231	1232	1233	1234	1235	1236	1237	1238	1239	1240	1241	1242	1243	1244	1245	1246	1247	1248	1249	1250	1251	1252	1253	1254	1255	1256	1257	1258	1259	1260	1261	1262	1263	1264	1265	1266	1267	1268	1269	1270	1271	1272	1273	1274	1275	1276	1277	1278	1279	1280	1281	1282	1283	1284	1285	1286	1287	1288	1289	1290	1291	1292	1293	1294	1295	1296	1297	1298	1299	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	1321	1322	1323	1324	1325	1326	1327	1328	1329	1330	1331	1332	1333	1334	1335	1336	1337	1338	1339	1340	1341	1342	1343	1344	1345	1346	1347	1348	1349	1350	1351	1352	1353	1354	1355	1356	1357	1358	1359	1360	1361	1362	1363	1364	1365	1366	1367	1368	1369	1370	1371	1372	1373	1374	1375	1376	1377	1378	1379	1380	1381	1382	1383	1384	1385	1386	1387	1388	1389	1390	1391	1392	1393	1394	1395	1396	1397	1398	1399	1400	1401	1402	1403	1404	1405	1406	1407	1408	1409	1410	1411	1412	1413	1414	1415	1416	1417	1418	1419	1420	1421	1422	1423	1424	1425	1426	1427	1428	1429	1430	1431	1432	1433	1434	1435	1436	1437	1438	1439	1440	1441	1442	1443	1444	1445	1446	1447	1448	1449	1450	1451	1452	1453	1454	1455	1456	1457	1458	1459	1460	1461	1462	1463	1464	1465	1466	1467	1468	1469	1470	1471	1472	1473	1474	1475	1476	1477	1478	1479	1480	1481	1482	1483	1484	1485	1486	1487	1488	1489	1490	1491	1492	1493	1494	1495	1496	1497	1498	1499	1500	1501	1502	1503	1504	1505	1506	1507	1508	1509	1510	1511	1512	1513	1514	1515	1516	1517	1518	1519	1520	1521	1522	1523	1524	1525	1526	1527	1528	1529	1530	1531	1532	1533	1534	1535	1536	1537	1538	1539	1540	1541	1542	1543	1544	1545	1546	1547	1548	1549	1550	1551	1552	1553	1554	1555	1556	1557	1558	1559	1560	1561	1562	1563	1564	1565	1566	1567	1568	1569	1570	1571	1572	1573	1574	1575	1576	1577	1578	1579	1580	1581	1582	1583	1584	1585	1586	158
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Appendix C

UNITED NATIONS SYSTEM - STANDARD BUDGET TABLES

A. SUMMARY OF 1988-89 AND 1990-91 BUDGETS BY CHAPTER AND BY CCAQ OBJECT OF EXPENDITURE CATEGORIES (\$000)

		Salaries (Net)	Common		Travel on		Contractual Services	General Operating Expenses	Supplies and Materials	Acquisition		TOTAL
			Staff Costs	Official Business	Official Business	Contractual Services				Furniture & Equipment	Other Expenditures	
1. General Policy and Direction	1988-89	19 068	7 497	1 311	1 027	2 936	782	506	1 078	34 205		
	1990-91	24 286	8 895	1 311	1 330	2 757	877	424	1 228	41 108		
2. Technical and Economic Programmes	1988-89	126 076	49 391	17 285	25 753	8 799	2 753	2 275	1 134	233 466		
	1990-91	155 954	59 329	17 601	25 209	9 182	5 089	3 150	1 239	276 753		
3. Development Support Programmes	1988-89	41 039	17 277	4 974	1 228	11 104	435	450	570	77 077		
	1990-91	50 841	20 391	5 213	1 190	6 636	2 073	1 917	600	88 861		
4. Technical Cooperation Programme	1988-89	0	0	0	0	0	0	0	63 148	63 148		
	1990-91	0	0	0	0	0	0	0	67 767	67 767		
5. Support Services	1988-89	39 880	15 260	642	4 113	3 855	1 266	734	1 809	67 559		
	1990-91	47 975	20 157	754	4 901	3 200	1 847	791	1 910	81 535		
6. Common Services	1988-89	0	0	0	0	12 707	1 721	1 877	0	16 305		
	1990-91	0	0	0	0	11 404	3 216	3 216	0	17 836		
7. Contingencies	1988-89	0	0	0	0	0	0	0	600	600		
	1990-91	0	0	0	0	0	0	0	600	600		
GRAND TOTAL	1988-89	226 063	89 425	24 212	32 121	39 401	6 957	5 842	68 339	492 360		
	1990-91	279 056	108 772	24 879	32 630	33 179	13 102	9 498	73 344	574 460		

Note: This table which has been prepared in the standard presentation recommended by CCAQ provides a breakdown of the Programme of Work and Budget 1990-91 by chapter and CCAQ object of expenditure categories. For the breakdown by chapter the table is comparable to the table "Summary of Estimates by Chapter and Major Programme" at the beginning of the Programme Budget. The breakdown by object of expenditure is based on the table "Summary of 1988-89 and 1990-91 Budgets by Object of Expenditure and Unit", in Annex II, including in addition a distribution of the provision for Publications and Documents and Computer Services.

UNITED NATIONS SYSTEMS - STANDARD BUDGET TABLES

B. SUMMARY OF 1990-91 ESTIMATES BY CHAPTER AND BY MAIN SOURCE OF FUNDS (US\$' 000)

Chapter	Regular Programme	United Nations Sources	Other Sources	TOTAL
1. General Policy and Direction	41 108	1 609	3 323	46 040
2. Technical and Economic Programmes	276 753	382 921	323 292	982 966
3. Development Support Programmes	88 861	6 036	26 426	121 323
4. Technical Cooperation Programme	67 767	0	0	67 767
5. Support Services	81 535	8 512	17 800	107 847
6. Common Services	17 836	400	4 443	22 679
7. Contingencies	600	0	0	600
GRAND TOTAL	574 460	399 478	375 284	1 349 222

Appendix C
(Cont.d)

Note: This table has been prepared in the standard presentation recommended by CCAQ. For the breakdown by chapter the table is comparable to the table "Summary of Estimates by Chapter and Major Programme" at the beginning of the Programme Budget, but in addition provides an indication of the extra-budgetary resources.

ABBREVIATIONS

HEADQUARTERS

AF	-	ADMINISTRATION AND FINANCE DEPARTMENT
AFC	-	COMPUTER SERVICES CENTRE
AFD	-	OFFICE OF ASSISTANT DIRECTOR-GENERAL (AF)
AFF	-	FINANCIAL SERVICES DIVISION
AFP	-	PERSONNEL DIVISION
AFS	-	ADMINISTRATIVE SERVICES DIVISION
AG	-	AGRICULTURE DEPARTMENT
AGA	-	ANIMAL PRODUCTION AND HEALTH DIVISION
AGD	-	OFFICE OF ASSISTANT DIRECTOR-GENERAL (AG)
AGE	-	JOINT FAO/IAEA DIVISION OF NUCLEAR TECHNIQUES IN FOOD AND AGRICULTURE
AGL	-	LAND AND WATER DEVELOPMENT DIVISION
AGO	-	AGRICULTURAL OPERATIONS DIVISION
AGP	-	PLANT PRODUCTION AND PROTECTION DIVISION
AGR	-	RESEARCH AND TECHNOLOGY DEVELOPMENT DIVISION
AGS	-	AGRICULTURAL SERVICES DIVISION
AUD	-	OFFICE OF INTERNAL AUDIT, INSPECTION AND MANAGEMENT CONTROL (ODG)
DD	-	DEVELOPMENT DEPARTMENT
DDA	-	FREEDOM FROM HUNGER CAMPAIGN/ACTION FOR DEVELOPMENT
DDC	-	INVESTMENT CENTRE
DDD	-	OFFICE OF ASSISTANT DIRECTOR-GENERAL (DD)
DDF	-	FIELD PROGRAMME DEVELOPMENT DIVISION
DG	-	IMMEDIATE OFFICE OF THE DIRECTOR-GENERAL
ES	-	ECONOMIC AND SOCIAL POLICY DEPARTMENT
ESC	-	COMMODITIES AND TRADE DIVISION
ESD	-	OFFICE OF ASSISTANT DIRECTOR-GENERAL (ES)
ESH	-	HUMAN RESOURCES, INSTITUTIONS AND AGRARIAN REFORM DIVISION
ESN	-	FOOD POLICY AND NUTRITION DIVISION
ESP	-	POLICY ANALYSIS DIVISION
ESS	-	STATISTICS DIVISION
FI	-	FISHERIES DEPARTMENT
FID	-	OFFICE OF ASSISTANT DIRECTOR-GENERAL (FI)
FII	-	FISHERY INDUSTRIES DIVISION
FIO	-	FISHERY OPERATIONS SERVICE
FIP	-	FISHERY POLICY AND PLANNING DIVISION
FIR	-	FISHERY RESOURCES AND ENVIRONMENT DIVISION
FO	-	FORESTRY DEPARTMENT
FOD	-	OFFICE OF ASSISTANT DIRECTOR-GENERAL (FO)
FODO	-	FORESTRY OPERATIONS SERVICE
FOI	-	FOREST INDUSTRIES DIVISION
FOR	-	FOREST RESOURCES DIVISION
GI	-	GENERAL AFFAIRS AND INFORMATION DEPARTMENT
GIC	-	CONFERENCE, COUNCIL AND PROTOCOL AFFAIRS DIVISION
GID	-	OFFICE OF ASSISTANT DIRECTOR-GENERAL (GI)
GII	-	INFORMATION DIVISION
GIL	-	LIBRARY AND DOCUMENTATION SYSTEMS DIVISION
GIP	-	PUBLICATIONS DIVISION
IAA	-	OFFICE FOR INTER-AGENCY AFFAIRS (ODG)
LEG	-	LEGAL OFFICE (ODG)

ODG - OFFICE OF THE DIRECTOR-GENERAL
OSRO - OFFICE FOR SPECIAL RELIEF OPERATIONS (ODG)
PBE - OFFICE OF PROGRAMME, BUDGET AND EVALUATION (ODG)
TCP - TECHNICAL COOPERATION PROGRAMME

REGIONS

JAFR - JOINT ECA/FAO AGRICULTURE DIVISION
JEUR - JOINT ECE/FAO AGRICULTURE AND TIMBER DIVISION
JLAC - JOINT ECLA/FAO AGRICULTURE DIVISION
JNEA - JOINT ESCWA/FAO AGRICULTURE DIVISION
LNOR - LIAISON OFFICE FOR NORTH AMERICA
LUNO - LIAISON OFFICE WITH THE UNITED NATIONS - NEW YORK
LGEN - LIAISON OFFICE WITH THE UNITED NATIONS - GENEVA
RAPA - REGIONAL OFFICE FOR ASIA AND THE PACIFIC
RAFR - REGIONAL OFFICE FOR AFRICA
REUR - REGIONAL OFFICE FOR EUROPE
RLAC - REGIONAL OFFICE FOR LATIN AMERICA AND THE CARIBBEAN
RNEA - REGIONAL OFFICE FOR THE NEAR EAST

EXTRA-BUDGETARY FUNDS

APHCA - ANIMAL PRODUCTION AND HEALTH COMMISSION FOR ASIA, THE FAR EAST AND
SOUTH WEST PACIFIC
ECLO - EMERGENCY CENTRE FOR LOCUST OPERATIONS
EUFMD - EUROPEAN COMMISSION FOR THE CONTROL OF FOOT-AND-MOUTH DISEASE
FFH/AD - FREEDOM FROM HUNGER CAMPAIGN/ACTION FOR DEVELOPMENT
IFS - INTERNATIONAL FERTILIZER SUPPLY SCHEME
OSRO - OFFICE FOR SPECIAL RELIEF OPERATIONS
PFL - PREVENTION OF FOOD LOSSES PROGRAMME/SPECIAL ACCOUNT
TAC - TECHNICAL ADVISORY COMMITTEE TO THE CONSULTATIVE GROUP ON
INTERNATIONAL AGRICULTURAL RESEARCH
TF - TRUST FUND
UNDP - UNITED NATIONS DEVELOPMENT PROGRAMME
UNEP - UNITED NATIONS ENVIRONMENT PROGRAMME
UNFPA - UNITED NATIONS FUND FOR POPULATION ACTIVITIES
WFP - WORLD FOOD PROGRAMME

CONSTITUTION
VO FINAL DE TODAS
NIZACIÓN ES EL DE ASEGURAR A LA
DRECHO A ESTAR PROTEGIDA CONTRA EL HAMBRE
DISPOSICIÓN MODIFICADA DICE:
CONTRIBUIR ASÍ A LA EXPANSIÓN DE LA
ONOMÍA MUNDIAL Y A LIBERAR DEL HAMBRE
LA HUMANIDAD.»

联合国粮食及农业组织的章程序言

接受本章程的国家为了下述宗旨：
提高它们各自管辖下的人民的营养
水平和生活标准，
改进一切粮农产品的生产和分配的
效率，
改善农村人口的状况，
从而促进世界经济的发展，
决心加强它们分别的和集体的行动
以提高共同福利，为此建立联合国
粮食及农业组织。各成员将通过本
组织彼此报告在上述行动范围内所
采取的措施和取得的进展。

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ان الأمم المتحدة
توطيد الرفاهية
من جانبها لأجل
رفع مستويات التغذية
وتحسين الكفاءة في إنتاج
والنهوض بحالة أهل الريف
ومن ثم تساهم في خلق اقتصاد
تنشئ بهذا «منظمة»
البها فيما بعد بلفظ «المنظمة»
بعضهم بعضا بما يتخذ من
مبادئ العمل المبينة فيما سبق

وبمناسبة العيد العشرين لانشاء
رسميا لتتص على أن الهدف النهائي
هو تعزيز البشرية كلها من الجوع
كسايلى

«ومن ثم تساهم في خلق اقتصاد عالمي
البشرية من الجوع»

PRÉAMBULE
STITUTIF DE LA FAO

D'AMÉLIORER
RURALES,
ET DE CONTRIBUER AINSI À L'EX
L'ÉCONOMIE MONDIALE,
CONSTITUENT PAR LES PRÉSENTES L'ORGANISATION
DES NATIONS UNIES POUR L'ALIMENTATION ET
L'AGRICULTURE, PAR L'INTERMÉDIAIRE DE LAQUELLE
LES MEMBRES SE TIENDRONT MUTUELLEMENT INFORMÉS
DES MESURES PRISES ET DES PROGRÈS ACCOMPLIS
DANS LES CHAMPS D'ACTIVITÉ ÉNONCÉS CI-DESSUS.

À L'OCCASION DU VINGTIÈME ANNIVERSAIRE,
LE PRÉAMBULE DE L'ACTE CONSTITUTIF A ÉTÉ
OFFICIELLEMENT MODIFIÉ POUR AFFIRMER
QUE L'OBJECTIF ULTIME DE TOUTES LES
DIVERSES ACTIVITÉS DE L'ORGANISATION EST
D'AFFRANCHIR L'HOMME DE LA FAIM.
LE TEXTE DIT DÉSORMAIS:
«ET AINSI DE CONTRIBUER À L'EXPANSION
DE L'ÉCONOMIE MONDIALE ET DE LIBÉRER
L'HUMANITÉ DE LA FAIM.»

PREÁMBULO DE LA CONSTITUCIÓN DE LA FAO

LOS ESTADOS QUE ACEPTAN ESTA CONSTITUCIÓN,
DECIDIDOS A FOMENTAR EL BIENESTAR GENERAL
INTENSIFICANDO, POR SU PARTE, LA ACCIÓN
INDIVIDUAL Y COLECTIVA A LOS FINES DE:
ELEVAR LOS NIVELES DE NUTRICIÓN Y VIDA DE
LOS PUEBLOS BAJO SU RESPECTIVA JURISDICCIÓN,
MEJORAR EL RENDIMIENTO DE LA PRODUCCIÓN
Y LA EFICACIA DE LA DISTRIBUCIÓN DE TODOS
LOS ALIMENTOS Y PRODUCTOS ALIMENTICIOS Y
AGRÍCOLAS,
MEJORAR LAS CONDICIONES DE LA POBLACIÓN
RURAL,
Y CONTRIBUIR ASÍ A LA EXPANSIÓN DE LA
ECONOMÍA MUNDIAL,
CONSTITUYEN POR LA PRESENTE LA
ORGANIZACIÓN DE LAS NACIONES UNIDAS
PARA LA AGRICULTURA Y LA ALIMENTACIÓN,
POR CUYO CONDUCTO LOS MIEMBROS SE
INFORMARÁN RECÍPROCAMENTE SOBRE LAS
DISPOSICIONES QUE ADOPTEN Y EL PROGRESO
LOGRADO EN LOS CAMPOS DE ACTIVIDADES
ENUNCIADOS ANTERIORMENTE.

PREAMBLE TO THE CONSTITUTION OF FAO

THE NATIONS ACCEPTING THIS CONSTITUTION
BEING DETERMINED TO PROMOTE THE COMMON
WELFARE BY FURTHERING SEPARATE AND
COLLECTIVE ACTION ON THEIR PART FOR THE
PURPOSES OF:
RAISING LEVELS OF NUTRITION AND STANDARDS
OF LIVING OF THE PEOPLES UNDER THEIR
RESPECTIVE JURISDICTIONS,
SECURING IMPROVEMENTS IN THE EFFICIENCY
OF THE PRODUCTION AND DISTRIBUTION OF ALL
FOOD AND AGRICULTURAL PRODUCTS,
BETTERING THE CONDITION OF RURAL
POPULATIONS,
AND THUS CONTRIBUTING TOWARD AN EXPANDING
WORLD ECONOMY,
HEREBY ESTABLISH THE FOOD AND AGRICULTURE
ORGANIZATION OF THE UNITED NATIONS
THROUGH WHICH THE MEMBERS WILL REPORT TO
ONE ANOTHER ON THE MEASURES TAKEN AND THE
PROGRESS ACHIEVED IN THE FIELDS OF ACTION

CON OCASIÓN DEL 20º ANIVERSARIO,
FUE SOLEMNEMENTE MODIFICADO EL PREÁMBULO
DE LA CONSTITUCIÓN PARA RECONOCER QUE EL
OBJETIVO FINAL DE TODAS LAS ACTIVIDADES DE LA
ORGANIZACIÓN ES EL DE ASEGURAR A LA HUMANIDAD
EL DERECHO A ESTAR PROTEGIDA CONTRA EL HAMBRE.
LA DISPOSICIÓN MODIFICADA DICE:
«Y CONTRIBUIR ASÍ A LA EXPANSIÓN DE LA
ECONOMÍA MUNDIAL Y A LIBERAR DEL HAMBRE
A LA HUMANIDAD.»

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组织彼此报告在上述行动范围内所
采取的措施和取得的进展。

خطة الأغذية والزراعة

لهذا الدستور ، وقد عقدت المعزم على
المشتركة بدعم العمل الفردي والجماعي
ومستويات المعيشة للشعوب التابعة لكل منها،
جميع المنتجات الغذائية والزراعية وتوزيعها،
على ارتفاع
غذائية والزراعة للأمم المتحدة، المشار
والتي يخطر عن طريقها الأعضاء
الناير، وما يتحقق من تقدم في

النظمة عائلت الديساجة
تختلف نشاطات النظمة
لصاحب النص المعدل

موسع ومسان تحرير

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