

C 93/23

# **MEDIUM-TERM PLAN 1994-99**

Food  
and  
Agriculture  
Organization  
of  
the  
United  
Nations



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***MEDIUM-TERM  
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## DIRECTOR-GENERAL'S INTRODUCTION

*As requested by the FAO Conference, I have pleasure in submitting the Medium-term Plan, covering the period 1994-99.*

### **Approach**

*The preceding Plan, covering the years 1992-97, was well received. Because of that, it is undeniably stimulating to be able to build on it. At the same time, it is important for possible feelings of complacency and the trappings of routine to be squarely resisted. The opportunity of periodic review of medium-term prospects, issues and priorities by its Governing Bodies, as offered by discussions of the Medium-term Plan, is an indispensable feature of the policy dialogue among the membership, which should steer the course of a complex organization such as FAO. This is not only my own opinion. I know it is widely shared by representatives of Member Nations. The importance of the Plan - and the process of its consideration by our Governing Bodies - was indeed underlined by the Conference itself.*

*However, as recalled in the last Medium-term Plan document, a well entrenched medium-term planning process should include a reasoned perception of **both** its potential and its limitations. If faced with conflicting expectations, the process could be derailed into irrelevance. Therefore, I stress again that the Medium-term Plan is not to be viewed as another proposed Programme of Work and Budget under the guise of a longer time horizon. In*

*considering it, Member Nations need not decide - and argue - about a precise level of resources, on which to base their future contributions to the Regular Budget. Nor do they need to endorse a detailed programme of specific activities. Breadth of scope, and selectivity in detail has again been the guiding principle.*

*The present document responds to the directives of the Conference that the next version of the Plan should be **more concise**, but still self-contained. The Conference also requested that it should concentrate on policy issues and reflect major developments, and should be linked to the biennial Programme of Work and Budget, without entering into the same level of detail. At its request, it is being submitted through the Programme and Finance Committees and the Council, taking account of the views of the Regional Conferences and the technical Committees of the Council. In order to facilitate its examination, the links with the substantive content of the predecessor document are recalled, as appropriate.*

### **Continuity in effort**

*In the introduction to the last Medium-term Plan, I had set the stage by highlighting key challenges to the Organization - in fact, challenges to Member Nations themselves, either singly or collectively - as follows:*

*poverty alleviation;*

*sustainable agriculture;  
self-sufficiency versus self-reliance;  
broad-based participation;  
public versus private sector;  
redress of past imbalances;  
local technologies and risk alleviation;  
closing the gender gap; and  
the human aspect.*

*Much has happened in the world since the last Medium-term Plan was written. Nevertheless, the extent to which the above challenges have retained their validity is striking. Perseverance in effort is, in effect, a concern very much at heart for those engaged in agriculture, fisheries and forestry activities, from the most humble farmers and producers up to the highest strata of policy-makers. Not surprisingly, the present version of the Plan reflects a large measure of necessary continuity in the problems to be addressed and related priority-setting.*

### **A glance at the past**

*As an international civil servant who has served FAO for well over thirty years, I brush aside for a moment the labyrinthine language of priorities and resource allocation, which normally characterizes programme-planning documents. In this introduction, I would rather focus on a number of thoughts which I wish to share with Member Nations. While a Plan evidently needs to deal with the future, a re-assessment of the past may not be out of order.*

### **A welcome turnaround**

*In many ways, a prognosis of the likely context for FAO's action up to the end of the century, which my colleagues and I have undertaken for the preparation of this*

*document, has been an exhilarating experience.*

*Although the world is still in many parts sadly turbulent, we are no longer haunted by an imminent risk of nuclear conflagration. The glimpses of a new world order are possible to be seen. The rivalries among power blocks and the rhetorical exchanges of accusations across ideological divides, which have paralysed the multilateral system for so long, are much attenuated. FAO prides itself on being primarily a technically-oriented organization and has been spared the worst forms of the paralysing climate affecting some other international institutions. Nevertheless, it would be unrealistic to think that the impact of its action was totally immune from some of the negative aspects of the wider context.*

*Similarly, in striking contrast to the atmosphere prevailing a while ago when it was almost shunned by public opinion and the news media, it is heartening to notice now the frequency of positive references to some of the action of the United Nations system, on all continents.*

*Moreover, during 1992 two key events took place in which FAO played a major role: the United Nations Conference on Environment and Development (UNCED) and our own International Conference on Nutrition (ICN). Both were heralded as historic, not only because of the importance of the issues covered and the significance of the agreements for joint action which were reached among participating nations, but also on account of the broad-based participation of non-governmental interest groups they generated.*

*Most importantly, they gave proof that the world was turning again to the United Nations system to find mutually-agreed*

*solutions to global problems. After a decade of doubt - and even scorn from some quarters - about the capacity of the organizations of the UN system to serve their constituencies in this way, coupled with the impressive surge of peace-keeping and humanitarian operations, these events can be construed as a renaissance for the United Nations system.*

### **Tempting comparison**

*For those who have been able to live through and take an active part in developments of both periods such as myself, this turnaround brings to mind the heady and optimistic days of the early sixties.*

*Mankind was then presented with the enthralling prospect of breaching "new frontiers" in science and technology, which portended formidable progress in space exploration, data processing and telecommunications.*

*The Cold War was then very much a dominant concern, but great faith was being put on multilateral action and peace-keeping activities had not yet entered their long tunnel of oblivion. Large numbers of new nations were being born and welcomed into the fold of the international community, heralding a completely new range of concerns and aspirations. The United Nations system was singled out as the logical major conduit of high quality technical and material assistance to these new nations. The exciting adventure of a fast expanding field programme and associated institution-building in emerging nations, should be one of our most cherished memories.*

*The UN system was also blazing the trail in the identification of global problems and issues, as it was looked up to to bring them to world attention. In fact, its*

*analytical work was in high repute and often the prime source of inspiration for policy-makers.*

### **Fundamental difference**

*However, stopping short of what could otherwise appear as a tempting comparison, I experience considerable regret in noting a fundamental difference in what I would define the inward-looking turn in national and human attitudes.*

*On the one hand, developed countries have exhausted expectations from the welfare state, and are increasingly confronted with the problems of ageing populations. While infinitely more prosperous, they have new preoccupations linked to the deterioration of their social fabric. The countries in transition add to this the unfathomable consequences of the dislocation of an earlier failed economic and social order.*

*On the other hand, developing countries which on the whole have succeeded in establishing the basic ingredients of nationhood, including progress towards more democratic structures, are hitting the bumpy road of further - and far more complex - stages in development. The unavoidable process of differentiation in their economic fortunes, is eroding the base of common interest which united them. In the wake of massive population increases and tremendous environmental pressures, comes an endless chain of social tensions and frustrated expectations, also leading to massive migrations.*

*On both sides, we are witnessing the explosion of micro-nationalism and the many expressions of the wish to assert one's right to be "different", at individual, community or even whole nation levels. These translate into a nourished fire of new revendications on bewildered and hard-pressed governments, which in many*

cases seem unable to cope. Startling dissensions can even be heard in the pursuit of the few hitherto successful regional integration initiatives.

### "Narrow vision"

Therefore, as egocentrism would seem to become more widespread and nations are largely turning inward, it is somewhat saddening to conclude that the nineties may not witness the level of commitment and of generosity that the challenges require.

Even the most welcome new international pronouncements which have been singled out in preceding paragraphs, appear to remain largely on paper, as they are not backed up by determined action and adequate resources.

Thus, the premise for effective action by international organizations such as FAO is yes more exhilarating, but must be tempered by taking account of the "narrow vision" which may continue to prevail for some time to come.

### Charting a realistic future

FAO will need to find its way in a definitely less polarized world, but with far more varied requirements in which to structure its own action.

Is it realistic to expect other than a protracted period during which resources will be meted out with parsimony by the shareholders of this Organization? In effect, the tremendous pressures on public finances in most if not all Member Nations, are unlikely to relent soon, as the so-called "peace dividend" remains elusive. It would also appear that years will need to elapse, with further homeric uphill battles from the most vocal groups, before governments put an end to the

dichotomy of crying for action for the solution of global problems, while at the same time negating the fresh resources necessary to address recognized challenges with any measure of success. For that matter, this sober resource prospect applies to the whole UN system.

While this document deals with plans and priorities, I stress the dimension of the demographic explosion. FAO's activities are shaped by and serve the governments of its Member Nations. But it is people whom programmes and activities are to benefit. The demands of the additional 85 million people in the world each year are compounded by the scourge of human poverty and vulnerability. It does not make sense to think of formulating programmes and budgets without taking account of these growing demands.

For me it is a matter of conscience: I cannot accept that the world population continues to grow, that the demands on this Organization grow, that the responsive capacity of the Organization continues to grow, but that the resources would not increase.

I am also obliged to make the same sober assessment regarding extra-budgetary resources. This is elaborated with appropriate details in the documents dealing with budgetary proposals for the next biennium. The Field Programme is in the throes of far-reaching changes. Besides the likelihood of reduced volume of resources put at the disposal of FAO, the eventual new complexion and substantive range of field activities, admitting that a renewed - and much needed - phase of relative stability could be achieved in the near future, cannot be assessed with any accuracy at the present time.

At least, I am confident that Member Nations will continue to recognize the

*pertinence of Regular and Field Programmes working side-by-side, in order to maintain the relevance and the thrust of their Organization at the forefront of food and agricultural development.*

*I also hope that Member Nations, through the competent organs of the UN system, will recognize the short-sightedness of false economies brought about by declining and uncompetitive conditions of service for the staff. It is illusory to expect that an efficient system and top quality outputs can be had "on the cheap", by denying to the staff conditions of employment commensurate with the qualities of dedication, technical competence and integrity expected from them - all the more so when they see different approaches applied in comparable organizations.*

#### **Two paramount goals**

*FAO's future will be largely determined in relation to two paramount goals of mankind: the need for the world to feed adequately an additional **three thousand million** mouths by the year 2025; and the need to meet the demands for agricultural, forestry and fisheries products from the projected global population of over **eight thousand million**, with attendant pressures on already threatened eco-systems.*

*In this light, I feel great reassurance at the future that Member Nations will chart for*

*the Organization. Its established functions of policy analysis and advice, forum for inter-country cooperation - including normative action - and dissemination of information, are recognized to be as relevant as ever.*

*In substantive terms, the relevant chapters of the Plan provide Member Nations with proposed platforms covering relative priorities at the cross-sectoral, sectoral and regional levels. These priorities are not mere inventions of the Secretariat. They have been distilled from the requirements and requests as expressed by Member Nations themselves, either singly or collectively through established fora, as well as reflecting the opinion of expert bodies.*

*I am confident that FAO is well-equipped to carry out the missions which its Governing Bodies will want to assign to it. Its greatest asset is its staff and every effort has been made, with resource constraints, to provide this staff with the most suitable means for action.*

*In the final analysis, the future of every organization depends on what its stakeholders want to make of its assets. FAO was created to be **the** lead international and universal institution to deal with food and agriculture issues.*

*As it will celebrate its fiftieth anniversary during the period of coverage of this Medium-term Plan, I venture to hope that this remains the expectation of its Member Nations.*



**Edouard Saouma**  
Director-General



## CHAPTER ONE: THE CONTEXT OF FAO'S ACTION

1. *The present chapter depicts the policy context which has influenced the formulation of the Plan. It starts with a brief survey of developments and prospects affecting food, agriculture, fisheries and forestry, and the rural economy in general. As part of this assessment, a summary is given of perceptions of the international community on the relative importance of issues regarding agricultural and rural development.*

2. *Beyond this basic canvas, it examines other key aspects such as developments in the UN system with a bearing on FAO, prospects for the Field Programme and selected management issues which merit the attention of FAO's Governing Bodies.*

### ● **Prospects for Food, Agriculture, Fisheries and Forestry up to the End of the Century**

3. Since the preparation of the last Medium-term Plan, the overall socio-economic environment remains fraught with conflicting signals.

4. The nineties began as a period of profound political, social and economic change. The countries of Central and Eastern Europe, the Republics of the former USSR, as well as several developing countries, have broken sharply with past policies and are struggling through major reforms, designed to put market-oriented economic systems into place. These reforms require, in most cases, a new legal framework, covering property rights and contract sanctity, the development of new financial and banking institutions, and a host of other complex steps. They are generally taking place in a tenuous political environment and in a climate of declining economic performance where real incomes are falling rapidly and social assistance programmes are being cut with negative consequences for nutrition.

5. The World Bank projects somewhat better growth prospects for economies of the low- and middle-income countries, compared with the eighties. Much of the expected growth performance is due to the continuation of strong growth in Asia, and somewhat better performance in both Latin America and Sub-Saharan Africa. The latter region is, however, unlikely to see any significant improvement in *per caput* terms. Thus, the overall economic framework for agricultural development of the region is not promising. The growth prospects of the low- and middle-income countries may be negatively influenced by the currently low performance of the OECD economies and uncertainties brought about by the currency crisis of autumn 1992. The relative stagnation of the OECD economies is not only providing a weak engine of growth for the rest of the world, but is also affecting the amount of assistance they could provide, including to the economies in transition.

6. The restructuring of external debt, which was largely incurred in the seventies by many developing countries, continues together with market-oriented structural policy reforms. Recent declines in interest rates have relieved some of the pressure on those countries with external debt having a variable interest rate.
7. Among the developed countries, Australia and New Zealand have embarked on extensive structural and trade liberalization policy reforms, while similar actions may be presently under discussion and partly under way, to varying degrees, in North America, Western Europe and Japan. Much of this process is budget driven and in all cases, the agriculture sector is an important component.
8. While tightened agricultural budgets may have reduced government intervention in markets, they have also led to disturbing reductions in public support for agricultural research. These may ultimately result in slower rates of technological change in both developed and developing countries. FAO will need to monitor closely these trends and alert member countries to possible consequences.
9. The terms of trade for agricultural products relative to other goods and services, have been falling rather rapidly since the early eighties. In fact, technological progress in agriculture, traditionally, has been rapid, while the demand for agricultural products in general increases more slowly than the demand for other goods and services, as *per caput* incomes increase.
10. While a downward trend in relative prices of agricultural products is to be expected, it has been accentuated by several factors. First of these is the growth of protectionist measures in the OECD area as a whole, particularly of export subsidies.
11. Second, the transition from command to market economies in Eastern Europe and the former USSR, with the concomitant reduction of food subsidies, has resulted in higher consumer prices for food whereas real incomes have fallen. The effect has been a significantly reduced demand for agricultural products, leading to downward pressure on international prices, to the extent that reduced import demand or increased export supplies have resulted.
12. Third, heavily indebted countries, particularly those undergoing structural adjustment programmes, with attendant conditionality terms, are required to export more and import less to correct trade imbalances. While any single country following this prescription is not likely to sway international markets, the conjunction of such measures in many countries is affecting these markets significantly. Exacerbating the effect of stimulation of exports and curtailing of imports is the generally lower real incomes resulting from the structural adjustment process, at least in the medium term.
13. As food habits and dietary patterns change in relation to variations in *per caput* incomes, increasing urbanization, the reduction or elimination of food subsidies, and new tastes and preferences depending on changing lifestyles and health concerns, the agricultural systems will need to adapt to new demands.

14. Major concerns continue over the adequacy and quality of diets, particularly of the poor, food insecure groups and malnourished, especially in the third world, as brought to world attention by the International Conference on Nutrition (ICN), held in Rome in December 1992.
15. The AIDS pandemic is spreading worldwide. In addition to its devastating human toll, the economic consequences are certain to be severe, with high medical cost, lower productivity and slower growth. As these effects are likely to have greater impact on the weaker economies and the more fragile households, FAO will need to provide more assistance to these, according to its mandate.
16. Concern has also been growing rapidly over the deteriorating quality of the environment and the degradation of the natural resource base. The concept of sustainability has come to dominate the lexicons of policy makers everywhere, among public and private audiences alike. In many cases, agricultural policies can be altered to achieve environmental objectives, while still achieving in part or even fully the original production objectives. In other cases, where a clear conflict exists between environmental objectives and economic income or growth, many developing countries feel that they cannot afford to trade off short-term gains for future benefits. FAO has an increasing role in helping member countries to estimate the environmental costs of policies and to help formulate new policies that minimize these conflicts. As questions of "eco-protectionism" become increasingly important, developing countries will need assistance to adapt their policies to new international trade requirements.
17. The world still awaits the results of the Uruguay Round of multilateral trade negotiations under GATT. In the meantime, perhaps to some extent in a sort of defensive reaction to the difficulties in reaching a GATT accord, and partly to regroup the economic and political power structures that came apart as a result of the end of the Cold War, countries are promoting numerous regional trading arrangements, at least to secure the advantages of trade liberalization on a regional basis.
18. In the changing world of growing interdependence described above, confronted with a mixture of old and new concerns alike, FAO is likely to face heavy demands for help in improving trade-related and other exogenous policies, while maintaining its traditional role in working with individual countries. FAO's established roles in providing policy assistance and advice in agriculture, forestry and fisheries, as well as building national capacities, remain a cornerstone of its action.
19. However, this may imply changing FAO's relationship with traditional partners and liaison with new institutions in promoting development. For instance, the World Bank, a traditional partner, particularly through the Investment Centre, and the IMF, a relatively new partner, have become heavily involved in structural adjustment work, which is leading to increasing demands on FAO for tailored policy advisory services and to build related country analytical capacity.
20. The new arrangements with UNDP, beginning with technical support (TSS-1) "upstream" activities, are also calling for heavier concentration of FAO on policy work. The

expansion of the number of CGIAR-supported institutions and their increasing roles in strengthening developing country research capacity and in training, will also call for new partnership with FAO. In addition, the growing influence of NGOs, the move toward national execution of technical assistance programmes and the increasing involvement of the private sector in development, requires rethinking of FAO's *modus operandi* in policy assistance.

21. The period reviewed in the preceding paragraphs - essentially the last few years of the twentieth century - will be of critical importance for mankind. It marks the beginning of a transition period, the duration of which is difficult to foresee, to a more sustainable path of development. Key variables in this transition process are the rates of population growth in various groups of countries and the rates of use of finite and renewable resources. Challenges are posed to societies by aging populations on the one hand, and still rapidly growing populations on the other. Another major set of challenges arises from the need to "delink" human development and welfare from a process of economic growth and accumulation still largely based on the exploitation of natural resources. Success in addressing these challenges will determine whether the "landing" into a sustainable world will be hard or soft.

#### ***Fisheries:***

22. No major change is expected in the near future as regards prospects for the major fisheries of the world. Fish production from most marine resources and from many inland water bodies, has reached - or exceeded - the level of maximum sustainable yield. Further increases in volume must come chiefly from improved management of wild resources in both marine and inland waters and aquaculture development, including enhancement programmes. The value of world production can also be increased by improved post-harvest handling methods and appropriate quality assurance programmes, which would also contribute to better dietary patterns in all countries, and to increased foreign exchange earnings for developing countries, through better access to world markets for fishery products.

23. Over-capacity in world fishing fleets is a direct cause of fishery resource degradation. This is aggravated, particularly in coastal areas, by environmental stresses on ecosystems generated outside the fisheries sector, such as from urban and agricultural run-offs, indiscriminate tree-felling, irrigation and flood control measures. Therefore, the need for integrated coastal area management deserves particular attention. In many high sea areas, inadequate management and overfishing are recognized as major problems. The need to control and reduce fishing fleets operating on the high seas is now being stressed internationally, because excess fishing effort is endangering the very sustainability of fishery resources. This is also often the case inside the EEZs, and affects the commercial viability of the industry. The International Conference on Responsible Fishing, organized by the Government of Mexico in May 1992, and the United Nations Conference on Environment and Development (UNCED), have highlighted that fishing has to be conducted in a responsible manner, in order to ensure optimum utilization of fishery resources as well as to minimize detrimental effects on the environment and on target and non-target species.

## *Forestry:*

24. UNCED and a number of other international events such as the First Conference on the Protection of Forests in Europe and the Tenth World Forestry Congress (1991), have amplified the call for action in forestry. However, the public debate has revealed information gaps, and the diversity of approaches and initiatives aimed at promoting sustainable forestry. There is a clear need for objective and reliable information, and for an international forum which could facilitate policy dialogue and enhance more effective cooperation in forestry. These essential elements are central to FAO's mandate.

25. The recently completed Forest Resources Assessment provides up-to-date information on the world's forest cover, which currently accounts for some 27 percent of the total land area. In most developed countries, forest resources are expanding in standing volumes, but surface could also increase as a result of the trend to set aside land from agriculture use. Concerns are mostly associated with problems of forest health, fires and of diversity of ecosystems. In developing countries, deforestation during the eighties amounted to 11 percent of total forested area in tropical Asia, 7 percent in tropical America and 8 percent in tropical Africa. Uncontrolled changes in land use linked to population growth and rural poverty (and the subsequent need to clear new land for agriculture) are among the primary causes of deforestation. Continued increases of population will lead to further conversion of forest lands to agriculture, but every effort must be made for the process to take place in a planned manner, according to local capacities and needs.

26. The economic significance of forestry is only partly reflected in the official 2 percent contribution of this sector to the global economy. In developing economies, this comes to 2.7 percent. Developed countries account for some 80 percent of the world production of industrial forest products. In developing countries, 80 percent of the wood cut from forests is used for energy, thus contributing 16 percent of all energy consumption, and accounting for 50 percent of the value of the sector's contribution. Forest products account for 3 percent of world merchandise trade, totalling nearly US\$ 100 billion per year. The exports of industrial forest products of developing countries amount to some US\$ 13 billion, but net imports account for some 6 percent of their consumption. However, many outputs from forests and trees such as wild food, fodder and other non-wood products or services, are either not valued or not recorded despite their major socio-economic significance. There is also increased awareness of the global role of forests in the conservation of biodiversity and in the stability of the biosphere.

27. Agenda 21 and the "Forest Principles" adopted by UNCED recognize the manifold nature of the role of forests locally, nationally and globally. The "Forest Principles" constitute an important commitment of all countries to the objective of managing, conserving and developing forests on a sustainable basis and providing for their multiple and complementary functions and uses. This should increase momentum in building up country capacities to survey forests and in launching national forestry action programmes. Forests and forestry are also significant elements of the two framework conventions on biodiversity and climate, approved at UNCED.

28. This new international commitment on forests will greatly influence the prospects for forestry in the coming years. It constitutes an unprecedented challenge both in developing comprehensive approaches which could reconcile potentially conflicting demands for conservation and development, and for applying them widely in very diverse situations, with the participation of all major actors. International interest in forestry has also resulted in the emergence of the new Centre for International Forestry Research (CIFOR) within the CGIAR. It will also influence the renegotiation of the International Tropical Timber Agreement, and the future of ITTO.

29. FAO's mandate and related comparative advantages as leading international organization in forestry, are well known. FAO has a well-established international forest information facility with worldwide coverage of forest resources, forestry activities and forest products utilization. It provides a unique forum for international dialogue and cooperation. Its multidisciplinary capacity for policy analysis and advice related to forestry, especially for countries with economies in transition and in the context of sustainable agriculture and rural development, and technical assistance capacities are particularly suitable to help Member Nations in implementing Agenda 21. They constitute the framework for developing FAO action in the medium term.

## ● Major Events in the United Nations System

### *Global context:*

30. The global context in which the United Nations system is expected to operate is heavily influenced by the political and economic consequences of the end of the Cold War. As recalled in the Director-General's Introduction, this context offers renewed opportunities for international cooperation, e.g. on such issues of global concern as poverty, environmental degradation and fair trade. Expectations that a substantial share of military expenditure could be re-oriented towards development - the so-called "peace dividend" - are, however, still overly optimistic. A recent UN report states that "*all in all, the prospects for substantial aggregate increases in aid flows to developing countries do not seem bright.*" Expenditure by the developing countries on armaments may even increase as they look to alternative security arrangements to erstwhile super-power protection.

31. The end to the previous balance of power and the transition toward new political and economic systems have unleashed new conflicts fed by dormant antagonisms, problems of adjustment and continuing inequalities in benefit and burden sharing. The two sides of the coin are conflicts both within and between countries, and emerging new alliances and trading blocs, regional trading blocs in particular. Calls are made for a new world order in which a major role is envisaged for a transformed United Nations, in the resolution of conflicts and global governance. Other voices underline that this eventual role must not divert attention from the need to improve the UN system's capacity to solve persistent development problems, while safeguarding UN principles of justice, democracy and equity.

### *International agenda:*

32. Among other issues, fair trade, poverty alleviation, sustainable development and protecting the environment are likely to dominate international debates over the medium term. For FAO, these issues *per se* and especially their relevance to sustainable agriculture and rural development, are of considerable importance. Selected aspects are covered in greater detail in Chapter 2. The text below highlights some institutional dimensions of the wider debates.

33. The work of GATT, and its working group on environment and international trade, is likely to continue over the medium term. FAO has been represented at the working group meetings. Its work on harmonization of plant quarantine procedures and on international standards for pesticide residues in foods, other food safety issues and labelling of organic foods, provides a means to address environmental concerns with fewer trade distortions than unilateral use of national procedures and standards, which may constitute hidden barriers to trade. FAO is already collaborating closely with GATT in this area and cooperation will be intensified.

34. Changes have already been made to the mandate of the United Nations Conference on Trade and Development, during the Eighth Session of the Conference in early 1992. It is also foreseen that GATT may be transformed into a Multilateral Trade Organization. Reorientation of the UNCTAD mandate toward poverty alleviation and sustainable development may require further clarification, as many other UN organizations are mandated to work in these areas. Future cooperation with both UNCTAD and GATT will be guided by the need to ensure complementarity and synergy.

### *UN restructuring:*

35. A process of restructuring of the United Nations is under way in the economic, social and related fields. This process not only relates to form, through structural changes to the UN Secretariat, but also to the functions which it should perform. The process is ongoing, and by no means complete. Therefore, the implications for FAO over the medium term cannot be assessed fully. However, some elements are emerging and are briefly mentioned below.

36. An enhanced **peace-keeping/peace-making** role for the UN is seen as essential for ensuring global security and conflict resolution. Steps to expand the UN's peace-keeping role are being actively considered. At the request of the first ever Security Council Summit, the Secretary-General of the United Nations has outlined his views for strengthening the capacity of the United Nations in a document entitled: *An Agenda for Peace*.

37. For FAO and other development agencies, an enhanced security situation might facilitate delivery of technical and humanitarian assistance, while providing a generally more conducive environment for development. There is some concern, however, that a strengthened role for the UN in peace-keeping/peace-making should not be at the expense of its developmental role. While official development assistance has been declining, a UN report issued in September 1992 indicates that some US\$ 3 billion, more than four times the

previous highest figure, were spent on peace-keeping operations in the previous 12-month period. The UN General Assembly has requested the Secretary-General to submit an *Agenda for Development* to its Forty-eighth Session in 1993.

38. With regard to **humanitarian assistance**, steps have already been taken to strengthen the role of the UN system in responding to emergencies and disasters, particularly complex emergency situations where political considerations may come into play. Such steps include a new Department of Humanitarian Affairs, an Inter-Agency Standing Committee and a Central Emergency Revolving Fund. FAO has been cooperating fully with these structures, and looks forward to further collaboration with the department, other UN agencies, NGOs, donor and recipient countries in this area. FAO's principal contributions will continue to be in the areas of early warning of food-related emergencies, food needs assessments and assessment of agricultural rehabilitation requirements, as well as delivery of agricultural inputs. FAO views activities in this area as a necessary "relief-to-rehabilitation-and-development" *continuum*.

39. Other concepts are finding their way into the development debate. On the one hand, as part of the increasing realization that governments cannot, nor should they be expected to, resolve all development problems at country level, partnership between NGOs, private enterprise and governments, with the assistance of international organizations, is felt to be a promising modality for mobilization of all available capacities. Decentralization from the global to the regional level, with a greater role for regional development banks and the UN Regional Commissions, appears likely. The growing concern for participatory development may be motivated by the persistence of problems not resolved by previous development models, and a perceived connection between the presence of democratic political systems, the defense of human rights and effective and equitable operation of economic systems.

40. Broad-based participation is already an FAO priority for the medium term. Its experience of long standing will enable the Organization to continue to explore innovative modalities for cooperation with NGOs in both the North and South. Possibilities for cooperation with the private sector are also being carefully explored, with due regard to preserving the neutrality and independence of the Organization. At the regional level, FAO is one of the few UN system organizations which has Joint Divisions with UN Regional Commissions. Moreover, it is the first UN system organization with membership of a regional integration organization, namely the EEC.

41. As **restructuring** is ongoing, the final outcome is still unclear. At the intergovernmental level, restructuring efforts have mainly focused on the revitalization of the Economic and Social Council, with a view to giving greater coherence to the activities of the UN system. The division of labour between the General Assembly and ECOSOC, as well as the governance of some of the UN operational programmes and funds, is also being examined. At the inter-agency level, a strengthened role for the Administrative Committee on Co-ordination (ACC), grouping all Executive Heads of the Specialized Agencies under the chairmanship of the UN Secretary-General, is foreseen.

42. A clear division of labour and functions among all concerned is indeed a prerequisite to effective cooperation and optimal delivery of UN system support to member countries.



This should include harmonizing sectoral and cross-sectoral approaches, but also funding/financial and technical assistance functions, with appropriate checks and balances. It should also include a proper interface between intergovernmental and inter-agency mechanisms, and consistent positions to be taken by governments in the various fora of the UN system.

43. It is pertinent to recall that the founders of the UN system, perhaps with the short-lived experiment of the League of Nations fresh in their minds, opted for a **polycentric** system, or a confederation of autonomous organizations. While the allure of centralized approaches is always strong, it is worth recalling that the decentralized structure of the system is even more appropriate now, in the light of more complex requirements and the need for issues to be discussed in their proper contexts.

44. In any event, FAO will continue to monitor discussions on restructuring at ECOSOC, the General Assembly and relevant subsidiary bodies (e.g. the new Commission on Sustainable Development). It will also continue to participate actively in the meetings of the ACC and its subsidiary machinery. Through inter-agency coordination mechanisms and bilaterally, FAO will also seek to forge even closer cooperation with other UN system organizations, including multilateral funding institutions, in order to integrate the different capacities and experiences available within the system for the benefit of Member Nations.

## ● **Evolving Field Programme**

45. FAO's field programmes are in the midst of a period of rapid change, both in content and approach. Over the next 4 or 5 years, this should result in a significantly altered position of these programmes in the total spectrum of FAO's activities and, in particular, in their interaction with the Regular Programme. There can be no doubt that the future demand for FAO's technical cooperation services will remain strong, and will continue to be diversified. At the same time, it will be imperative to ensure close matching of national needs with FAO's strengths and capabilities, so that recipient countries may obtain carefully selected and efficiently delivered services in relation to well-identified food, agricultural, forestry, and fisheries problems.

46. At the present time, it is possible to distinguish several dimensions in this momentous evolution. These concern, in particular, shifts in emphasis on the types of services provided, the overall framework within which they will be delivered, and the link with other associated inputs and programmes.

### *The move "upstream":*

47. FAO takes pride in its near 50-year history of assisting member countries to analyse their agricultural economies and rural structures, to measure resources and gauge their potential for increasing production and improving productivity, to develop plans and

management systems for this, and to ensure that future development is secured through attention to the protection and conservation of land, water, plant and animal resources.

48. Technical cooperation in this broad area has, over time, shifted from an earlier needed concentration on resource measurement, stock assessment, evaluation of potential, etc., towards advice to governments on actual utilization - including the more recent emphasis on the overall policy framework to generate equitable and sustainable agricultural growth.

49. Trends indicate that work on direct advisory and technical services to agricultural ministries and related line agencies, is not likely to disappear soon. However, the future will witness more stress on sector and sub-sector studies and human/institutional capacity building, through national/international management training in the pertinent agricultural subject-matters, cross-country and sub-regional workshops, study-tours, and information networking including TCDC - combined with specialized short-term advisory services, where complex technical issues are involved.

50. This work will be partly underwritten by specific resources, referred to as "technical support services to programmes" or TSS-1, under the new UNDP Support Cost arrangements. These, expected to total some US\$ 5 million annually during the next 5 years, will complement FAO's Regular Programme resources, as well as funds which may be available under UNDP's Capacity 21 facility and other sources, to strengthen FAO's capacities to undertake the in-country sectoral and sub-sectoral analytical work and policy advisory services required. There will be valuable opportunities to relate these activities to similar work under Trust Fund arrangements, which is directed to institutional and human resource capacity building.

51. This "upstream" move in agricultural development and management will be accompanied by a reduction in the volume of administrative services provided by FAO to projects in member countries. Such work will increasingly be undertaken by recipient countries themselves, as discussed below.

52. For the "downstream" or traditional projects, which usually form part of ongoing national development programmes, the role of FAO, and the nature of its inputs, will also change - particularly in respect of UNDP-funded projects. Instead of running cadres of resident field experts and technicians and managing the total input package required to achieve results, FAO will instead increasingly be called upon to provide specialized services especially at the design and appraisal stage of such activities, as well as technical backstopping of a multidisciplinary nature and operational oversight during their implementation. Much of this type of work, for UNDP projects, will be financed from the TSS-2 (technical support services to projects) facility under the new UNDP Support Cost arrangements.

53. Depending on country circumstances and capacities, FAO will still, certainly at least over the medium-term time horizon, be involved in the actual administration and operational oversight of major parts of such projects - especially in subject-matter fields where the Organization's comparative skills and experience are of particular relevance. A significant

number of projects, will also continue under FAO's overall execution responsibility. This will continue to be the case in particular for Trust Fund projects - which are expected to retain due prominence in the Organization's total field activities.

*Use of national capacities:*

54. The speed and directions of the shift referred to above will be largely determined by the possibilities of making effective use of countries' own capacities in managing and carrying out the agricultural portions of their national development programmes. FAO has facilitated this process through its extensive capacity-building and training activities over the years, and through the widespread use of national project directors in its technical assistance projects - including training of these directors in agricultural project management, through regular specialized courses. The fact that both governments and donors, in particular UNDP, have consistently allocated resources for such training is, no doubt, a mark of effectiveness.

55. The situation and potential for greater national involvement will, of course, vary from country to country - and depending on the main agricultural, forestry or fisheries disciplines concerned. In some countries, there is already a tradition of appointing national project directors and providing significant amounts of technical, as well as administrative inputs, to FAO-assisted projects. In a number of these countries, the national execution modality (NEX) had become the norm, rather than the exception, as early as the mid-eighties.

56. Elsewhere, there has been a gradual tendency to move towards increased national execution, as and when circumstances so permitted. Thus, there has been under way for some time a tendency for FAO to gradually devolve itself of the detailed day-to-day management of technical cooperation work, e.g. the much less frequent use today of field-based administrative officers in FAO's country activities.

57. In 1992, the rate of approvals for nationally executed projects shot up to over 40 percent of the total UNDP approvals for country projects (it was 15 percent as recently as 1989). Inevitably, this portends a definite contraction in the numbers of UNDP-funded projects under FAO's overall management control (i.e. FAO-executed) - and a progressively induced shift away from providing administrative and operational services for projects during UNDP's Fifth Programming Cycle (1992-96). Since UNDP-funded activities presently account for almost half of FAO's total field programmes, this shift carries important implications not only for FAO's role and field presence at country level, but also for the headquarters and staff structures set up to service field programmes.

58. The impending jump in nationally executed projects in FAO's areas hopefully will not signal the withdrawal of FAO from "downstream" activities, or any marginalized role in UNDP-financed development programmes. Instead, in the next several years, it is likely that a steadily increasing amount of FAO's services will be directed towards strengthening countries' capacity to undertake national execution effectively - to select areas and design projects where this is feasible, and to facilitate efficient project implementation through periodic FAO technical backstopping, as well as the provision of external technical inputs, where required. In addition, as noted, experience suggests that FAO will continue to

execute a significant number of UNDP-funded, as well as Trust Fund-supported projects, and implement important parts of projects which are formally assigned to national execution.

*Focus on sustainability:*

59. The coming years will see intensified efforts to promote a greater degree of national self-reliance and "sustainability" in FAO's field programmes. As part of this overall effort, FAO will build on the successful experience of its Special Action Programmes (SAPs) - which have and will continue to provide a focus for support from Trust Fund donors. Moreover, due to their specific problem-oriented nature, the SAPs constitute a practical and efficient frame of reference - ranging from programme (and associated project) design and formulation, through implementation and promoting necessary follow-up.

60. The Organization is currently undertaking a review of existing SAPs, and the mechanisms for handling these, to ensure that these remain relevant to the changing needs of member countries. It bears note that this review is also timely in paying particular attention to sustainable agricultural development.

*Linking emergency relief to rehabilitation and development:*

61. The increasing occurrence of emergency situations, and their protracted nature, calls for a systematic approach by the Organization. The continued support of Trust Fund donors for emergency activities is a sign of confidence in the capacity and comparative advantage of FAO. At the same time, the close link between short-term emergency relief and medium-, or longer-term rehabilitation and development efforts has been increasingly recognized.

62. The Organization, with the support of donors, has contributed its experience to a process which aims at minimizing the disruptive implications of protracted emergencies for the agricultural sector in a growing number of countries. Through its Field Programme, FAO will support countries from the early state of emergency to the development of rehabilitation and longer-term reconstruction needs. In this area, it is expected that active coordination among the various donors involved will continue to gain importance.

*Coordination, and the role of FAO country offices:*

63. FAO has always recognized the advantages of effective coordination of field activities, not only with other parts of the UN system, but also with other sources of development assistance and funds. This has been so far accomplished, at country level, largely under the framework of the UN Resident Coordinator mechanism, in most if not all cases entrusted to the UNDP Resident Representatives. While that mechanism, through the team leadership concept as endorsed by the ACC, has functioned well in many cases, did contain inherent ambiguities which hindered its effectiveness.

64. The UN General Assembly has been addressing this issue in order to ensure that the country-level UN Resident Coordinator system truly reflects complementarities in the UN system and a clearer division of labour and responsibilities between the different UN organizations. This approach could improve prospects for country-level coordination of the

UN system's technical cooperation activities, and enhance the coherence of the programmes and activities involved, including those of FAO. To facilitate this process, and ensure the optimal division of roles and responsibilities and the desired coordination within the UN system, the concerned UN organizations should be in a position to fully deploy their specific expertise and technical capacities.

65. There is also a move to promote country-based strategies which would serve as a frame for channelling the UN system's development assistance. While such strategies are to be tested in selected countries over the next several years, it will be important that they do not discourage or hinder well-justified specific requests for assistance, in what are invariably dynamic and changing country circumstances. It will also be imperative that they are worked out in close collaboration with governments and are in line with national development plans and situations since the external imposition of an across-the-board strategy for assistance is unlikely to achieve success.

66. In this light, the role of FAO Country Representatives (FAORs) will keep its central importance over the next 5 to 6 years. Besides the required close collaboration of FAORs in the coordination mechanisms just referred to, and bearing in mind their interface with Regular Programme activities, the tempo of discussions with governments, and consultations with UNDP will further accelerate, for instance during the preparations for "upstream" TSS-1 and related activities, planning FAO's support to the national execution modality through TSS-2 services, and cooperation in implementing selected parts of projects.

67. This will require - over the medium term - an increasing delegation of authority to the field for decisions on operational matters, particularly in those countries where the Organization has substantial programmes of technical cooperation. It may also imply a strengthening of selected offices, i.e. through further decentralization, the recruitment, where possible, of qualified national staff, and - in appropriate cases - the outposting of technical specialists in relevant agricultural, forestry, and fishery disciplines.

#### *Promoting synergy:*

68. FAO's field programmes respond to a wide variety of needs, spanning what is often the largest sector in highly diverse recipient countries. While most of FAO's field work consists of technical cooperation, it undertakes important activities of investment identification and preparation, as well as relief and rehabilitation efforts in food and agricultural emergency situations.

69. The complementarity between these diverse activities will receive increased attention in the coming years. This will involve, for instance, synchronization of Regular Programme activities with those funded under TSS-1, and the need to ensure that the TSS-2 programme (mainly for nationally-executed projects) is fully in line with the Organization's larger efforts to build and support national capacities. The TCP will continue to play an important and often vital bridging role, for instance in paving the way for larger-scale technical cooperation activities or in providing necessary interim assistance linking technical assistance and investment interventions. In view of their growing importance, FAO may also be expected

to expand its role in technical cooperation linked to World Bank (and other multilateral financing institutions) loan and credit programmes for food and agricultural development.

### *Managing change:*

70. The above developments portend continued focused management efforts on field activities, in part depending on events and factors outside FAO's direct control. An overriding consideration is the availability of resources to underwrite the necessary changes implied.

71. As evidenced by proposals for the Programme of Work and Budget 1994-95, resource scarcity will inevitably limit the ability of the Organization to respond with full effect, for instance, in pursuing its decentralization policy for FAOR offices. Equally, a down-turn in the resources available to UNDP will impact negatively on FAO's ability to undertake fully the new types of assistance envisaged, for instance, through programme approaches and support to national execution. The future resource scenario for Trust Funds, which is at present reasonably positive, is also important in this context, given their pivotal role in supporting Special Action Programmes, including follow-up to UNCED.

## ● **Selected Management Issues**

### ○ **Personnel Issues**

72. Meeting the challenges facing FAO, as the Organization enters the last part of this century, will require tailored human resources management policy and programmes. Paramount among personnel management concerns is the ability of the Organization to attract and retain staff of the requisite calibre.

73. The trend towards greater national execution and the programme approach to technical cooperation, as well as corresponding shifts within technical assistance work from project "operation" work to the provision of specialized technical advice and services, will also affect the nature of personnel services required. The foreseen reliance on an even greater number of short-term consultants, as opposed to the traditional, longer-term technical cooperation experts, will inevitably lead to a higher volume of personnel servicing actions.

74. Among other factors, the general budgetary climate within the UN system will call for increased delegation of authority, streamlining of operations and simplification of procedures.

75. Paradoxically, however, the increased demands are being matched by a general deterioration in the conditions of service of both the Professional and General Service categories. Despite firm support from FAO Governing Bodies, little has been accomplished within the UN Common System to improve the situation. For a protracted period, Professional and higher category staff have seen a steady erosion of purchasing power,

deterioration in relative terms of benefits and increases in medical costs. This, in turn, has resulted in a growing overlap in the salaries and pensions between Professional and General Service.

76. Instead of initiating an overdue process of restoration of competitive conditions of salaries for Professional staff, the latest response of the competent bodies of the common system has been to reduce the salaries and pensions of the General Service category, by calling into question long-established methodologies for fixing these.

77. The impact on staff morale of these developments is understandably negative. This negative climate naturally has, and will continue to, increase staff turnover and reduce the capacity of the Organization to attract new and adequately qualified staff.

78. Pending satisfactory solution to this central problem, several initiatives may be envisaged as follows:

- (a) **management studies:** the need for restructuring of organizational units in order to achieve new objectives with greater efficiency will be kept under review. The provision of advice on organizational structures, the design of individual job descriptions, the procedures to be followed, the distribution of workloads and levels of staffing required, will thus be continued by the Personnel Division;
- (b) **training and development:** staff training programmes will need to be linked more closely to changing needs and new goals. A major re-training and reorientation of staff will be required, particularly in relation to the greater demand for policy advice, policy analysis, capacity building and support to institutional changes in Member Nations. Continuous adaptation of the technical expertise of staff will also be required to maintain FAO's role as a world authority on food and agricultural matters, both at the global and country level. The present emphasis in the UN system on training of national trainers will be taken into account as a key area of FAO staff's skills enhancement.

Greater emphasis will also have to be placed on management training to equip FAO's managers for the challenges ahead. The current effort of training staff at all levels in office automation techniques will need to be pursued, in line with the introduction of up-to-date computer applications and equipment and integrated administrative information systems;

- (c) **conditions of service:** due attention will be given to informing the common system decision making process (ICSC and UN General Assembly in particular) of the needs of specialized agencies such as FAO, and to advocating within common system fora the legitimate human resources policy responses. Besides, measures which might be taken in FAO within the framework of the common system to improve the recruitment, retention and motivation of high quality staff will be actively considered. At the

same time, additional measures to contain the costs of medical treatment and hospitalization will need to be introduced, without affecting the quality of services provided;

- (d) **recruitment:** while continuing to place priority on the recruitment of staff of the highest competence and integrity, efforts to attract qualified women will be pursued to overcome the present imbalance caused in part by the traditional scarcity of women professionals in the technical fields of FAO's mandate. Likewise, efforts will be made to ensure a more balanced geographic distribution of staff by way of special recruitment missions, advertising and other means. However, it should be stressed that success in meeting these objectives depends in large measure on the competitiveness of salaries and other conditions of service, since there is a direct link between these and the under-representation of certain nationalities on the staff of FAO; and
- (e) **performance appraisal and awards:** measures will be pursued to link the staff performance appraisal system more closely to the work of the Organization and the objectives of organizational units. Improved appraisal recording systems and greater training of management in recognizing, documenting, discussing and following up on differing levels of performance will need to be implemented. The introduction of both non-monetary and monetary merit recognition and award systems for well performing staff should be studied, as well as corrective action for staff not meeting expected standards. Together these measures should contribute to improved staff morale and performance.

- **Financial Administration and Accounting**

79. After the major investment in a full-scale and integrated administrative information system (FINSYS/PERSYS) undertaken in the recent past, a dominant theme over the period of coverage of the plan will be to overcome early implementation problems in FINSYS, and to further enhance computerized financial systems in general. In prime focus will be the adjustment of cost identification and reporting functions to the needs of the new operational environment under the successor arrangements for UNDP and eventual similar arrangements under Trust Funds.

80. Another major aspect relates to further decentralized approaches in the administrative support functions in order to ensure that FAO maintains a lead in an ever increasing competitive environment. This will require constant vigilance to apply the benefits of investment in new technologies, further streamlining, and ensure consistency of approach in policies and procedures. This will have particular relevance in respect of field operations, where the FAO Representatives are expected to assume increasing responsibilities as they become more involved in the support of Trust Fund activities managed by local or other non-FAO staff. More sophisticated banking arrangements could well be required to respond to the exigencies of a changing project environment.



○ **Information Processing and Communications**

81. FAO should continue to take advantage of the productivity gains and qualitative improvements on the workplace, made possible by up-to-date data- and text-processing, as well as telecommunications technologies. In brief, information technology and systems can be perceived to contribute to the achievement of the Organization's objectives in four interrelated ways:

- (a) **substantive work:** the WAICENT applications provide the statistical and textual foundation for much of the Organization's analytical and policy work. The Organization also has active programmes based on sophisticated technology such as remote sensing, GIEWS, and GIS (Geographic Information Systems). FAO will also continue on a selective basis to generate software packages to support the Field Programme and to meet specific needs of member countries;
- (b) **operations:** the widespread access to desktop workstations has already led to significant improvements in the Organization's overall productivity. The implementation of an integrated voice/data network (IVDN) will begin a new chapter in the use of information technology to improve communication and access to information at both headquarters and in field offices. The IVDN will also make possible the implementation of applications to address long-outstanding requirements, related to the production of documents and publications, registry operations and the management of the Organization's vast textual resources in general;
- (c) **administration:** along with ongoing fine-tuning of the FINSYS and PERSYS systems, the Organization will be developing applications to support the efficient administration of field offices and projects. The applications supporting FAO's procurement work will be updated as well; and
- (d) **management information and reporting:** the information needs of FAO management, Governing Bodies, and external constituents will be met more comprehensively by network-based management support and reporting applications, made feasible by the IVDN and other improvements in operations and administrative systems.

*Evolution over the medium term:*

82. The overall objective for the period through 1999 is to expand the use of information technology in line with the availability of advanced equipment and software, depending on cost-effectiveness and FAO's specific requirements. It is possible to distinguish five strategic areas:

- (a) **applications:** by the end of the period, FAO will have established a comprehensive family of technical applications based on WAICENT to

support its analytical and policy work and to maintain its role as the authoritative source of information related to agriculture, fisheries, forestry and nutrition. A series of network-based applications will eliminate geographic barriers to communication and coordination of activities. Its administrative systems are expected to meet standards of comparable organizations;

- (b) **infrastructure:** by 1995, FAO should have completed most of its programme of investment in basic infrastructure, including the IVDN, desktop workstations, network and other server facilities, and necessary telecommunication facilities;
- (c) **operations and maintenance:** the resultant significant capital of applications and infrastructure will require a more robust and sophisticated central support capability within the Computer Services Centre (AFC), as well as the further development of decentralized support capabilities in user departments, especially for applications related to the IVDN;
- (d) **familiarity with computer use:** the development of decentralized support capacities in user departments will be dependent on the staff's overall level of sophistication in the use of computers and will require further training; and
- (e) **planning, policy, standards and control:** finally, the Organization will need to consolidate progress in planning, procedures and control of the use of information technology. A key aspect is the creation of a Planning, Policy and Standards unit within AFC. This unit will be responsible for developing and monitoring an organization-wide applications inventory, a corporate data model, and technical standards for each category of application. The unit will also use a systems development life cycle methodology and complementary computer-aided systems engineering (CASE) tools. The Information Systems and Resources Committee (ISRC) will continue to advise on policy and to review the information technology plans of all concerned units.

#### ○ **Printing Services**

83. As recommended in the framework of the management review undertaken in the 1988-89 biennium, FAO's internal printing capacity has been substantially reduced and limited basically to photo-reproduction. A printing press has been maintained in order to produce particularly urgent long documents which have to be distributed quickly in a large number of copies. Whereas in 1988, the Organization printed internally more than two thirds of documents and publications, this share has now been reduced to little more than one third (essentially covering meeting documentation and administrative materials). These changes have resulted in a substantial reduction in staff and production costs.

84. This situation, however, is not to be seen as a point of arrival, but as a point of departure for new developments. In particular, the Publications Division is now examining the possibility of replacing some of its traditional photo-reduction equipment by new reproduction devices, connected on-line to the division's computer network. This, together with suitable hardware for the long-term storage of texts in electronic form, will allow the printing on demand of meeting documentation and administrative forms, with a consequent reduction in the consumption of paper and in warehouse space.

85. Another future line of development being actively explored is the electronic distribution of some of the texts presently printed. This would enable a further reduction in the internal printing capacity. The actual implementation of this project, however, depends on recipients having access to appropriate hardware and software in order to use (and eventually reproduce) the documents so delivered, and on the implementation of a headquarters-wide system for the electronic storage and transmission of texts. The whole project is now being analysed within the context of FAOINFO, the textual tier of WAICENT.

#### ○ Public Information Activities

86. As the media world is becoming more diversified and complex, FAO needs to disseminate information through various means and "vehicles". In order to bring across its messages, FAO traditionally relies on intermediaries such as national/international mass media, institutions of learning, NGOs, voluntary groupings, etc.. Only through tailoring its public information material, can FAO expect to reach the public. Accordingly, the differing information needs and media structures in various regions must be taken into account.

87. Over the medium term, technical facilities to disseminate public information material will need to follow improvements in telecommunications as a *sine qua non* for FAO to be able to compete on the world media market.

88. In the field of news media, experience has shown that FAO should aim at entering the "news stream" as early on as possible in the process. Therefore, close attention will have to be given to contacts with, and requirements of, the international and regional news organizations, in order to reach the national media.

89. The important area of specialized media dealing with agriculture, forestry and fisheries, offers great potential for FAO to motivate particularly interested audiences and will continue to assume a prominent place in the Organization's media outreach.

90. As regards radio, an increased reliance on co-production arrangements is foreseen. The same applies to television where it will be necessary to work closely with producers of specialized programmes, offering footage and factual information for use in their own programmes. Reliance on full-scale in-house productions is expected to gradually diminish.

91. In terms of content, FAO's information products and messages will continue to reflect the overall priorities of the Organization, highlighting special issues whenever warranted. These priorities will form the basis for materials ranging from booklets, leaflets

and posters to fact-sheets, features, sound and video productions and exhibits. Overall, information will be packaged to facilitate "re-use" at the national level, with emphasis on provision of factual information. The FAO review, *Ceres*, will continue to provide an important vehicle for promotion of issues of concern to the Organization and the world community.

## CHAPTER TWO: CROSS-SECTORAL PRIORITIES

92. *In view of the great interest expressed by FAO Governing Bodies in being apprised of the links between "sectoral" programmes (e.g. crop production or animal health) and "cross-sectoral" actions, this chapter addresses the following thematic priorities:*

- *environment and sustainable development;*
- *policy advice;*
- *people in development;*
- *poverty alleviation, nutrition and food security; and*
- *economic and technical cooperation among developing countries (E and TCDC).*

93. *Coverage of major cross-sectoral priorities was also a feature of the last Medium-term Plan. However, the scope of selected areas has been enlarged on account of the implications of the two recent key events, as highlighted in the Director-General's Introduction: the United Nations Conference on Environment and Development, held in June 1992 in Rio, Brazil; and the International Conference on Nutrition, jointly convened by FAO and WHO in Rome in December 1992.*

### ● Environment and Sustainable Development

#### *The context:*

94. Strengthening of FAO's long-standing activities related to environment and sustainable development was requested in two seminal resolutions of the FAO Conference, respectively in 1989 and in 1991. A major landmark was also the "Earth Summit", the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, 3-14 June 1992. As a result of FAO's active involvement, the food, agriculture, forestry and fisheries sectors figure prominently in the UNCED Plan of Action: Agenda 21. This plan calls for a wide range of actions at local, national, regional and international levels.

95. Beyond its important substantive contributions to UNCED, FAO has geared itself to be a major protagonist in the implementation of Agenda 21. A process of ensuring closer and multidisciplinary linkages between Regular Programme and field activities was initiated with the FAO/Netherlands - "den Bosch" - Conference on Agriculture and the Environment held in April 1991. It led to the launching of an International Cooperative Programme Framework for Sustainable Agriculture and Rural Development (ICPF/SARD) which encompasses a number of relevant Special Action Programmes (SAPs), also in keeping with the thrust of Agenda 21, in the fields of competence of FAO. Initially confined to agriculture *sensu stricto*, the scope of the ICPF/SARD was expanded to permit synergy with forestry and fisheries activities, and also to address selected aspects related to nutrition.

### *Operationalizing the ICPF/SARD:*

96. Agenda 21 puts "the major objective of SARD (as) to increase food production in a sustainable way and enhance food security". With the few exceptions of countries with still unexploited reserves of natural resources, there is no alternative to further intensification of agriculture, until the world population stabilizes in terms of both numbers and demands. The issue faced by many countries is **how** and **where** to intensify agriculture, **without** depleting the resource base and degrading the environment.

97. SARD encapsulates a new policy approach, aiming at:

- (a) improving efficiency in the whole agricultural production-processing-marketing-consumption system, so as to maximize output and incomes while minimizing waste and pollution;
- (b) increasing resilience and reducing risks (environmental and socio-economic) in the use of natural resources and inputs throughout this process; and
- (c) promoting diversification in the production and post-production systems and related sources of income in rural areas.

98. However, a number of prerequisites have to be met, some of them extending beyond the agricultural sector. These include, in particular: the implementation of appropriate population policies; fair terms of exchange in agricultural trade at national and international levels; measures in favour of agriculture in recognition of its importance to the national economy, and with due regard to its contribution to the protection of the environment; and adequate financing.

99. Agenda 21 also calls for adjustments and changes, *inter alia*, in agricultural policies and plans; in devolving more responsibilities and means to the rural communities for decision-making and management of natural resources; in putting the natural resources/population relationship on a sustainable course (e.g. by land zoning, land reform as well as major investments in protecting, rehabilitating and improving the natural resource base); and in promoting technologies which conform to the dictates of sustainability.

100. As a follow-up to UNCED, countries are launching a process of reassessment and review of their development plans in terms of overall sustainability (environmental, social, economic and technological), leading to the development of National Agenda 21s. Through the operationalization of the ICPF/SARD, FAO intends to play a key role in this process as regards the food, agriculture, forestry and fisheries sectors, e.g. by identifying the requirements for policy changes, building national capacities for their implementation and promoting appropriate technologies.

### *Relations with other UN and non-UN organizations:*

101. The breadth of international action required by Agenda 21 calls for a balanced distribution of labour and increased cooperation among concerned international organizations,

both within and outside the UN system. As recommended by UNCED, an intergovernmental Commission on Sustainable Development (CSD) was established by the UN General Assembly to oversee the implementation of Agenda 21. To assist the CSD in its tasks, the Administrative Committee on Co-ordination (ACC) established an Inter-agency Committee on Sustainable Development (IACSD), upon the recommendation of a Special ACC Task Force chaired by the Director-General of FAO. FAO is among the core members of the IACSD and is expected to act as focal point and/or lead agency for coordination in the UN system in its mandated areas, namely food, agriculture, forestry and fisheries.

102. In areas such as climate change, toxic chemicals, ecosystem research and environmental monitoring, other agencies are expected to assume the role of focal point. FAO will contribute to the relevant cooperative programme frameworks, e.g. the World Climate Programme, Earth Watch, the Man and the Biosphere Programme, etc.. Among these, two initiatives will undoubtedly call for active involvement by FAO: the UNEP/UNDP/World Bank Global Environment Facility; and UNDP Capacity 21. FAO will also participate in the implementation of the two International Conventions on Climate Change and Biological Diversity adopted by UNCED. As requested by the Hundred and Second Session of the Council, FAO will also cooperate with other international and regional institutions in facilitating the negotiation of an International Convention on Desertification and Drought and its implementation.

103. In all the above endeavours, FAO will continue to seek and possibly expand cooperation with NGOs.

*Medium-term approach:*

**Programme arrangements:**

104. Mechanisms for permeation of environment and sustainable development concerns throughout FAO's programmes will continue to include funds earmarked under relevant sub-programmes for specific activities envisaged in Agenda 21, and implementation of cross-sectoral activities, under the aegis of the appropriate inter-departmental structures. In general, one department or one technical division takes the lead in specific areas, with contributions from others. This is supplemented by centrally-administered provisions for cross-sectoral work. Areas specifically targeted for strengthening in the foreseeable future include: integration of environment and sustainability considerations in policy advice and planning assistance; biological diversity; climate change; agro-forestry; combating desertification; integrated coastal area management; control of pollution; and energy.

105. Field activities - and related support from the Regular Programme - will continue to be demand-driven and country-focused in order to respond to requests from member countries with projects tailored to their needs and conditions. There are, however, areas of concentration reflecting common priority needs of a large number of countries over a period of time. These areas benefit from special programmatic and managerial measures, in the form of Special Action Programmes associating closely "families" of field projects with clearly-earmarked supporting activities under the Regular Programme. These Special Action Programmes constitute the core of the ICPF/SARD and of FAO's response to Agenda 21.

*Main areas of emphasis:*

106. The areas of emphasis, as listed below, were endorsed by the Hundred and Second Session of the Council and recoup actions described in more detail in other sections of the plan:

- (a) sectoral and sub-sectoral analysis and policy advice: this is the level at which the results of the whole agricultural sector or sub-sector analysis are refined into a set of policy parameters for consideration by national decision-makers. Such advisory work takes into account existing or planned national development strategies, together with available or potential resources, and identifies gaps in these national strategies in order to make them sufficiently comprehensive and forward-looking to achieve sustainable development;
- (b) planning and programming assistance, particularly under three areas of critical importance in sustainable development efforts, which are covered by SAPs: food security and nutrition; national forestry action programmes; and responsible and sustainable fisheries;
- (c) integrated rural development at two levels: at community level (people's participation and capacity building, including human resource development); and at household level (sustainable development of rural households);
- (d) conservation and rational use of critical natural resources for sustainable development: land, water and genetic resources; and
- (e) safe use of key inputs and technologies, essentially in two areas: pest control and maintenance of soil fertility.

107. In terms of information support, expansion of WAICENT will be sought by developing sustainability indicators, and ensuring close links between WAICENT and several applications of Geographic Information Systems (GIS) dealing with natural resources use and degradation in the areas of FAO's mandate. Location-specific problems will be addressed through the further development of environmental impact procedures and more systematic sustainability assessments of field projects.

108. In addition to the above main areas of emphasis which cut across all regions, other priority areas are emerging, which call for increasing attention over the medium term by the Organization, as part of UN system-wide follow-up to UNCED. These relate either to global environmental issues (climate change and biodiversity) or to specific geographic areas, where sustainable development becomes essential. Among these are the drylands, and related problems of combating desertification and drought, and mountain areas which will need to be addressed, particularly in connection with ongoing negotiations of an International Convention on Desertification. Also, coastal zones and small islands will be given increased importance.



### **Climate change:**

109. The likelihood of climate change as a result of an increase in greenhouse gases in the atmosphere has been widely debated. There is also growing concern about the depletion of the ozone layer. The extent, speed of development and regional distribution of these phenomena are still subject to research, but the governments assembled at UNCED agreed that the risks were sufficiently important to warrant the signature of an International Convention on Climate Change. They also decided, as part of Agenda 21, on strengthened international cooperation in research and monitoring, as well as precautionary measures to prevent or mitigate negative impacts.

110. Agriculture, forestry and fisheries are the sectors which may be the most affected by climate change and depletion of the ozone layer. Moreover, agriculture and forestry activities are themselves contributing factors. Related FAO priorities over the medium term will be:

- (a) to keep a "watching brief" on progress by the scientific community in understanding climate change and ozone layer depletion and monitoring their extent; to assess their potential impact (positive and negative) on food security, and more generally on the productivity of agriculture, forestry and fisheries, e.g. by identifying the most vulnerable species and specific activities under threat, as well as the most critical regions;
- (b) to collect and analyse information on the contribution of agriculture, forestry and fisheries, among other causes, to climate change and ozone depletion; to evaluate and promote technologies which can reduce this contribution (e.g. biofuels, improved animal nutrition); and
- (c) to promote technologies which increase the resilience of production systems to climate variability by reducing their vulnerability (e.g. heat tolerant varieties), and to develop further relevant early warning and disaster prevention systems.

### **Biological diversity:**

111. Biological diversity is being lost at several levels of biotic organization: gene, individual, populations, varieties and races (man-made or naturally occurring), species and ecosystems (natural ecosystems and agro-ecosystems). These losses increase the vulnerability of the biosphere to environmental stresses, reduce its capacity to adapt to change, and may limit possibilities of satisfying future human needs. An International Convention for the Conservation and Sustainable Use of Biological Diversity was signed by more than 150 countries during UNCED. Agenda 21 contains a series of recommendations for action in this area, including aspects related to genetic resources. Follow-up actions by FAO in the medium term will include:

- (a) to foster international cooperation and promote national action for the conservation and sustainable use of plant and animal genetic resources for

agriculture, forestry and fisheries, with emphasis on building national capacities for preservation, evaluation and utilization of these resources for breeding work and related biotechnologies;

- (b) to assess and develop further the potential of new or under-utilized species for agriculture, forestry and fisheries; and
- (c) to encourage diversification of production systems and the multiple use of agricultural products and by-products, as integral part of the maintenance of diversity in rural areas.

#### **Coastal areas and small islands:**

112. As more than half of the world's population lives in coastal zones, multiple and conflicting demands are being placed on natural resources in these areas: e.g. lands, freshwater resources, forests including mangroves, wildlife and related biodiversity and living aquatic resources, marine and inland. These pressures are particularly acute in small islands, and are exacerbated by increasing pollution risks and wastes. The possible sea-level rise due to climate change adds a potentially dramatic longer term dimension.

113. An integrated management approach is, therefore, particularly important to ensure sustainable development and environmental protection in the coastal zones and small islands. To this end, planning must be guided by carefully weighted cross-sectoral and sectoral objectives. Several UN and non-UN organizations are involved in formulating guidelines for integrated coastal area management, for use by national and international institutions as well as local authorities. FAO will continue to participate in this effort by formulating sectoral and sub-sectoral guidelines related to the agriculture, forestry and fisheries sectors and by contributing to the formulation of cross-sectoral guidelines. FAO will also assist through specific projects, particularly as regards the protection of coastal fisheries from inland sources of pollution caused by agriculture development, and the establishment of national legislation and institutional capacities.

### ● **Policy Advice**

#### *Scope of policy advice and assistance:*

114. FAO is mandated to work with and assist Member Governments to achieve shared goals, specifically with respect to food, agriculture and rural development. There is a component of policy advice or policy assistance in almost every FAO programme.

115. Policy advice and assistance may be construed to include the following categories:

- (a) global and regional sector studies, action plans and policy issue studies;

- (b) direct policy advice to countries, regions and sub-regions; and
- (c) assistance to enhance the policy analysis and planning capability of a country, region or sub-region.

116. Demand for assistance in direct policy advice from member countries has been growing rapidly. As a follow-up to UNCED and in the implementation of Agenda 21, it is possible to foresee vastly increased demand for policy advice related to sustainable agricultural and rural development (SARD). Greater account of nutritional dimensions in agricultural sector reviews and policy advice is also expected as a result of the ICN.

117. The pressing demands for policy assistance by countries in transition from a centrally-planned to a market-driven economic system is stretching FAO's policy assistance capacity. FAO will need to be responsive to these new demands, while ensuring that assistance to Eastern European countries is not at the expense of other countries.

118. Capacity building includes both training for policy analysis and field projects which provide direct support to national policy analysis units. There is presently a trend for capacity building to concentrate more on policy, and less on traditional sector planning and project preparation and evaluation.

*Medium-term approach:*

119. FAO's approach to policy advice will need to be responsive to recent changes in world conditions, as covered under Chapter 1. One of the key priorities remains to improve the policy analysis capacity and planning framework in Member Nations. Such a framework needs to comprise, on the one hand, the availability of user-oriented, reliable and timely statistics and information; and on the other hand, national capacity for their analysis and translation into sound policies and plans.

120. FAO will, therefore, continue to build on its comparative advantage of close links with Member Governments in analyzing existing policies and plans, formulating agricultural sector and sub-sector policies and plans, and strengthening national capacity for policy and planning work. Training will continue to represent an important component of the Organization's policy assistance package. The ESP Division will pursue collaboration with other divisions in order to elaborate further computerized tools and improved analytical methods for sector planning and policy analysis. The ESP and ESC Divisions will also pursue their joint analysis of interactions among trade, agriculture, environment and development and the role of regional groupings in order to strengthen the conceptual basis for both training and advisory activities. Similar activities will be carried out by the relevant divisions in the Fisheries and Forestry Departments.

121. With the gradual expansion of modalities such as country execution and the programme approach, together with the growing emphasis on technical support, as opposed to operational support, the role of the FAOR in country policy work is increasingly critical. In this connection, a series of seminars has been initiated with participation of both

headquarters and field staff to enhance awareness and capacity of FAORs and to strengthen headquarters/field links in this changing environment for the provision of policy advice.

122. Policy advice also needs to be attuned to the complexity and interdependence of the food, agricultural and general development problems. There is wide recognition that it is not effective to design self-contained policies and programmes related to food security and nutrition, environmental sustainability, food quality and safety, increasing women's participation, income enhancement, rural development, among others. This does not imply that all policy analysis and advice must be global and all-inclusive - an impossible task. To ensure effectiveness, it is essential that active awareness of all components of a comprehensive policy, their linkages and spill-over effects characterize FAO's policy advice activities, however narrow the primary target may be. Actions to achieve better in-house communications and to bring FAO's multidisciplinary strengths fully to bear on policy advice are, therefore, crucial and will be continued.

123. Access to reliable statistical information is another prerequisite for effective policy and plan formulation and analysis. FAO provides a unique service to its Member Nations as collector and disseminator of food, agricultural and nutrition information. While serving as a global clearing house, FAO strives to bring consistency and apply quality standards to data. However, in the final analysis, FAO is acutely dependent on national sources for the quality of data that enters its systems.

124. During the past biennia, much of the Organization's efforts have focused on the development of WAICENT. As WAICENT development and implementation is completed, further shifts of emphasis and resources will be made to help developing countries improve their data systems, which is critical to any significant improvement in the quality of FAO's data dissemination activities.

#### *Organizational arrangements:*

125. Policy advice is based on continuing programme elements in the four technical departments (Agriculture, Economic and Social Policy, Fisheries and Forestry). This multidisciplinary nature of policy advice necessitates adequate organizational arrangements for coordination and cooperation among concerned units in the house. For instance, the integration of environmental and sustainable development issues into mainstream policy is supported by a sub-group of the Interdepartmental Working Group on Environment and Sustainable Development. Overall coordination of policy advice activities will continue to be ensured at both senior management and working levels.

126. The Agricultural Policy Information System (APIS) will further organize available information on policy work and facilitate its access by those carrying out policy advice activities. The APIS is being coordinated with WAICENT and may, in a later phase, be incorporated into it.

127. At the level of external cooperation, the following key examples of significant interaction and cooperative relationships with other organizations in policy advisory activities, are recalled:

- (a) in sector, structural adjustment and food security policy work, close collaboration between FAO, the World Bank, the IMF and bilateral donors and aid agencies is frequent, especially at the country level;
- (b) formal discussions between FAO, the World Bank, the IMF and the Inter-American Development Bank;
- (c) support to trade liberalization and making trade and environment mutually reinforcing, through collaboration with GATT and UNCTAD, including technical assistance to developing countries in those areas; and
- (d) WCARRD policy missions, in cooperation with concerned members of the ACC Task Force on Rural Development.

## ● People in Development

### *The context: changing philosophy of development:*

128. Failure in achieving significant social and economic progress in many countries is largely linked to inappropriate national and international policies, including the nature of state intervention in directing and controlling the development process. In many cases, such state intervention reached down to village-level people's organizations such as cooperatives. This often resulted in: (a) partial or complete paralysis of traditional community organizations which have often successfully managed common property resources such as forests and pastures in an environmentally sustainable manner; (b) failure to stimulate local initiative through people's organizations, e.g. in connection with community infrastructure (e.g. roads, bridges, wells, irrigation and soil conservation measures) and services (e.g. seed stores, input and product marketing, and milling machines); and (c) impediments to disadvantaged groups to achieve, *inter alia*, improved wages, land and tenancy reform, and better access to agricultural and social services. In such cases, people were often considered as means in the development process rather than target beneficiaries.

129. The failure of this approach and the over-extension of the state machinery have led to a return to the concept of "development by the people for the people" - often on the spur of rigorous structural adjustment measures. Such a concept underlay earlier community development work, e.g. in the late forties and fifties, and was implicit in FAO's Constitution. FAO's more recent landmarks in the social sphere are the 1979 WCARRD Programme of Action, and the Action Plans on Women-in-Development (1989) and People's Participation (1991) adopted by the FAO Conference .

130. This changing perception of development has also led to a critical re-examination of the role of the state in many former centrally-planned economies in Eastern and Central Europe, Africa and Asia, as well as in other developing countries undergoing structural adjustment. Functions that could be more effectively handled by people's organizations or

the private sector are being divested from the state machinery. State action, in turn, is being restructured to focus on supporting measures such as gender-sensitive legal and policy environment, financial incentives and the enforcement of legislation and financial regulations. At a broader policy level, attention is being given to reducing the impact of structural adjustment measures and falling agricultural commodity prices on vulnerable population groups through, for example, incentives to small farmers for the adoption of productivity-enhancing technologies and diversification to higher value crops or the provision of safety nets for the disabled and chronically poor. People-centred policy measures require farming systems analyses which recognize different types of resource-poor households and the roles of men and women. Such analyses help to focus research on more appropriate technology development and supporting services.

131. Another significant change lies in the more active stimulation and strengthening of people's organizations such as cooperatives, agricultural service organizations, water users' associations, forest user groups, women's groups, associations of pastoralists, agricultural workers' unions and traditional community organizations (e.g. village councils, reciprocal labour groups, age grades), as vehicles for genuine participatory, i.e. member-controlled activities. Greater participation in membership and leadership positions by women of all socio-economic classes, men from disadvantaged ethnic minorities and social classes, and rural youth is also to be promoted.

*Medium-term approach:*

132. Spearheaded by the implementation of the Plans of Action on Women-in-Development (WID) and People's Participation, FAO will give priority to the integration of people-centred, gender-sensitive concerns throughout its programmes. Specific action will include awareness-building, inter-divisional cooperation in developing participatory methods and tools including rural leadership training, and disseminating information about successful initiatives in promoting people's participation. Innovative and complementary ways of working with national, regional and international NGOs will be sought in order to enhance the impact of development assistance on the rural poor.

133. FAO will pursue its advocacy for equity in access to productive resources and income, through redistribution of assets (particularly land and water), tenancy reform, measures to improve agricultural and rural wages, employment creation and diversification, and income-transfer schemes for the most deprived. At the same time, requests from Member Governments for technical assistance will be met, e.g. in formulating strategies and programmes, including the establishment of necessary institutional infrastructures such as cadastre and land registration systems.

134. FAO's ongoing support to training is to continue, reflecting as far as possible country-specific processes of learning about and building on rural people's knowledge, local customs and rules and, in partnership with them, developing and testing improved technologies and practices. The use of traditional media and appropriate communication technology for training of rural populations will be actively pursued.

135. Substantial contributions to sustainable use of natural resources will be made by ongoing activities, such as the Forest, Trees and People Programme, support to artisanal fisheries, the Integrated Pest Management Programme, the promotion of water users' associations, and general support to strengthening agricultural producers and service organizations, as specified in the Action Plan on People's Participation.

136. It is recalled that the Action Plan on People's Participation covers several areas: promotion of greater public awareness of the importance of people's participation; creation of a favourable legal and policy environment; strengthening the capacities of rural people's organizations; decentralization of government decision-making; promotion of increased dialogue between governments, development agencies and NGOs; and introduction of appropriate operational procedures and methods to facilitate the wider participation of rural populations in the formulation, design, implementation and evaluation of rural development policies, programmes and projects.

137. In the implementation of the Action Plan on Women in Development, attention will continue to be given to the necessary tools, data and training activities to enhance the integration of women's concerns into mainstream programmes and activities of FAO. Resources will be earmarked for policy advisory services on WID to Member Nations and for monitoring gender targeting in Regular and Field Programme activities. FAO's field activities will continue to focus on ensuring rural women's equitable access to scarce productive resources (especially land and water) and agricultural services, and their participation in decision-making within rural organizations, especially by creating environments of gender-sensitive policies and legislation in member countries.

138. Greater prominence is to be given to environmental issues. Action-oriented research will focus on analysing the impact of environmental problems on women's livelihoods and the wellbeing of their families, including the relationships between population policies and practices and environmental sustainability. Rural women's technical knowledge of sustainable resource use in such areas as soil conservation, irrigation and watershed management, shallow waters and coastal resources management, integrated pest management, land use planning, forest conservation and community forestry should also be enhanced, as well as labour-saving technologies, by and for rural women. FAO will pursue its advocacy and policy advisory roles - and related technical assistance - aimed at reducing or eliminating legal and socio-cultural constraints to rural women's access to scarce productive resources.

#### *Coordination within and outside FAO:*

139. The ESH Division will continue its lead in implementing the Action Plans on Women in Development and People's Participation in cooperation with other concerned divisions, many of which have appointed focal points for these activities. ESH will also play a lead role in promoting human resources development throughout FAO, with particular emphasis on agricultural education, extension and training, and rural youth work.

140. At the inter-agency level, interaction with other UN organizations on topics related to "people in development" (particularly people's participation, women in development, human resources development, monitoring and evaluation) is the prime focus of the ACC

Task Force on Rural Development, for which FAO is the lead agency. Other mechanisms include the FAO/Unesco/ILO Inter-Secretariat Working Group on Agricultural Education, Science and Training (ISWG) and a major collaborative venture which is being developed between FAO, UNDP and the World Bank on a large-scale "training of trainers" project, designed to transfer social and gender analysis skills to government and NGO staff in member countries.

141. In the area of people's participation, FAO collaborates with ILO and IFAD and a number of NGOs, such as the International Federation of Agricultural Producers (IFAP), the International Cooperative Alliance (ICA), and the Asian NGO Coalition for Agrarian Reform and Rural Development (ANGOC). FAO will continue to provide host facilities for the inter-agency Committee for the Promotion of Aid to Cooperatives (COPAC).

## ● Poverty Alleviation, Nutrition and Food Security

### *The context of FAO action:*

142. Poverty alleviation, nutrition and food security have been major FAO concerns since its establishment. Besides specific references in the Preamble of FAO's Constitution, the broad mandate of the Organization in these areas was further elaborated and given more specific directions, through a number of international conferences, e.g. the World Food Conference (1974) which, *inter alia*, led to the establishment of the Global Information and Early Warning System on Food and Agriculture (GIEWS) in 1975, the World Conference on Agrarian Reform and Rural Development (WCARRD, 1979), the World Food Security Compact (1985), culminating in the International Conference on Nutrition (1992). Thus, a comprehensive concept of development guides FAO action, going beyond purely technical aspects of developing and managing natural resources for agriculture, fisheries and forestry. It calls for a transformation of rural life and activities in every respect: economic, social, cultural, institutional, technological and environmental, as a means of alleviating poverty and enhancing the wellbeing of rural populations.

143. Poverty alleviation as the root cause of malnutrition was a major message of the ICN. Although there was a slight reduction in the incidence of poverty in the second half of the eighties, the absolute numbers of poor increased from just over 1 billion in 1985 to more than 1.1 billion in 1990. Some 46 percent live in South Asia and 27 percent in sub-Saharan Africa. In both regions, nearly half the population, the majority of whom in rural areas, subsist below the poverty line. The incidence of poverty is less severe in other developing regions, although the percentage of the population below the poverty line in the Near East and Latin America regions is estimated at 33 and 25 percent respectively, compared with only 11 percent in East Asia. Evidence points to the increasing women among the poor, epitomized by the growing numbers of female-headed households which now account for over 35 percent of all households in developing countries. While social indicators have continued to show a slight improvement in living standards, the trend has



slowed down due to reduced expenditure for social services, particularly in countries which are in economic transition or undergoing structural adjustment.

144. In respect of nutritional indicators, some 780 million people in the developing countries are unable to meet their basic daily food needs, while more than 2 billion subsist on diets which lack essential vitamins and minerals required for normal growth and development and for the prevention of premature death and disabilities, such as blindness and mental retardation. Consumption of contaminated food and unsafe water exacerbates malnutrition and recurrent infections, particularly among the undernourished. At the same time, hundreds of millions suffer from chronic diseases caused by excessive and unbalanced dietary intakes.

145. There is undisputed agreement that widespread improvements in nutritional wellbeing and access to food among the poor will require growth in real incomes and income transfers when necessary, as well as an overall improvement in living conditions. There is a need for effective policies that promote economic growth with equity. Specific measures should be enacted to address poverty, such as the redistribution of productive resources (particularly land and water), tenancy reforms to increase security and terms of access to land, improved access to agricultural services, including credit, input and product markets and extension, and employment creation and diversification. Overall improvement in living conditions should be sought through provision of safe water and food, better educational and social services, more effective monitoring of the socio-economic and nutrition situation of the poor, and short-term intervention programmes to take care of those bypassed by development efforts, or adversely affected by structural adjustment measures.

*Medium-term approach:*

146. A number of areas of priority attention over the medium term can be indicated on a selective basis. A major aspect is the more effective incorporation of poverty alleviation, nutrition and food security considerations into FAO agricultural and rural development policy and planning advisory activities, as well as individual field projects. As part of this effort, assistance will continue to be provided, on request, to countries undertaking agrarian reform and changes in land tenure arrangements. Attention will also be given to reversing legal and institutional biases against women and reinforcing attitudes of gender equality in social, economic and decision-making spheres. The active participation of rural men and women in community organizations, including agricultural cooperatives and associations, will be an essential component of field programmes.

147. Progress will be reviewed, *inter alia*, through a global nutritional status monitoring system based on cost-effective nutrition and socio-economic indicators, and will be addressed in the four-yearly progress reports to the FAO Conference on WCARRD follow-up, or in progress reports on the implementation of the Plan of Action adopted by the International Conference on Nutrition.

148. The links between rural poverty and environmental degradation will be further analysed and monitored and support provided to government and NGO programmes to combat poverty. In conditions of increasing population density and land scarcity, attention

will be placed on promoting agricultural intensification in a sustainable manner. Farm and non-farm employment creation will also be given priority.

149. In adopting the "World Declaration and Plan of Action for Nutrition" at the ICN, Member Nations have committed themselves to integrating nutritional wellbeing throughout national development plans and programmes. FAO will need to meet requests for assistance in the design of national nutrition action plans, as well as in incorporating nutrition objectives in national and sectoral development policies and programmes. These will cover programmes reducing chronic hunger and under-nutrition (especially among children, women and the aged), ensuring household food security, preventing micronutrient deficiencies (especially Vitamin A, iron and iodine deficiencies) and strengthening mechanisms to assure food quality and safety. This will also require vigorous support of nutrition education for the public, including the use of mass-media communication techniques to reach the maximum number of people.

150. Improving the nutritional status of the poor, particularly in countries undergoing structural adjustment programmes, will involve assistance in better targeting of beneficiaries of direct nutrition intervention programmes. New and cost-effective methods of dietary assessment will be developed, in order to examine and monitor relationships between changes in diets and lifestyles among growing urban populations, and changes in the patterns of degenerative diseases. Access to appropriate family planning measures will be promoted.

151. As recalled previously, FAO's support for institutional restructuring in Eastern Europe, as well as in former centrally-planned countries in developing regions, will cover aspects such as land titling, land administration and information, and the transformation of state-controlled cooperatives into voluntary and member-administered organizations. In the area of nutrition, the focus of FAO's assistance to Eastern European countries is expected to shift from food aid and emergency programmes for refugees and displaced persons including their rehabilitation, to improved nutrition education - to enable the public to cope with changing dietary patterns and lifestyles - and national capacity-building, including nutrition training for professional staff and improved and harmonized systems for food quality and safety.

152. FAO will continue its assistance to interested countries in the formulation of comprehensive **food security** programmes. This normally includes an assessment phase of the food insecurity problem in a country, the characteristics of the affected population groups, and the causes of food insecurity, including the impact of both domestic and external macro-economic factors. This is followed by a policy formulation phase, which examines the role of state marketing and formulates incentive pricing policies for food and export crops, given internal physical and institutional bottlenecks, existing distortions in world markets, and the need to maintain consumer prices at reasonable levels. Emphasis is placed on: overcoming bottlenecks in marketing infrastructure, including storage, processing, transportation and distribution facilities; improvement of food quality and safety and reduction of food losses at all points in the food chain; and facilitating access by poor male and female farmers to competitive input and product markets, through group associations which could improve their bargaining power with private traders or permit direct marketing. Food security programmes should also address in an integrated manner household food

security and improved nutrition. The further development of national and regional food security information systems, including monitoring of household food security and the selective strengthening of FAO's Global Information and Early Warning System, will be pursued.

*Coordination within and outside FAO:*

153. Poverty alleviation is addressed directly or indirectly by most of FAO's policy, investment and technical field work. A consistent approach will be facilitated by improved coordinating mechanisms, such as the Steering Committee on Field Activities and the impact of a number of Special Action Programmes dealing with nutrition and food security, human resources development, and sustainable household systems.

154. At the inter-agency level, FAO will continue to play a lead role in the ACC Task Force on Rural Development and to participate actively in the work of the ACC Subcommittee on Nutrition.

155. FAO's focus on poverty alleviation involves interactions, in particular with IFAD, UNDP, UNFPA, UNIFEM, WFP, and the World Bank. Close collaboration also takes place between FAO and several regional development centres i.e. CIRDAP, CIRDAFRICA and CARDNE, as well as NGOs.

156. In the area of nutrition monitoring and assessment, and food and nutrition policy analysis and programme design and implementation, FAO works closely with WHO, UNICEF, the World Bank, Unesco, UNU and UNEP as well as a number of non-UN organizations such as IFPRI, the Academy of Educational Development (AED), Washington and the *Réseau pour l'éducation nutritionnelle en Afrique* (RENA).

● **Technical and Economic Cooperation among Developing Countries (TCDC/ECDC)**

*Scope of FAO's action:*

157. TCDC is the voluntary sharing of technical knowledge, skills and experience between developing countries for mutual benefit. FAO, being primarily a technical organization, generally has more scope in supporting technical rather than economic cooperation between developing countries. On the other hand, ECDC involves the establishment of institutional mechanisms by developing countries for implementing policies, programmes and projects aimed at increasing their collective self-reliance, among which are economic integration schemes, groupings of countries sharing interests in specific commodities, authorities for the exploitation of shared resources, and various regional and sub-regional cooperation schemes. In food and agriculture, these may lead to the cooperative development or production of agricultural outputs and inputs, initiatives in agricultural trade, food security, and harmonization of policies for more effective achievement of common aims.

158. With the developing countries as the prime movers and building upon ongoing successful activities, the catalytic and promotional efforts of FAO will need to concentrate over the medium term on areas dictated by the evolving nature of Member Nations' needs. However, enhancing awareness on the relevance, cost-effectiveness and sustainable impact of TCDC/ECDC approaches and modalities, and upgrading national capacities to formulate and implement related initiatives will remain continuing concerns. Parallel efforts will be made on the side of headquarters units, Regional Offices and FAO Representatives, through orientation on TCDC/ECDC mechanisms and procedures.

159. Closer contacts with regional bodies and economic cooperation arrangements, and their selective use as mechanisms for TCDC/ECDC, will also be promoted. Networking, twinning and other collaborative arrangements between institutions, both public and private, as well as NGOs, will be another area of focused attention.

160. A consolidated TCDC and ECDC focal point was established as of 1 January 1992 in the Development Department, supplemented by a system of focal points for both activities in each technical division and Regional Office. Technical and economic cooperation among developing countries are being promoted as integral components of FAO programmes, cutting across sectoral boundaries.

#### *Medium-term approach:*

##### **Information base for TCDC:**

161. A sound information base on the capacities and needs of developing countries is a *sine qua non* for systematic and well-organized TCDC programmes. Assistance will continue to be provided to member countries in the preparation of inventories in the fields of agriculture, forestry and fisheries, and in the dissemination of related information. In some countries, these efforts may be made in connection with general programming exercises. These are mechanisms to identify, after careful preparation and direct dialogue, TCDC activities based on the matching of capacities and needs of the participating countries and, later on, to follow them up with concrete collaborative arrangements. The possibilities of organizing sectoral TCDC programming exercises on food and agriculture in selected countries will continue to be explored, with FAO assistance concentrating mainly on the necessary documentation and technical support. For internal use, a synthesis report based on contributions from FAO Country Representatives was prepared in 1992, which included considerable information on capacities and needs. Resources permitting, it is planned to update this information periodically.

##### **Training:**

162. With the increasing interest of developing countries to train technicians of other developing countries in their institutions, FAO's efforts will concentrate on facilitating the necessary arrangements. A recent example is the use of institutions of the Republic of Korea in inter-country training in the fields of sericulture and tidal land reclamation. The project also typifies the cost-sharing concept of TCDC. The Korean Government covered all local

costs including board, lodging and internal transport. FAO assisted with technical advice and covered international travel and essential equipment.

#### **Networks:**

163. The network approach reflects the conviction that TCDC initiatives should not consist only of *ad hoc* activities, but should have a strong institutional framework, within which dialogue and cooperation among groups of institutions or countries can be carried out on a **sustained basis**.

164. Within its fields of competence, FAO has used networks to foster research and technical collaboration, to upgrade national research capabilities, to facilitate information exchange and transfer of technology. Networking takes various forms and approaches depending on the problems to be solved, the capacities of the institutions involved and funding arrangements. Consolidation of existing networks and promotion of new ones in key priority areas will be an important objective in the medium term. Twinning arrangements between similar organizations and institutions will be promoted, wherever feasible, with a view to increasing their management capabilities, training their staff or improving their operational procedures. Despite the large number of regional/sub-regional intergovernmental bodies and integration groupings in **Africa**, TCDC efforts in this region have been hampered by serious financial and technical constraints. These financial and technical constraints do not affect TCDC only, but special attention will be given to the identification and implementation of feasible TCDC networks in Africa on a selective basis.

#### **Evaluation and dissemination of lessons:**

165. Technical workshops and group training, which are among the traditional modes of TCDC promotion, will concentrate on dissemination of successful technologies to benefit small farmers, women and other disadvantaged groups. Examples of such technologies include fish smoking, low-cost meat preservation, rural household biogas, fertilizer block demonstration, small-scale cheese processing in mountainous areas and rural milk cooperatives. A TCDC workshop hosted by Senegal in October 1992 on simple and cost-effective methods of meat preservation, and attended by about 15 African countries, demonstrates the potential of learning from experience.

166. The TCDC/ECDC Newsletter issued twice a year, and other publications, will continue to sensitize FAO staff and inform government authorities of innovative TCDC and ECDC approaches and opportunities and to disseminate information on completed/planned activities.

#### **Catalysing financial support:**

167. Lack of finance, particularly to cover external costs, is a major constraint to TCDC efforts. The mobilization of extra-budgetary resources will continue to be important. The support of Trust Fund donors to many collaborative activities under sub-regional/regional projects has significantly contributed to their success. It is hoped that, beyond "traditional"

donors, middle-income developing countries will take up a more active role in supporting TCDC for the benefit of other developing countries.

**ECDC priority areas:**

168. The continuing priority areas for ECDC are the following:

- (a) management of common physical resources;
- (b) management of agricultural research and dissemination of technology;
- (c) selective support to integration groupings; and
- (d) promoting inter-country activities.

169. Among specific activities, the role of Intergovernmental Commodity Groups (IGGs) and similar bodies in promoting ECDC will be enhanced, and assistance will be extended in promoting intra- and interregional trade among developing countries. With regard to food security, inter-country cooperation in training of national staff on food information and early warning systems and sharing experiences in the use of alternative monitoring techniques and technologies will be further encouraged. The various sub-regional information and early warning systems being developed in Africa, with assistance from FAO (SADC, IGADD and CILSS), are expected to enhance cooperation in this area between member countries. The FAO regional fishery bodies will be further encouraged to explore ECDC opportunities.

170. In respect of selective support and advice to integration arrangements, a recent example is FAO's collaboration with the OAU in the development of a Common African Agricultural Programme (CAAP), which is expected to provide the basis for the preparation of a protocol on food and agriculture for the Treaty establishing the African Economic Community (AEC).

**Administrative arrangements at national level:**

171. In the ultimate analysis, it is the developing countries themselves which have to guide and lead the process of technical and economic cooperation. Apart from financial constraints, inadequate administrative arrangements, in particular the absence of strong and effective national and sectoral focal points in many countries, continue to hamper the growth of TCDC/ECDC. Such units are needed to remind ministries, in the midst of their many functions and concerns, of the potential role that TCDC/ECDC can play in achieving agricultural development objectives, as well as the need for a continuing search for TCDC/ECDC opportunities. Training of national staff in TCDC/ECDC approaches, methodology and procedures will call for a concerted effort, at times combined with training programmes in the overall chain of project formulation, appraisal, implementation, evaluation and monitoring. This is a task in which FAO looks forward to closely collaborating with UNDP and other organizations of the United Nations development system.

## CHAPTER THREE: PROGRAMME PRIORITIES

172. This chapter deals with "sectoral" priorities under Chapter 2 of the biennial Programme of Work and Budget, which covers the entire range of technical and economic programmes of FAO, spanning agriculture, forestry and fisheries. It comprises continuing - and virtually incompressible - activities (e.g. statistical work, servicing of statutory and expert bodies, recurrent publications, etc.), as well as activities in response to the programme directives of the Governing Bodies.

173. The programme structure comprises three major programmes dealing respectively with agriculture, fisheries and forestry, themselves divided into substantive programmes, eight for agriculture and three each for fisheries and forestry. The latter programmes are divided into a number of sub-programmes which, in most cases, correspond to key disciplines (e.g. agricultural policy analysis), issues (e.g. rural institutions and employment) or sub-sectors of economic activity (e.g. marketing).

174. Accordingly, this chapter aims at providing a synthetic presentation, programme-by-programme, of the following:

- the objectives proposed for FAO, in the light of the requirements of Member Nations;
- brief explanations of the rationale for FAO's action and, as needed, of present organizational arrangements (*Programme Focus*); and
- the proposed relative priorities over the medium term.

175. Extensive descriptions of the problems addressed and comprehensive information on cooperative links established with other institutions and development partners were given in the last Medium-term Plan. Most of this material is of continuing validity and for the sake of economy, is not reproduced in the present document.

### ● Major Programme 2.1, Agriculture

#### ○ Programme 2.1.1, Natural Resources

##### *Overall objective:*

176. The overall objective of Member Nations in relation to the Natural Resources Programme, is to ensure more productive and efficient use of land, labour, water and farm inputs, in order to meet present and future food and agriculture demands on a sustainable basis.

*Specific objectives:*

177. In the light of the related requirements for FAO's assistance and catalytic action, specific objectives under the programme are, therefore:

- (a) to determine alternative land-use policy options based, *inter alia*, on the systematic assembly and analysis of information on land and water resources and crop requirements, and incorporation into databases and geographic information systems;
- (b) to examine the socio-economic and technical constraints on existing farming systems and to propose improved and tested technologies for small-scale farmers to raise their production and productivity on a sustainable basis;
- (c) to assist Member Nations in making the most efficient use of presently available water supplies, and in developing new supplies in the light of future demands, potential resources and economic factors;
- (d) to maintain a lead role in halting and reversing current degradation of soil and water resources, including soil conservation and management of soil fertility, with the associated objective of improving health aspects of land and water development projects;
- (e) to foster integrated plant nutrition systems, which make efficient and balanced use of all sources of nutrients; furthermore to formulate sound national policies and strategies for plant nutrition management, fertilizer use and maintenance of soil productivity; and
- (f) to analyze development options on an interdisciplinary basis in order to sustain natural resource potentials in Member Nations.

*Programme focus:*

178. The programme comprises six sub-programmes covering: natural resources assessment and planning; farming systems development; plant nutrition development and management; water development, management and conservation; soil management, conservation and reclamation; and sustaining natural resource potentials. It has strong connections with other substantive FAO programmes, particularly Programmes 2.1.2, Crops, 2.1.3, Livestock, and 2.3.1, Forest Resources and Environment.

179. The strong field orientation throughout the programme is exemplified by the large volume of extra-budgetary resources which it has traditionally been able to mobilize, many times the Regular Programme allocation. There is concentration of activities in Africa in recognition of the magnitude of problems in the use of natural resources due to land degradation, including erosion and plant nutrient depletion in soils, and rapid population growth in that continent. The programme covers several important Special Action Programmes, and is heavily training-oriented.



### *Main priorities:*

#### **Natural resource assessments:**

180. As a short-term priority, a worldwide geo-referenced information system on water for agricultural and rural development will be established. The major components will be statistics on water use in agriculture and a global information system on water resources, with attention to flooding and ponding regimes of lowlands, to help improve planning in Member Nations.

181. The well-established work of FAO on soil information systems, land evaluation, assessment of crop and population potentials by agro-ecological zones (AEZ), in which the Organization possesses unique comparative advantage in view of its universal coverage, will continue, especially at the country level. Attention will be given to methods for integrating ecological and economic aspects with natural resource assessments. This aspect applies also to water resources, and the contributions of standing vegetation (biodiversity, protection, carbon storage). This work will be complemented by the wide application of recently developed land-use planning methodologies under the aegis of the Inter-departmental Working Group on Land Use Planning. Geographic Information Systems (GIS) are to be used increasingly to assess land and water resource potentials, and for training in AEZ applications, in cooperation with concerned member countries and organizations.

182. To date, information on water resource potentials, necessary for development of irrigated agriculture in arid and semi-arid areas, has centred on the availability of sub-surface water and rainfall. Modern techniques, such as the GIS and satellite imagery interpretation, will permit more sophisticated evaluation of small basin surface water potential, which has so far been under-utilized in many countries.

183. Another medium-term priority lies in strengthening laboratory facilities in member countries, in order to establish functional, scientific analytical services for soil, water and plant nutrients.

#### **Farming systems:**

184. The concept and methods of Farming Systems Development (FSD) are now well-developed and applied to a wide range of development situations. In future, specific procedures will be needed to tap the concept's potential, through interdisciplinary cooperation and participatory analysis at farm- and village-levels. The aims are to contribute to integrated action programmes and improved resource management, through extension and research agendas responding to farmers' needs, more effective support services and consideration of relevant farm-household information in agricultural policies. A Special Action Programme geared towards sustainable development and rural income generation will focus on assistance to national authorities, through training and advisory services. Emphasis will also be put on the design of agricultural development strategies based on effective needs assessments. Diagnosis and modelling will be employed to estimate the response of farming systems to external factors, such as HIV/AIDS.

## **IPNS:**

185. With respect to plant nutrients management and fertilizers, FAO will aim at further progress towards well-balanced, efficient plant nutrition systems, as a key factor for the increase and stabilization of yields. It will firstly draw attention to the many agricultural areas which are degraded by continual removal of plant nutrients without adequate replenishment. Secondly, it will actively promote Integrated Plant Nutrition Systems (IPNS), including mineral fertilizers, biological nitrogen fixation and recycled organic materials, designed for entire cropping and farming systems. Thirdly, it will seek more efficient and economic use of mineral fertilizers and other plant nutrient sources, based on sound integrated plant nutrition strategies and national fertilizer policies. The reclamation of degraded soils and the maintenance and improvement of physical and biological soil conditions will be supported, for example, through improved tillage practices and crop residue management.

186. Advice on strategies, programmes and policies, including appropriate incentives, related to fertilizer use will continue to be provided, but with greater priority on improving input availability through better procurement, distribution and pricing systems, reduction in marketing costs and increased efficiency of marketing agencies, including privatization.

## **Water activities:**

187. FAO's work on water development and management involves several component actions, singly or in combination: advice on irrigation development, improvement and modernization; increased efficiency and improved water management techniques; energy aspects of irrigation methods and practices; use of waste water and development of measures both for increasing production and meeting environmental standards, including disease vector control. Work on irrigation management will give priority to improvement and rehabilitation of existing schemes. All future activities will need to keep a strong training orientation. Extra-budgetary support is of critical importance in irrigation management and training where the ratio of field activities to Regular Programme has been consistently high.

## **Conservation and sustainability:**

188. In the area of conservation and reclamation, community participation is a key element. Priority will be given to methods which ensure effective participation of farming communities, on the premise that conservation practices lead to increased production when farmers are considered as key to a solution and not as part of the problem. The core development activities undertaken under the aegis of the Interdepartmental Working Group on Energy and the Environment, will continue.

189. The increased and safe use of marginal quality water and the reduction of health hazards in irrigation areas, form integral parts of conservation and reclamation efforts. The use of marginal quality water and over-irrigation have increased in many countries and accentuated problems of salinization. The reclamation of salt-affected soils and the safe use of marginal quality and waste water will, accordingly, receive priority. Member Nations are also expected to request assistance for the assessment and control of pollution of land and

water resources. UNCED Agenda 21 has confirmed the need for an inter-agency programme on water and sustainable agricultural development in the nineties, as a follow-up to the Mar del Plata Action Plan and the Dublin Water Conference of January 1992, in which FAO's plays a lead role.

190. Analytical work for sustaining resource potentials, will continue to cover the assessment of the negative and positive impacts of possible climatic change on land and water resource potentials and, through identification of viable systems, assistance to member countries in preparedness planning and adaptation. For the improvement of estimates of the net emissions of greenhouse gases from agricultural and natural terrestrial ecosystems, globally and per country, FAO will establish a fully geo-referenced data base on current land uses. Application at country level is also planned, thereby providing a tool for monitoring of changes in land uses by national institutions.

*External cooperation:*

191. As reported in the previous Medium-term Plan, the programme will continue to involve extensive links with other international organizations. There are no major additions to the list.

○ Programme 2.1.2, Crops

*Overall objective:*

**192. The overall objective of Member Nations in relation to crop production and protection is to match food, feed and other agricultural production with increasing human needs. This entails conservation, evaluation, extension, improvement and full utilization of plant biological diversity and improved agronomic practices which include both production of major crops, as well as increasing the agricultural value of under-utilized crops.**

*Specific objectives:*

193. The specific objectives under the programme are:

- (a) to promote national capabilities and capacity to conserve, enhance and utilize plant genetic diversity through collection, characterization, documentation, exchange of germplasm, plant breeding and variety evaluation programmes, plant propagation (seed and planting materials);
- (b) to promote international collaboration and related information systems on the conservation and rational utilization of plant genetic resources and on the identification of sustainable crop production systems;
- (c) to promote the development and adoption of modern plant biotechnologies in germplasm conservation, plant improvement, plant propagation, crop production and food industry by establishing inter-exchange and

collaboration among laboratories, international centres and developing countries' institutions;

- (d) to promote studies and analyses of crop chains for domestic consumption, export-oriented activities and commodities of importance for developing countries with comparative production advantages;
- (e) to promote innovative agricultural practices, particularly in integrated crop management, based on the suitable assembly of natural resource endowments, socio and economic parameters and technological inputs;
- (f) to prevent and reduce crop losses caused by pests in member countries through the reduction of the spread of quarantine pests, and the promotion of integrated pest management; to reduce the adverse effects of pesticides on human health and the environment and to coordinate control of migratory pests;
- (g) to ensure that farmers have access to appropriate engineering inputs, advice and incentives in the context of integrated farming systems; and
- (h) to provide practical assistance to member countries in combating losses at various stages of the post-harvest food system and in the development of an active small-scale agro-industrial sector.

*Programme focus:*

194. FAO's Crops Programme is broadly based. It provides mainly information, policy guidance and technical assistance to Member Governments in relation to the above objectives. It comprises six sub-programmes: conservation and management of plant genetic resources; crop management and diversification; seed production and improvement; crop protection; agricultural engineering and prevention of food losses; and food and agricultural industries.

195. The programme can be seen to have an "upstream" component to provide a framework for international and national strategies in plant breeding and biotechnology, and a "downstream" component, mainly to assist farmers in integrated crop management and issues such as agro-forestry and other farming systems. It deals with a broad range of crops and technologies.

196. The programme has a strong technical assistance component, as it has been able to attract large extra-budgetary resources, in particular to sub-programmes on crop management and diversification, seed production and improvement, crop protection, and prevention of food losses. Although a major share of the extra-budgetary resources goes to supporting programmes in Africa, substantial activities are also executed in other regions. Field activities in Africa on the whole still concentrate on basic production problems. Those in the other regions have tended to "move up" to tackle sustainability of intensified crop production systems.

### *Main priorities:*

#### **Integrated Crop Management (ICM):**

197. FAO will pursue promotion of integrated crop management (ICM), applied to a wide range of food, cash and fodder crops. The ICM concept embraces all components in the production system and related management activities focusing on particular constraints as entry points to the farming system: integrated pest management; nutrient management; water management; etc.. It aims at optimizing the use of natural resources, reducing environmental risk and maximizing economic output. Each management system is dependent upon locally-specific natural, socio-economic and technological factors and their interrelationships. ICM will provide a framework for analysis at different levels, through the integration of natural and social sciences and technological inputs for a dynamic approach to agricultural stability and ecological sustainability.

#### **Plant protection:**

198. In the field of plant protection, the analysis and distribution of information to Member Governments is a major priority. The technical assistance component will aim at innovative approaches to the reduction of crop losses through the promotion of integrated pest management.

199. With regard to plant quarantine, the main priority is on harmonization of procedures. This aspect has been recognized in the Uruguay Round of GATT as important to reduce trade barriers caused by irrational and unjustified use of quarantine procedures. The function of information exchange will receive due attention. The Secretariat to the International Plant Protection Convention, established in 1992, will carry out this work, in close cooperation with regional plant protection organizations. A formal procedure to develop international standards and guidelines has been proposed to the FAO Conference. It is likely that related requests for technical assistance will gradually increase.

#### **Pesticides:**

200. Environmentally-sound management of toxic chemicals, including pesticides, received full coverage in Agenda 21. Fields of activities in which FAO will have a major role include: international assessment of chemical risks; harmonization of classification and labelling of chemicals; information exchange on toxic chemicals and chemical risks; establishment of risk reduction programmes; and the strengthening of national capacities for the management of chemicals. FAO will seek close cooperation with other international organizations in this regard. The International Code of Conduct on the Distribution and Use of Pesticides will remain central to FAO's assistance to Member Governments. Guidelines on specific aspects of the code will need to be reviewed and updated. Quality standards for pesticides will be published regularly, while information will be provided to assist member countries on decisions on pesticides that are banned or severely restricted (Prior Informed Consent procedure, a joint programme with UNEP). Regular analysis will be made on the implementation of the code and extra-budgetary resources will be sought.

201. Concerning pesticide residues in food and the environment, cooperation with WHO will continue through the Joint Meetings on Pesticide Residues, which provide technical inputs to the Codex Committee on Pesticide Residues. This work will become more important as Codex-adopted levels play a normative role in international trade. It is likely that work on maximum residue levels will gain in importance in the next years and extra-budgetary resources will be required to cover assistance to Member Nations adequately. In the medium term, technical assistance will also be required on pesticide disposal.

202. Integrated pest management (IPM) is recognized in Chapter 14 of Agenda 21 as a major component of sustainable agriculture. The Organization will prepare studies on pest problems and special emphasis will be given to situations of obvious misuse, or over-use of pesticides. It will need to pursue work on important aspects, like weed control, the control of Striga and the provision of pathogen-tested planting material. The Organization will be required to provide technical assistance to help countries formulate appropriate pest control schemes and to design, execute and evaluate technical assistance projects. To support momentum, a Special Action Programme will cover IPM.

203. The programme includes a permanent coordinating function on migratory pest control under the guidance of the Desert Locust Control Committee. Main activities will continue to be the collection, analysis and distribution of information on the desert locust and other migratory pests. Forecasting activities are closely linked to remote sensing work. The programme will further stimulate research on migratory pests to gain a better insight into biological processes and subsequent pest control, and reduce reliance on large-scale pesticide use. Assistance to Member Governments in emergency operations is of long standing.

204. A number of studies have been made on plant protection infrastructures, in particular in Africa, and it is likely that these will need regular updating to shape technical assistance to the countries in the region.

#### **Plant genetic resources and seeds:**

205. Activities in plant genetic resources, in line with Agenda 21 of UNCED, will aim at strengthening the global system on plant genetic resources (PGR).

206. The Commission on PGR and its Working Group will continue to be serviced. Priority will be given to adjusting the global system in line with the Convention on Biological Diversity, and to addressing outstanding policy issues including access to existing germplasm collections and realization of farmers' rights.

207. Work on PGR is wide-ranging: support to international and regional networks on *in situ* conservation areas, *ex situ* base collections under the auspices of FAO, and on-farm conservation, evaluation, management, enhancement and use of PGR. It also includes development of international instruments, such as the Code of Conduct on Biotechnology, as they affect the conservation and use of plant genetic resources. It is planned to convene a Fourth International Technical Conference on Conservation and Utilization of PGR, subject to the availability of extra-budgetary resources. Preparation of periodic reports of the State of the World's PGR and a rolling Global Plan of Action on PGR is planned.

208. The Seed Production and Improvement Programme will continue to provide technical assistance to member countries, thus ensuring access to high-quality seed and planting materials, in the ambit of sustainable agriculture and in support of diversified cropping systems. Special efforts will be made to assist small-scale farmers in remote areas on improving on-farm seed production and towards the development of seed security stocks in regions frequently affected by natural disasters.

209. A cornerstone of PGR work will be the new Global Information System for PGR and Seed Exchange, based on the ongoing Seed Information System and the development of the Global Information and Early Warning System on PGR. These systems will aim at wider diffusion of information on the availability of improved cultivars and technologies.

### **Crop production:**

210. FAO will continue to address production aspects regarding the most important crop groups. For instance, work on rice will more particularly cover the utilization (transformation) of the whole plant biomass, and village-based processing and services (Prosperity/Thriving Rice concept), as well as rice production under various ecological/climatic conditions. Work on food legumes will focus on support to regional and global networks (including soybeans, winter-sown chickpeas, cowpea, etc.). Breeding for enhanced biological nitrogen fixation of food legumes will also be encouraged. Attention to root crops will include production, utilization and marketing of cassava, potato, sweet potato, yams and aroids within the context of sustainable cropping systems. A component of support to regional networks and strong linkages with international agricultural research centres (IARCs) and national agricultural research systems are foreseen. With regard to horticulture, the development of small-scale horticultural cropping systems, particularly for local food consumption, will be the main priority in response to the ICN recommendations for improved nutrition and food security at household level, with due consideration for traditional and highly nutritive fruit and vegetable species and also in the light of income generation for women and youth. However, the commercial horticultural industry and related technology transfer and training on intensive horticultural production and propagation technologies for principal commodities (including protected cultivation - e.g. greenhouses - soilless culture, modern nursing and orchard management) will not be neglected. Work on such industrial crops as under-exploited palms, cotton and oil seed crops, etc., will also continue, especially under the form of regional cooperative programmes.

### **Breeding and biotechnology:**

211. Continued emphasis will be placed on the promotion and support of genetic manipulation for crop improvement. Modern biotechnology provides additional tools for original gene combinations that became available to plant breeders for them to more effectively reach their objectives. In several cases, constraints, hitherto unresolvable, can now, or soon, be removed. Activities will focus primarily on strengthening the capacities of national programmes, while in many cases, initiatives will be taken collaboratively with international research centres.

## **Agricultural engineering and rural agro-processing:**

212. The role of FAO as unique focal point, international forum and advisory body on agricultural engineering will be further enhanced. Activities such as improved handling and storage of foodcrops, or improved energy efficiency of agricultural engineering inputs address concerns expressed at UNCED and ICN and will, therefore, continue. Assistance to formerly centrally-planned economies will aim at restructuring state-operated and centralized mechanization systems into private sector operated ones. Requests for assistance on the design and implementation of research and development programmes for mechanization, post-harvest technology and agricultural structures will be met.

213. In the area of agro-industries, the main focus will remain on the upgrading of traditional technologies to enhance shelf-life, marketability and consumer acceptance of traditional foods, as well as value-added products with export potential. A wide range of commodity groups is covered such as cereals, oilseeds, roots and tubers, fruits, vegetables, cash crops (cocoa, coffee, sugar and tea), and a wide range of natural fibre products (silk, wool, cotton and jute). Further emphasis is to be placed upon the private sector and entrepreneurial development to reflect the growing importance of this sector in the development process.

### ○ **Programme 2.1.3, Livestock**

#### *Overall objective:*

*214. The overall objective of Member Nations is to develop sustainable livestock production, including management of extensive grazing lands, the integration of livestock and fodder production into farming systems, the productive use of crop residues and the maintenance of soil fertility in order both to increase farm household incomes and to meet the growing demand for livestock products.*

#### *Specific objectives:*

215. The specific objectives under the programme are:

- (a) to assist member countries in the management of natural grazing lands so as to improve rural incomes, while avoiding environmental degradation through over-grazing;
- (b) to integrate livestock and fodder production into farming systems, ensure the productive use of crop residues and the maintenance of soil fertility;
- (c) to ensure long-term benefits from animal genetic resources;
- (d) to improve livestock production systems and develop, evaluate and promote strategies for sustainable systems of animal agriculture;



- (e) to promote cost-effective methods of animal health control, to protect human health against diseases transmissible from animals and to minimize the negative impact of animal diseases on international trade; and
- (f) to assist in improving the economic viability of the meat and dairy sector in Member Nations, in order to meet present and future demands for meat, milk and dairy products.

***Programme focus:***

216. The programme covers all key aspects of animal agriculture: feed resources and feeding systems; animal health; genetic resources; and production systems, including the meat and dairy sectors. There are strong components of planning advice, training and promotion of TCDC through networking.

217. One of the main thrusts is on the integration of fodder and livestock into crop production systems, to improve their overall efficiency and to alleviate poverty. In arid and semi-arid areas, the focus is on improved management of natural grazing lands, both as a means to increase income and to control desertification. The environmental importance of these lands is enormous since they cover more than twice as much land as does arable farming; they are important watersheds as well as sources of genetic diversity.

218. FAO's work on animal genetic resources includes cataloguing and describing the world's breeds of livestock, designing strategies of utilization of breed resources, *in situ* conservation and improvement of valuable breeds and *ex situ* preservation of endangered breeds.

219. FAO's role in animal health is of long standing. Besides assistance to member countries in the development of effective animal health services, the Organization is active in longer-term disease control and eradication programmes and the containment and prevention of emergency outbreaks.

***Main priorities:***

**Animal production:**

220. In the semi-arid and arid zones, FAO puts emphasis on improving fodder conservation, fodder trees and grazing systems. In the humid and sub-humid areas, the emphasis is more on providing high-quality feed adapted to local production systems, often nitrogen-fixing legumes, to complement the poor pasture and coarse roughages, which form the basis of livestock feed. Forage seed production is a major aspect. Networks or regional working groups will continue to be used to ensure cooperation between national institutions and between countries with similar ecological systems.

221. A major medium-term priority is the establishment of a comprehensive animal genetic resources programme at the global, regional and national levels. Whereas overall coordination will be ensured under the Regular Programme, regional and country activities

will mostly depend on extra-budgetary funding. Submissions of breed descriptions will be promoted in order to augment continuously the information in FAO's global databank. FAO's *World Watch List of Endangered Breeds* will be published periodically to alert on risks of erosion of genetic resources. Projects on genetic improvement and breed utilization will be supported at the national level for valuable under-utilized breeds. Legal instruments will be prepared for the utilization and conservation of animal genetic resources.

#### **Animal health:**

222. Main priorities can be highlighted as follows:

- (a) maintaining a capacity to respond to requests for assistance in the prevention and containment of emergency and disaster situations;
- (b) assistance to the development of effective animal health services for the livestock production sector in developing countries;
- (c) continued support to control and eradicate major infectious animal diseases, as well as advice on research and development of new and improved animal disease control technologies;
- (d) assistance for the control of trypanosomiasis, East Coast fever and rinderpest, which are the cause of devastating losses; and
- (e) strategic sectoral advice to governments based on increased economic analysis to support technical interventions, and the strengthening of information bases.

#### **Milk and meat sectors:**

223. In the broad area of dairy development, the implementation of model integrated dairy development projects at national and sub-regional levels will continue to be given priority. Further regional workshops on milk processing at village level will be organized. Policy aspects relating to pricing, import requirements and manpower development will be stressed and governments will be given advice on infrastructures needed to supply rapidly expanding population centres with milk and milk products.

224. The meat development programme will continue to give relative priority to improving slaughtering methods. Designs ranging from very simple slaughter slabs to small abattoirs for higher daily throughput and better hygienic conditions, will be made available according to local conditions. Another priority is the development of simple meat preservation methods without a cold chain, e.g. meat drying in open and closed systems, reduction of water content by heating and smoking and canning of meat using alternative sources of energy such as solar energy.

225. As regards meat inspection, the main focus remains on training of meat inspectors and refresher training for veterinarians involved in meat hygiene.

○ Programme 2.1.4, Research and Technology Development <sup>1</sup>

*Overall objective:*

226. *The overall objective of Member Nations in relation to research and technology is to reach self-sufficiency in developing national policies and capabilities in research and technology development, transfer and application.*

*Specific objectives:*

227. In the areas of responsibility of FAO's programme on research and technology development, specific objectives are:

- (a) to strengthen national capabilities in developing countries, giving particular attention to policies and planning of agricultural research, the organization and management of research systems and programmes and evaluation, adaptation and adoption of traditional and emerging technologies for sustainable agricultural development;
- (b) to support international research efforts, particularly those under the auspices of the Consultative Group on International Agricultural Research (CGIAR) of which FAO is a co-sponsor; and to assist in the transfer of production technologies developed by the international agricultural research centres and others to countries and ultimately farmers;
- (c) to promote the voluntary sharing of information among Member Nations, and assist them in handling and use of agricultural information resources, including access to the publications and documents resulting from FAO's activities;
- (d) to assist Member Nations in applying nuclear techniques and related biotechnology, to help solve problems related to food and agriculture such as soil and water management, plant breeding, animal production and health, insect control, agrochemicals use, food preservation; and internationally agreed guidelines and protocols on food irradiation;
- (e) to promote and support applications of remote sensing and geographic information systems (GIS) in agriculture, forestry and fisheries with particular emphasis on applications related to food security and environmental protection; and to assist member countries in strengthening national remote sensing capabilities;

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<sup>1</sup> The coordination of FAO's activities in environment and sustainable development forms a major component of Programme 2.1.4. However, this has been treated in full in the preceding chapter. Therefore, in order to avoid duplication, no reference is made here to the work of Sub-programme 2.1.4.5 related to environment and sustainable development.

- (f) to expand agrometeorological applications to forecasting, monitoring and planning of crop production and pest/disease control and to assist countries in the exchange of agrometeorological data and expertise; and
- (g) to assist developing countries in meeting their energy requirements for agriculture, forestry, fisheries, and for improving the living conditions of rural populations through the development and utilization of small- and medium-scale energy technologies.

*Programme focus:*

228. Research and technology aspects permeate activities throughout the Organization. In addition to its direct involvement in a number of technical areas, the programme provides for the coordination of these activities. Moreover, the programme includes liaison and collaboration in matters of research, science and technology for development, information on agricultural research and technology, nuclear science applications in agriculture, remote sensing, agrometeorology, environment and sustainable development and rural energy, with a wide range of institutions and organizations, in and outside the UN system (cf. list given in the preceding Medium-term Plan).

229. The programme includes five technical sub-programmes: research development; agricultural application of isotopes and biotechnology; AGRIS and CARIS; remote sensing and agrometeorology; and environment, energy and sustainable development. The extra-budgetary resources which have been attracted, particularly by the activities of remote sensing and agrometeorology, environment, energy and the application of isotopes and biotechnology, are a reflection of the leading role of the Organization in these areas.

*Main priorities:*

**Research development:**

230. In the area of research development, the programme will continue to be mainly concerned with the overall institutional aspects of research, while many other substantive sub-programmes deal with the technical aspects of research. Strengthening research management capabilities will continue to be emphasized, through national and regional training courses and workshops for research directors, programme leaders and senior research scientists. Joint sponsorship for these training activities will be sought with interested donor agencies and regional and international organizations and institutions.

231. Requests for advisory services related to national agricultural research are expected to continue throughout the medium term. The programme will continue to mount research review missions for this purpose. As the complexity of research systems increases, the participation of specialized institutions will be sought, when necessary. Technology assessment and transfer and the promotion of stronger participation of universities in agricultural development will also receive priority.

232. The Consultative Group on International Agricultural Research (CGIAR) has broadened its mandate to include natural resources management, fisheries and forestry. Affiliated research centres expanded from 13 in 1990 to 18 in 1992. These developments will place increased responsibilities both on the CGIAR and its Technical Advisory Committee. FAO, as a co-sponsor of the CGIAR and host of the Secretariat for its Technical Advisory Committee, will need to strengthen its support to these international research efforts, while priority attention will continue to be given to the transfer of these research results to the national and local levels.

#### **Information systems:**

233. FAO's international cooperative information systems: AGRIS (International Information System for the Agricultural Science and Technology) and CARIS (Current Agricultural Research Information System) are now well established, and will continue to adapt to evolving needs of Member Nations and to technological changes for increased efficiency. Priority will be given to strengthening national/regional agricultural documentation and information capacities through training activities and field projects. Assistance will incorporate use of microcomputers, compact disc and modern telecommunications technology.

#### **Nuclear techniques:**

234. The medium-term strategy in the application of nuclear techniques in food and agriculture includes ways of increasing soil fertility in part through biological nitrogen fixation, and identifying suitable crop genotypes which perform well with minimum input of water and chemical fertilizers. Also, nuclear techniques will contribute to identifying the best options for increasing the efficient use of water resources, to reduce the emission of greenhouse gases in agriculture and environmental risks from nitrate leaching into groundwater. Attention will be given to the most efficient uptake of nitrogen and phosphorus by crops. These techniques will also be used to develop improved formulations of pesticides and to monitor the fate and behaviour of pesticides in the environment and their residues in food. Assistance will also be provided to strengthen the capability of national plant breeding institutes to use radiation to create genetic variations and to select varieties suitable both for lower-input agricultural conditions and for sustained intensification. Animal health and productivity will be improved by using serological techniques for diagnosing and correcting nutritional deficiencies and diagnosing major diseases.

235. The development of regional facilities for rearing and radiation-sterilization of Medflies in the Mediterranean area and Latin America and the tsetse flies in Africa will be facilitated. Importance will also be placed on improving the efficiency of the sterile insect technique by developing genetic sexing systems and better pesticide formulations for use on target screens and promoting the application of radiation induced F<sub>1</sub> sterility for control of major crop insects (e.g. diamond-back moth, pink bollworm, cornborer). The commercial use of food irradiation will be facilitated as appropriate.

236. Complementing and supporting the programme's work on applying nuclear techniques to agriculture are a number of research networks. These research networks (coordinated research programmes), now numbering over 40, are expected to increase.

#### **Remote sensing, GIS and agrometeorology:**

237. Remote sensing activities will largely concentrate on the Africa Region, where the needs for reliable information on natural resources and for monitoring of environmental conditions related to food security are the most pressing. While the main priority over the medium term remains the systematic monitoring of precipitation and vegetation in Africa and the provision of timely assessments of changes in environmental conditions to the FAO Global Information and Early Warning System (GIEWS), other priority tasks of increasing importance will be the monitoring of deforestation and the establishment of regional land use/land cover databases.

238. Continued emphasis will be given to strengthening national remote sensing capacities and establishing institutional remote sensing networks in order to strengthen cooperation in this field, in the spirit of TCDC. Workshops for decision makers, pilot projects and exchange of experience will be important elements.

239. The integration of geographically referenced data, including physical, biological, social and economic information, in geographic information systems (GIS) will broaden the use of existing data bases and their interfacing with simulation models and statistical packages. The combined use of GIS and FAO's databases will greatly enhance the capability of the Organization to assist member countries in such diverse areas as integrated surveys for the assessment of natural resources, land and water use planning, aquaculture planning, environmental impact assessments, integrated coastal and watershed management, and management of living resources of the high seas. Resulting data will be closely linked with WAICENT.

240. In addition to the work on crop/weather monitoring mentioned above, work on agrometeorology during the medium term will give priority to the relationship between crop and agricultural production and weather and climate situations, including the possible impact of climate change, in order to help reduce uncertainties in agricultural production.

#### **Energy:**

241. In its work on energy, the programme will continue to stress decentralized area-based energy planning which includes integration of energy, environment and agricultural aspects. Institutional arrangements at the national, district and local levels will be supported to consolidate rural energy activities. This approach is multidisciplinary, involving concertation among planners, scientists, technologists, economists and sociologists.

○ **Programme 2.1.5, Rural Development**<sup>2</sup>

*Overall objective:*

242. *A major objective of Member Governments in relation to rural development is to stimulate growth with equity and to alleviate rural poverty, through the provision of adequate and equitable access to productive assets (particularly land, water, fishery and forestry resources) and essential supporting services. In short, a "balanced" and participatory approach is to be pursued to reverse the bias against disadvantaged groups in rural areas.*

*Specific objectives:*

243. The specific medium-term objectives of the programme are therefore:
- (a) to assist governments in formulating and implementing agrarian reform programmes, improving land tenure arrangements, planning and implementing settlement programmes, and strengthening the institutional base for equitable and sustainable rural development;
  - (b) to promote participatory approaches to development through the strengthening of rural organizations including local associations, cooperatives and farmers' unions;
  - (c) to promote effective delivery systems for small farm households, and the diversification and expansion of rural employment, including agro-industries and rural services;
  - (d) to strengthen the capacity of agricultural extension services, including upgrading the technical, communication and managerial skills of extension staff;
  - (e) to assist Member Nations in reorienting the curricula of agricultural training institutions to meet more effectively the needs of small farm households, including fishery and forestry workers, taking account of the increasing commercialization of agriculture and sustainability concerns;
  - (f) to encourage rural youth to contribute more actively to rural development, through employment creation and adoption of productivity-enhancing technologies;
  - (g) to build up national capacity in communication policies and the implementation of communication programmes for information, motivation and training of rural audiences;

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<sup>2</sup> Aspects related to training, people's participation and women-in-development (WID) are extensively covered in Chapter 2.

- (h) to provide policy advice on mainstreaming gender concerns into agricultural and rural development activities and strengthening units capable of designing and implementing programmes for rural women, and carry out supportive information gathering and analytical activities;
- (i) to assist Member Nations towards improved marketing systems of produce and of farm inputs, including effective infrastructure and services such as market information and marketing extension;
- (j) to assist Member Nations in marketing improvements, including privatization under Structural Adjustment Programmes, and appropriate government support in areas such as marketing extension and market information;
- (k) to strengthen rural financing institutions, to foster better access for rural people, both primary producers and others, to suitable savings and credit facilities, and to encourage investment directed to sustainable agriculture; and
- (l) to advise on viable crop and livestock insurance schemes.

*Programme focus:*

244. The programme addresses key aspects of rural development policies through specialized sub-programmes: (a) agricultural education, extension and training; (b) development support communications; (c) agrarian reform and land settlement; (d) rural institutions and employment; (e) women in agriculture and rural development; (f) marketing; and (g) rural finance. It also provides for in-house coordination for such thematic priorities as human resources development, women-in-development and people's participation.

245. Although the main focus during the medium-term period will continue to remain on developing regions, attention will also be given to the needs of Eastern European countries. Closer cooperation with NGOs and the private sector will also be pursued.

*Main priorities:*

246. Alternative options for targeting of socio-economic programmes to the rural poor will be investigated as a matter of priority. Country-specific policy advice will continue to be given, in particular for the formulation of comprehensive agrarian reform and rural development strategies, within the framework of WCARRD follow-up. Technical assistance activities will be carried out through field projects.

247. Assistance will also be given to countries for the implementation of land and tenancy reform programmes to improve land access by the poor. In view of the growing emphasis on privatization and/or decollectivization of land in many countries in Eastern Europe, Africa, Latin America and Asia, FAO faces growing demands for assistance in land



administration and information, including modernization of cadastre and registration systems, through updated computer technology and enhanced institutional capacity.

248. Emphasis will be given to analyzing changes occurring in traditional land tenure systems in Africa and Asia, as well as those of indigenous peoples in Latin America, and to promoting more dynamic participatory approaches to ensure compatibility between new socio-economic needs and customary land tenure practice. The effectiveness of agricultural techniques in enhancing rural living standards and promoting sustainable management and use of natural resources will be continuously assessed, to ensure feedback into the design of settlement policies and programmes.

249. The programme is central to the implementation of the Plan of Action on People's Participation in Rural Development. In this context, efforts will be intensified to assist governments of former socialist countries in the process of transformation of state-controlled cooperatives into voluntary and member-administered organizations.

250. The programme will continue to promote the creation and diversification of gainful employment in favour of marginalized rural groups and will conduct supportive research on the impact of technologies and migration on employment and landlessness. This effort will require increased attention to the farm household, to household production, and to intra-household resource allocation and management.

251. While agricultural extension services will continue to be a major instrument of technology transfer for increasing food and agriculture production, higher priority will be given to their re-orientation to meet environmental and sustainable development concerns. Agricultural education will also require re-orientation of programmes and curricula to support efficient agricultural development systems that are environmentally sound and sustainable.

252. The main priority in the field-oriented development support communication (DSC) activities is to provide advisory services and training to develop national communication policies and to establish communication systems integrated into development programmes. Various communication channels are used according to country-specific conditions and range from traditional media, such as storytellers and folk theatre, to modern electronic media. The programme contributes to FAO's cross-sectoral programmes such as environment and sustainable development, nutrition, women-in-development, and people's participation, through the development of communication strategies, design of campaigns, and production of multi-media materials.

253. Continued attention will be directed to producing the necessary tools, data and training to enable FAO staff to reflect women's roles and concerns in programmes and activities of the Organization. Field activities will focus on enhancing rural women's access to scarce productive resources, particularly land, water and credit, and their participation, including decision-making roles, in rural organizations, especially by assisting Member Nations to create enabling environments of gender-sensitive policies and legislation. Increased emphasis will also be given to utilizing women's indigenous knowledge and improving their management techniques in areas such as soil conservation, irrigation and watershed management.

254. Both UNCED and ICN identified the improvement of marketing services and infrastructure as key elements in achieving sustainable agricultural and rural development. Whilst increased agricultural production is technologically feasible as a result of improved technologies and techniques, production cannot be promoted unless there is a market for the produce, at prices which cover production and marketing costs. There is therefore a need for efficient marketing systems to ensure the flow of produce from farmer to consumer at the lowest possible cost. In this context, priority will be given to assisting governments with the transfer of marketing functions from state marketing agencies to the private sector. FAO's support will address policy and planning issues, private trader development and traders' credit needs. Particular attention will be paid to the strengthening of marketing facilitation services, such as marketing information and marketing extension. Emphasis will be placed also on the development of improved marketing infrastructures, which will benefit consumers by increasing their access to low-cost food supplies as well as improve food hygiene and facilitate dietary diversity. Increased support will be given to member countries to improve input availability through more efficient procurement and marketing systems. Here again, attention will be paid to ensuring that policy changes aim at increased and effective private sector involvement in input marketing.

255. Measures to improve marketing must be complemented by measures to make required credit available at the right time and at the right place. Funds for such lending activities are likely to be increasingly mobilized within the countries concerned, rather than provided from outside. Consequently, emphasis will be placed on assisting national governments to design appropriate rural credit policies. A further priority will be to improve the performance of rural financial institutions, through the introduction of automated operational procedures and related training. Attention will also be paid to the lending policies of banks in relation to the possible environmental effects of their loans.

256. The existing FAO-sponsored regional agricultural credit associations are now well-established and on the way to becoming self-sustaining networks, requiring less support from the Regular Programme. They constitute a cost-effective means of liaison with a large number of savings and lending institutions which are directly serving the rural population. Through the Scheme for Agricultural Credit Development (SACRED), donor agencies are directly involved in support to the regional agricultural credit associations and to their members.

○ **Programme 2.1.6, Nutrition**

257. The Joint FAO/WHO International Conference on Nutrition (ICN), held in Rome in December 1992, elicited the broad participation of a number of UN and international and regional governmental and non-governmental organizations concerned with various aspects of nutrition, food, agriculture and health. The "World Declaration and Plan of Action for Nutrition" adopted by this Conference constitute the frame of reference for FAO's nutrition and related programmes over the medium and long term. The proposed objectives and priorities listed below take full account of the ICN deliberations.

*Overall objective:*

258. *The overall objective of Member Nations in relation to nutrition is to achieve adequate nutrition for all population groups through effective policies and programmes, and information on correct choice of food by consumers, as well as optimum utilization of available food resources. Internationally, Member Nations require standards, codes of practice and other recommendations for harmonization of food regulations and import/export certification requirements.*

*Specific objectives:*

259. In the light of the requirements for FAO assistance and cooperation, as reviewed by the ICN and also in the light of the relevant chapters of Agenda 21 of UNCED, specific objectives under the programme are:

- (a) to assist Member Nations in assessing, analyzing and monitoring nutrition situations, and in formulating effective and efficient policies and programmes to alleviate hunger and malnutrition;
- (b) to support governments' efforts to assess the effects of broad policies and related development activities on nutrition and household food security, and to incorporate nutrition objectives, considerations and components into development policies and programmes;
- (c) to provide technical expertise for estimating human energy and nutrient requirements, and for preparing food composition tables and the related nutrient data base for assessment purposes;
- (d) to assist Member Nations in the formulation, implementation and evaluation of programmes to correct micro-nutrient deficiencies and prevent their occurrence;
- (e) to provide technical assistance to food aid and group feeding programmes (school feeding, vulnerable groups feeding), as well as disaster relief programmes (emergency feeding) and post-emergency rehabilitation programmes;
- (f) to strengthen the capacities of government services to provide nutrition education for the public, through mass-media and other educational channels;
- (g) to assist member countries in strengthening national food control infrastructures and in promoting high quality, safe foods;
- (h) to participate in the evaluation of food additives and contaminants, and in the establishment of specifications and maximum levels in different foods;

- (i) to monitor the levels of food contaminants in major food products, evaluate their trends and assess their effect on international trade;
- (j) to assist Member Nations in the establishment of food import/export quality control and certification systems;
- (k) to foster improved food handling practices in dealing with street foods; and
- (l) to develop international standards and codes of practice and foster, in cooperation with GATT, international harmonization of standards, regulations and certification.

*Programme focus:*

260. FAO's Nutrition Programme is organized in five substantive sub-programmes: to assess and monitor nutrition problems; to develop nutrition policies; to implement both integrated and educational intervention programmes; to improve access to safe food of good nutritional quality; and to develop and apply standards for food quality and safety, and promote harmonization of standards, regulations and certification of food and agricultural products.

261. It has a strong "advocacy" dimension, to create political and public awareness in support of better nutritional status and access to food, and to emphasize the need for formulation and implementation of policies which have a positive impact on nutrition.

*Main priorities:*

262. The overall priority remains on policy advice and technical assistance, based on close monitoring of the nutrition situation in Member Nations. While nutritional problems of both over-nutrition and under-nutrition will be addressed, concerns of the food insecure households, rural populations and poor urban groups will need to be given preferential attention.

263. Strengthening local capacities to identify those most at-risk and effectively target activities to improve nutritional status will contribute to this priority. A global nutrition status monitoring system of populations at-risk will continuously assess the nutritional impact of development projects, using cost-effective nutrition and socio-economic indicators.

264. The nutritional status of the poor throughout the process of structural adjustment will receive due attention through better targeting of beneficiaries for specific assistance programmes and direct nutrition intervention programmes. With increasing urbanization, changes in diets and lifestyles will be accompanied by rises in degenerative diseases. FAO will contribute to the investigation of these relationships by developing cost-effective methods of dietary assessment.

265. Assessing and monitoring nutrition situations, their related causes and what has worked and why, will be linked to the development of food and nutrition plans of action and

policies to be prepared as follow-up to the ICN. Member countries will be assisted in incorporating nutrition objectives in national and sectorial development policies and programmes.

266. For effective implementation of the Special Action Programme for Improving Nutrition, the nutrition component of early warning/food information systems will be further developed in cooperation with the Global Information and Early Warning System (GIEWS). Nutrition objectives will be incorporated into other actions aimed at ensuring household food security and at rehabilitation of refugees and displaced persons.

267. Externally-supported well-targeted nutrition intervention programmes can still be expected to have impact. However, for lasting improvements, emphasis will be given to the generation of local community resources, through people's participation in dealing with food and nutrition problems. Integration of community nutrition elements into large-scale development programmes will be pursued vigorously.

268. Nutrition education for the public is a particularly cost-effective type of intervention, in view of the potential it offers to improve nutritional status on a self-help basis. Mass media communication can be used to support nutrition education campaigns to ensure that vulnerable groups have appropriate information. The promotion of traditional low-cost, but nutritionally valuable crops, is part of such nutrition communication efforts.

269. As emphasized by the ICN, priority will also be given to addressing widespread micro-nutrient deficiency, with emphasis on preventive measures, whereby governments undertake agricultural-based interventions to complement short-term, health-oriented measures. A long-term solution through increased availability and consumption of appropriate carotene and vitamin A-rich, as well as iron-rich foods and diets, will be promoted, as well as other actions to promote foods enriched with vitamins, iodine and other minerals.

270. In-service training of staff in management of group feeding programmes and other community nutrition programmes, is to remain an ongoing activity. Emphasis will be on curriculum revision and technical material development integrating new concepts such as population, environment and household food security. FAO's main channel of exchange of experiences for professional and programme staff will be its periodical *Food, Nutrition and Agriculture*, published three times per year.

271. In the area of food quality control and consumer protection, emphasis will be given to the promotion of appropriate quality assurance programmes, at all levels of the food chain; the assessment of the magnitude and geographical location of major food contamination problems, particularly from environmental sources; the building of necessary infrastructures, at national level, to control the quality and safety of food products; and the establishment of food export certification systems. Efforts will be strengthened towards the harmonization of international standards and regulations for food and agricultural products.

272. The well-established role of FAO in evaluation of food additives, contaminants and chemical residues in foods, in which the Organization possesses unique comparative

advantage, will need to continue and extend to other chemicals which have not yet been evaluated.

273. Inter-country cooperation at regional level will be promoted, through TCDC initiatives and facilitating interaction of national food control authorities. Regional centres of excellence, including FAO collaborating centres, in such activities as control of pesticides residues, heavy metals, mycotoxins and export inspection/certification will be supported. These centres will be enabled to play an effective role in the training of technical personnel and in providing technical advice to member countries in respective regions.

274. Strong support for the work of the Codex Alimentarius Commission has been reiterated in a number of fora. Direct support to the Codex programme, in the form of host government arrangements for the holding of meetings, will continue to be sought and extended to meetings currently funded from Regular Programme funds.

○ **Programme 2.1.7, Food and Agricultural Information and Analysis**<sup>3</sup>

*Overall objective:*

275. *The overall objective of Member Nations is to obtain timely, reliable statistical and analytically based information required for the formulation and implementation of appropriate and sustainable food and agricultural policies.*

*Specific objectives:*

276. The specific objectives are:

- (a) to operate a comprehensive corporate statistical system, the World Agriculture Information Centre (WAICENT), incorporating both statistical and textual information systems, contributing to improved data management, as well as consistency, quality and timeliness of information released;
- (b) to support national statistical offices in the development and maintenance of effective systems for collecting and analyzing basic statistics on food and agriculture;
- (c) to pursue qualitative improvements of FAO and national data, including data related to the environment;
- (d) to promote the use of advanced techniques, such as remote sensing, in agricultural statistical work in developing countries;

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<sup>3</sup> This programme, *inter alia*, underpins FAO's work in agricultural policy analysis and planning assistance under Programme 2.1.8, and more generally in policy advice, which is covered in Chapter 2.

- (e) to provide to governments and the public at large, regular, timely and clear assessments of the state of food and agriculture at the global, regional and country levels, also contributing to greater market transparency;
- (f) to provide regular assessments of the global agricultural commodity and trade situation and outlook, based on information collected and analyzed on major commodities, but also extended to non-traditional agricultural products which are becoming increasingly important in international trade;
- (g) to monitor closely trade flows under the growing number of trade arrangements; and
- (h) to provide analyses of current food and nutrition situations and timely advice on impending food emergencies to governments and the international donor community.

*Programme focus:*

277. This programme, at the core of FAO's analytical work, includes: the compilation, processing, analysis and dissemination of a wide range of food and agricultural statistics culminating in WAICENT; reviews of the state of and changes in the world food and agricultural situation and outlook; analyses of the commodity trade situation, prospects and issues; preparation of World Food Surveys; operation of the Global Information and Early Warning System; assisting countries in strengthening their food information and early warning systems; and providing technical support to the joint agricultural divisions and Regional Offices in their work on agricultural policy analysis, planning assistance and training. The programme is managed by the Statistics Division (ESS), the Commodities and Trade Division (ESC) and the Policy Analysis Division (ESP).

278. The programme has a global and comprehensive orientation. The increased coverage given to developed country policy issues in recent years includes, in greater depth, developments in the former centrally-planned economies of Central and Eastern Europe and the former USSR.

*Main priorities:*

279. The development and promotion of standard statistical concepts, definitions, classifications and methods is one of the main priorities. At the country level, FAO will aim at uniformity in these areas through its programme for the decennial World Census of Agriculture (WCA), as well as publications under its *Statistical Development Series*. WAICENT contributes to this major effort. Towards this end, more efficient data collection methods and techniques will be continuously identified and disseminated through training courses and technical publications, aimed particularly at developing countries.

280. Support of national data collection systems will continue through field projects, either entirely devoted to statistics or with a statistical component. In order to enable countries to furnish data on agriculture used in their own policy-making which could meet

international needs, these field projects will seek to establish a permanent capability to collect agricultural data and not only to undertake one-time data collection operations.

281. Significant improvements in the methods for estimating land use and crop area are expected by developing links between remote sensing data and agricultural statistics, particularly in developing countries with insufficient capability in this area. This approach entails expanding dialogue and collaboration in sharing and interpreting remote sensing imagery and its analysis. Archives of remote sensing image photographs are being established to complement existing national statistical data collections.

282. As a follow-up to the ICN, the collection, processing and analysis of food consumption data from household surveys to assess food distribution and consumption levels and food inadequacy, will receive increased priority. Agricultural census results and household survey data will be used for developing socio-economic indicators. Greater attention will be given to the analysis of non-traditional agricultural products in order to support export diversification in the developing countries. Another area of priority attention will be data on trade flows to facilitate the analysis of agricultural trade between countries and groups of countries.

283. The integration of existing FAO statistical systems of corporate significance into the FAOSTAT component of WAICENT is being completed in the 1992-93 biennium. Furthermore, WAICENT will be extended to include textual information (FAO INFO data base) during 1994-95. The compilation of statistics in machine-readable form, currently available only for external trade, is being extended to all other domains, reducing the work of national reporters and speeding up data acquisition.

284. The situation and outlook documents comprising the *State of Food and Agriculture*, will continue to be prepared for FAO Governing Bodies, other institutions and the general public. Likewise, the compilation, analysis and dissemination of agricultural commodity and commodity trade information will continue to be done at the individual commodity level, and at the aggregate level in collaboration with Member Governments including through their participation in standing committees of FAO and intergovernmental groups, as well as with other commodity organizations. Emerging issues in world agriculture will be covered in the commodity and commodity trade assessments and reported in the *Commodity Review and Outlook*. Such issues include trade liberalization, changes in regional economic groupings, efforts of developing countries to diversify and expand agricultural exports, and the impact of new measures taken to improve the environment and promote sustainable agriculture.

285. The Global Information and Early Warning System (GIEWS) will continue to strengthen its information collection network, including information flows from the field, to improve its analysis of crop conditions using agrometeorological and remote sensing information, and to broaden the use of modern technologies for the analysis and dissemination of information. Such efforts will include the strengthening of national and regional early warning systems. The monitoring of the food situation in the newly independent states of the former USSR will be intensified and the coverage of food commodities, initially focused on cereals, will be expanded. Additional indicators will be developed which reflect impending food supply and access difficulties in order to enhance



the accuracy of assessments and early warning of food shortages. The GIEWS will be used extensively to respond to assessment of the food needs in emergency situations, as required by the UN system.

○ **Programme 2.1.8, Food and Agricultural Policy** <sup>4</sup>

*Overall objective:*

286. *The general objective of Member Nations is to improve their food, agricultural and rural development policy and planning processes, within national domestic and trade policy frameworks and in the context of regional and global perspectives.*

*Specific objectives:*

287. Specific objectives under the programme are:

- (a) to monitor global and regional developments and periodically update assessments of medium- and long-term perspectives, as a framework within which required national food and agricultural policy actions can be identified and assessed;
- (b) to analyze the position of agriculture *vis-à-vis* other sectors of the economy under new domestic and international realities, to explore its "forward" and "feedback" linkages with other sectors of the economy and to explore the ways in which policies need to be modified to deal with overall economic conditions;
- (c) to assist governments in formulating agricultural and rural development policies and strategies, translating them into plans, programmes and projects, analyzing the impact of economic adjustment programmes on sector performance and food security, and ensuring that sustainable agricultural and rural development (SARD) considerations are incorporated in country policy work as follow-up to UNCED and implementation of Agenda 21;
- (d) to improve, through comprehensive training programmes, the capacity of governments in agricultural policy analysis and planning;
- (e) to advise governments on commodity and trade policy developments in international markets, to analyze problems and issues requiring remedial action and, at the national level, to assist governments in assessing and planning their commodity and trade policies; and

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<sup>4</sup> This is also to be seen in conjunction with the overall priority on policy advice covered in Chapter 2.

- (f) to assist governments in implementing national, regional and international food security policies and programmes, in keeping with the broadened concept of food security, and the Plan of Action for Nutrition.

*Programme focus:*

288. This programme spearheads the achievement of sustainable agricultural and rural development (SARD), as a follow-up to UNCED and implementation of Agenda 21. The programme operates through five substantive sub-programmes: global perspective studies; agricultural policy analysis; commodity policies and trade; world food security; and agricultural policy advice and planning assistance. It makes use of a number of coordinating and consultation mechanisms. In particular, country policy work is coordinated through the Steering Committee and Central Task Force for Sector and Structural Adjustment Policy (SSAP) work and will be facilitated by an Agricultural Policy Information System (APIS) specific to country policy work.

289. Guidance to the programme and discussion of the issues and problems to be analyzed and solutions sought, is done by governments themselves through the work of established committees, and through expert consultations and national and regional workshops.

*Main priorities:*

290. The programme will need to maintain an analytical core of well-established activities. Therefore, a number of global perspective studies will continue to be carried out as a basis for formulating policy guidance. Monitoring of international actions, trends and events will also remain essential.

291. The development of a global framework for decision making will require medium- to long-term evaluation and studies. These cannot be firmly established at this stage for the entire 1994-99 period. Nevertheless, these evaluations and studies will keep their due prominence throughout the period. They will include analyzing the longer-term implications of implementing Agenda 21 and the ICN Programme of Action for food and agricultural policies and those influencing natural resource use. They will also include following up on the AT 2010 study, particularly in attempting to fill in analytical gaps or weaknesses the study revealed.

292. The priority given to agricultural policy analysis and planning assistance will include focused analysis of the impact of structural adjustment measures on the agricultural sector, and the incorporation of environmental and sustainable development considerations in agricultural planning and policy analysis. In particular, the programme will continue to meet increasing demand by member countries for assistance in policy advice for sustainable agricultural and rural development (SARD), policy formulation, sector and sub-sector strategy and planning, decentralized planning, and project identification, formulation, monitoring and evaluation. It will also analyze the interactions between agriculture and the environment, and explore the policy interventions to achieve the proper balance among agricultural growth, the protection of natural resources, and the human and natural environments.

293. Work on policy analysis and planning assistance will continue to be accompanied by intensive training efforts. Training at the country and sub-regional levels will be provided to officials from governmental, parastatal and, in some cases, private organizations. Priority will be given to improving applied methodological and analytical techniques for sector and sub-sector analysis and planning and policy impact analysis for which the current CAPPA system (Computerized System for Agricultural and Population Planning Assistance and Training) will be further elaborated and disseminated more widely. Training for decentralized planning, with related generation of up-to-date methodological guidelines, and for investment planning will continue to be delivered in response to requests by member countries. Emphasis will also be placed on incorporating environmental considerations in policy planning and project analysis, on social impact analysis (including gender-based concerns), on agro-processing and related policy and programming implications, and further integration of these with other FAO training activities.

294. The commodity and trade policy activities will continue to stress efforts to improve the functioning of, and access to, commodity markets and to foster greater transparency, growth and stability in international agricultural commodity markets through producer-consumer consultations, primarily under the auspices of the Committee on Commodity Problems and its network of intergovernmental groups. Priority attention will be given to assist Member Governments in implementing the agreements eventually achieved from international initiatives, such as the Uruguay Round of Multilateral Trade Negotiations, the Common Fund for Commodities and UNCED. Increased work will be undertaken on UNCED follow-up in order to promote sustainable development through trade and to make trade and environment mutually supporting.

295. The Committee on Commodity Problems (CCP) and its eleven intergovernmental commodity groups (ICGs) will continue to provide a forum in which ECDC activities are covered, particularly in those ICGs having sub-groups of producing countries. Work related to the Common Fund for Commodities also will include ECDC actions. Greater emphasis will be placed on assisting regional groupings of countries develop their agricultural components, including the harmonization of agricultural policies impacting on trade.

296. Under the guidance of the Committee on World Food Security, activities relating to implementation of the broadened food security concept will continue to be expanded. Priority will be given to assisting governments in the elaboration and implementation of comprehensive food security policies and programmes, emphasizing access to food as well as adequacy and stability of supplies, and to developing practical systems for monitoring and assessing household food security.

297. Albeit at a lower level of priority, continuing attention will be paid to the financing of agricultural development, including analysis of domestic and external resource flows, levels of public expenditure on agriculture and external official and private flows.

298. Although a good part of the food and agricultural policy activities are carried out under the Regular Programme, these are being and are expected to be supplemented by extra-budgetary resources, particularly in the case of the Food Security Assistance Scheme and policy assistance and advice including training.

## ● Major Programme 2.2, Fisheries

299. The long-term orientations in the Strategy for Fisheries Management and Development endorsed by the 1984 FAO World Conference on Fisheries Management and Development, remain valid but they have to be adjusted in a number of areas in order to take into account the results of UNCED and recent events such as the International Conference on Responsible Fishing, the Technical Consultation on High Seas Fishing, and the International Conference on Nutrition. The areas which require increased attention are:

- (a) environmental impact assessment in fisheries and aquaculture (including climate change);
- (b) integration of fisheries in the coastal area management context;
- (c) responsible approach to fisheries development on the high seas and in EEZs;
- (d) fishery product safety and quality assurance, with due attention to the promotion of and collaboration with the private industry; and
- (e) promotion of applied fishery research at national and regional level.

300. The programme will continue to give high priority to key elements of ongoing activities which, *inter alia*, include: fishery policy and management advice; small-scale fisheries and community development, including training and credit; aquaculture development; fishery data and information; promoting the role of women in fisheries; fish trade information and technical advisory services; and safety of fishermen and fishing vessels, particularly in small-scale fisheries. Technical and secretariat support to the FAO regional fishery bodies will be maintained with the intention of making them, where possible and appropriate, autonomous and self-supporting.

### *Objectives:*

301. The following medium-term objectives for the Major Programme in Fisheries were endorsed by the Twentieth Session of the Committee on Fisheries:

- (a) *to promote sustainability in worldwide fisheries and the restoration of world resources to levels consistent with the UN Convention on the Law of the Sea and the recommendations of UNCED;*
- (b) *to assist in strengthening national self-sufficiency of developing countries for the management of their fisheries, the conservation of aquatic ecosystems, and the prevention of environmental degradation;*

- (c) *to develop an International Code of Conduct on Responsible Fishing taking into consideration all biological, environmental, socio-economic, technological and trade issues, and taking into account the Declaration of Cancún and Agenda 21 of UNCED;*
- (d) *to support full participation and equitable sharing of benefits among all who are dependent on fishery activities, in particular small-scale fishing communities and small-scale fish farmers, so as to maximize the contribution of fisheries to rural development;*
- (e) *to assist developing countries in increasing the productivity of their fisheries through the reduction of by-catch and post-harvest losses, the development of products from under-utilized resources, and reduction of production costs;*
- (f) *to promote the integration of the fishery sector (including aquaculture) in coastal area management;*
- (g) *to assist developing countries in fishery product safety and quality assurance and to increase their participation in international trade in fish and fishery products;*
- (h) *to assist in accelerating sustainable aquaculture development; and*
- (i) *to assist developing countries in promoting the role of fisheries in alleviating under-nutrition.*

***Programme focus:***

302. The major programme comprises three technical programmes:

- (a) the programme on *Fisheries Information* covers the collection, compilation, processing and dissemination of fisheries information, data and statistics. In the medium term, the main tasks include the improvement of fisheries information relevant to sustainability in fisheries and aquaculture, and the development of statistical databases for catches in the high seas and in exclusive economic zones, inland waters and aquaculture. The programme is divided into two substantive sub-programmes: *Aquatic Sciences and Fisheries Information*; and *Fishery Data and Statistics*;
- (b) the programme on *Fisheries Exploitation and Utilization* is concerned with:
  - (i) the monitoring of the state of world fishery resources, their environment and their management, and with the development of aquaculture. In this, it aims at improving scientific advice for management and development, restoration of sustainable resources levels, rehabilitation of habitats, development and rationalization of aquaculture; and
  - (ii) the development of fish capture and fish handling technologies for the proper utilization of fishery resources and the promotion of fisheries in alleviating under-nutrition as well as the promotion of international trade in fish and fishery products. The elaboration of an International Code of Conduct on

Responsible Fishing and the monitoring of its implementation is to be among the main tasks. The programme includes four sub-programmes: *Marine Resources and Environment*, *Inland Fisheries and Aquaculture*, *Fish Production* and *Fish Utilization and Marketing*; and

- (c) the programme on *Fisheries Policy* is designed to strengthen national capabilities for fisheries policy formulation and planning and institution-building and to promote international collaboration in fisheries management and development. The integration of environmental and sustainability concerns in policy-making will be a prominent component of this programme. The programme consists of two sub-programmes: *Fisheries Policy and Planning*, which covers policy advice and institutional strengthening and *International Coordination and Liaison* which provides administrative support to the Committee on Fisheries and the FAO regional fishery bodies. It also maintains liaison with other international organizations concerned with fisheries and marine affairs.

***Main priorities:***

**General orientations:**

303. In pursuing the above objectives, the following general orientations will guide the development of programmes and activities under both the Regular Programme and the Field Programme:

- (a) Major Programme 2.2, Fisheries, will continue to give priority to the support of national efforts in the management of EEZ resources and shared stocks, and will thus increase its efforts toward improved statistics, better assessment and management of high seas resources, more efficient industries and free trade. The major programme will also focus, in the medium term, on the elaboration of a Code of Conduct on Responsible Fishing, taking into account biological, environmental, socio-economic, technological and trade issues;
- (b) priority will be given to strengthening national research capacities and the stimulation of regional research programmes. Advice on research activities will be provided in the fields of prevention of post-harvest losses and food conservation, resource conservation and management, fishing productivity, socio-economics and environment;
- (c) activities should recognize the interrelationship between fisheries resources and other aspects of national policies such as food security and nutrition, water and land use, and socio-economic aspirations of rural communities. Therefore, integrated coastal areas management and cross-sectoral planning frameworks should be strengthened to harmonize sectoral development policies and programmes for coastal lowlands and waters. The application of integrated coastal areas management (ICAM) aims at ensuring the

sustainable use of coastal ecosystems by minimizing environmental impacts;  
and

- (d) the FAO regional fishery bodies need to strengthen their role as mechanisms of international cooperation. They have a particularly important role in the management of high seas fisheries and in fishery research cooperation.

#### **Fisheries information:**

304. FAO's achievements in the collection, processing and dissemination of fisheries information, data and statistics need to be consolidated through further efforts to improve coverage of information on aquaculture, sustainable use of fishery resources, particularly those in the high seas, and other subject matters of increasing interest to developing countries.

305. In the field of fishery statistics, growing and changing demands for fishery statistical data will be met by more refined data both at regional and global levels. These should include data on high-seas catches, aquaculture production, inland water production, production and trade of endangered species, and basic economic data.

306. FAO will also enhance cooperation with Member Nations with a view to accelerating the development of national capabilities in the collection, compilation and analysis of fisheries information and statistics and to expanding coordination between FAO and other organizations. This includes coordination with regional fisheries bodies in the Indian and Pacific oceans, to achieve a similar quality in data as that obtained through the Coordinating Working Party on Atlantic Fishery Statistics.

307. FAO's sponsorship and coordination of the Aquatic Sciences and Fisheries Abstracts (ASFA) database, formerly developed through a cooperative network of information centres mostly located in developed countries, will be re-defined. A new programme will be developed, whereby FAO will provide a coordinating role to network arrangements with developing countries, focusing on fishery research information.

#### **Fisheries exploitation and utilization:**

##### **- Resources monitoring**

308. Monitoring of the state of world resources, including those of the high seas, is an ongoing priority. It will require further training in stock assessment and fisheries analysis, including the development of computer software and for promoting cooperation on straddling and shared stocks, particularly through support to regional fishery bodies.

309. In the light of the high priority given by the Organization and by UNCED to the sustainable use of living aquatic resources and the prevention of environmental degradation, the Fishery Resources and Environment Division will need to give more attention to: (a) the collection and analysis of information on changes in the resource base and its biodiversity in marine and freshwater ecosystems due to fish harvesting and other human activities; (b)

the development of methodologies for assessing accumulated contaminant loadings of riverine, lacustrine and coastal waters over the entire watershed; and (c) the insertion of fishery resources management into the integrated coastal areas management (ICAM) plans. The information thus derived would shed light on the potential impact of inappropriate land and water uses on freshwater and coastal marine fisheries, as well as aquaculture.

310. Environmental impact assessments will continue to be built into project formulation in fisheries, as in the other areas of FAO's Field Programme. The programme will promote the involvement of FAO in fisheries resources and environment rehabilitation programmes in highly degraded areas (e.g. in relation to Global Environment Facility (GEF) initiatives).

311. Activities concerning pollution of inland waters and environment protection will need to be intensified, particularly through the FAO regional fishery bodies dealing with freshwater fisheries. There is renewed interest in Europe and Latin America on the effects of human activities other than fisheries (e.g. logging, regulation of water levels) on river basins and their living aquatic resources. FAO will continue collaborating with the countries of the Amazonian Treaty to develop environmentally-sound fisheries practices in this river basin. EIFAC's Code of Practice for the Introduction and Transfer of Marine and Freshwater Organisms, which was designed to reduce the environmental and health risks of such transfers, will be adapted and promoted for adoption by other regional fishery bodies.

312. Applications of the Geographic Information Systems (GIS) technology will be pursued for the planning and management of aquaculture, inland and marine fisheries and aquatic environment, for the forecast and analysis of climate change impacts, for coastal zone and high seas management, as well as for the assessment of the impact of human activities and natural phenomena on watersheds and marine catchment basins.

- Aquaculture

313. Two approaches will be adopted towards aquaculture, in line with the two major development strategies which have emerged.

314. With regard to intensive industrial culture of commercially important species for export, FAO will concentrate on building up national infrastructure to support initiatives that are normally driven by the private sector. It would also continue to give advice and formulate guidelines for the containment of the environmental problems caused by the overly rapid expansion of this sector. Support to governmental facilities for detection and control of fish diseases, identification of better genetic strains and creation of national fish feed industries will form an integral part of this assistance.

315. With regard to rural aquaculture, concentration will be more on the socio-economic constraints that are limiting the successful insertion of aquaculture into the general pattern of agricultural development. The sought after increased competence of governments in strain selection, feed formulation and marketing, and disease diagnosis and treatment can also be applied to the rural sector, as well as the better understanding of the environmental impacts of aquaculture and of other human activities on aquaculture.



316. A sector closely related to pure aquaculture is that of inland and enclosed coastal waters utilized for production through capture fisheries. The demands of freshwater supplies for a range of human activities and on inland coastal waters is leading to a corresponding need to better control the production processes in inland and coastal waters generally, and therefore to an intensification of management. Recent years have seen a rapid expansion of practices such as stocking with culture-based seed, introductions of new species and the parallel pursuit of culture and capture activities in the same water body. These practices will be studied for rationalization and containment of undesirable environmental impacts and for their eventual extension to areas of the world outside their zone or region.

- Fishing technology

317. In the field of fishing technology, in addition to the elaboration of the International Code of Conduct on Responsible Fishing, priority will be given to the use of alternative materials to hardwoods, where these are becoming scarce, in the construction of fishing vessels. Closer attention will also be given to the improvement of the selectivity of fishing gear towards targeted species, discouraging fishing methods which destroy natural habitats and preserving the balance of aquatic ecosystems.

318. Fishing vessel designs need to be improved to meet more stringent recommendations arising from greater awareness of the international community concerning safety of life at sea. Energy optimization will be promoted and standards will incorporate measures to reduce the level of dangerous substances in exhaust gas emission and the reduction in the use of ozone depleting substances in refrigerants by the fishing industry.

319. The Fisheries Department will cooperate with the Economic and Social Policy Department in the preparation of standards and guidelines for manpower planning in the fisheries sector. In like vein, the integrated approach to small-scale fisheries development will continue to be followed, covering aspects such as monitoring and evaluation, credit for fisherfolk and the involvement of women and youth.

320. Services will be maintained under two activities which had the support of UNDP until the end of 1992: Cooperative Use of Vessels for Fisheries Research, Development and Training, and Clearing House for Fisheries Advisory Services in Fisheries Technology and Aquaculture Technology.

- Quality assurance

321. In the area of fish processing, distribution and trade, priority attention will be given to product safety and quality assurance in the light of the expected EEC sanitary legislation for fishery products in 1993, and the planned changes in mandatory fish inspection in the US market. With the expanding contribution of international fish trade to national economies, training and advisory activities will continue to be provided, especially to developing countries, and FAO will need to keep a permanent watch on market access. Collaboration with private industry will be expanded and assistance to the Eastern European fishing industries in their orientation to the market economy will be emphasized.

- Market information

322. The FAO-assisted global network of fish marketing information and technical advisory services, will continue to serve the needs of the fishing industry of member countries. GLOBEFISH, the headquarters-based databank, will remain the hub of the network. It may be noted that INFOFISH which became an intergovernmental organization in 1987, is successfully operating for the benefit of Member Nations in Asia and the Pacific. It is envisaged that the network will become the principal mechanism for the execution of a number of technical assistance projects on fishery commodities to be financed by the Common Fund for Commodities.

- Alleviating under-nutrition

323. The widening gap between supply and demand of fish has resulted in reduced access of lower-income groups in a number of countries to fish and fishery products. Priority will be given to nutritional considerations in fisheries development projects, either directly in using fish to alleviate under-nutrition or, indirectly, by utilizing the proceeds from fisheries to improve food security in fishing communities.

324. Domestic fish marketing will remain a critical aspect of the full utilization of fishery products and requires action to prevent physical and economic losses. National action needs, for instance, to address marketing logistics and operation, particularly in respect of fish supplies for large population centres. Activities will be undertaken on a priority basis to improve the benefits of rural women, where they represent traditional providers of fish supply to urban centres.

**Fisheries policy:**

325. In the expectation of a growing flow of requests, work related to the provision of advice to Member Governments in formulating national policies, plans and programmes for fisheries development, management and investment will retain due prominence.

326. Advisory services will continue to be needed on fisheries management systems including monitoring, control and surveillance of fishing operations by both domestic and foreign fleets. Training in the concepts and techniques of planning and implementing fisheries development, management and investment will be pursued, with improved training syllabuses and material. Studies will also continue to be needed on special problems involved in the development and management of small-scale fisheries, particularly the socio-economic aspects of artisanal fisheries and fishing communities, and the enhancement of the role of women in fisheries development. Priority will be accorded to policy advice regarding the relatively new concept of integrated coastal area management in relation to sustainability in fisheries and environmental protection. Participatory approaches in coastal fishery management will be promoted.

327. FAO regional fishery bodies are recognized as valuable fora for the exchange of experience and information among Member Nations in the development and management of fisheries. These bodies also provide guidance for FAO's work in fisheries. Furthermore,

a number of autonomous international organizations concerned with marine affairs and fisheries have recently been created or are being established: for example, a new tuna management body in the Indian Ocean. FAO will continue its support to inter-country cooperation, toward concerted action and enhanced coordination including the evolution of the FAO regional fishery bodies to become autonomous, self-sustained organizations, where appropriate.

## ● Major Programme 2.3, Forestry

### *Objectives:*

328. The medium-term objectives for the major programme in forestry, as endorsed by the Committee on Forestry (COFO), are:

- (a) *to promote the sustainable management of forest and tree resources and to assist in enhancing their sustained utilization on an environmentally sound basis, while maximizing their contribution to rural and socio-economic development;*
- (b) *to promote the conservation of forest ecosystems and the integration of forests and trees into land-use systems, for sustaining the productivity of land and water resources and the stability of the environment;*
- (c) *to assist in realizing the full potential of forest production - both wood and non-wood - and in increasing its value in order to meet the evolving demands for forest and tree products;*
- (d) *to support full participation and equitable sharing of benefits among all people dependent on forestry activities, particularly as an off-farm source of livelihood for the most vulnerable groups; and*
- (e) *to facilitate the adaptation of forest policies, the launching of national forestry action plans, the strengthening of institutional arrangements, and the development of human resources and research capabilities, with a view to maximizing forestry's contribution to development.*

329. In addition, COFO stressed the importance of work on forest policy formulation, the TFAP, the development of data bases and forestry statistics, outlook studies, market development, the integration of socio-economic and environmental aspects in multipurpose forestry, and women in forestry.

### *Programme focus:*

330. The major programme on forestry is consistent with the orientations of the UNCED Agenda 21 and the "Forest Principles". The primary focus is on assistance to building up capacities to sustain the multiple roles of forests, to enhance their protection and rational

utilization and to support local organizations' and people's participation in forestry activities. Attention is also on the policy, institutional and human resource bases, which are essential for effective country leadership in the sustainable management of forests. The specific problems of countries under structural adjustment programmes or in economic transition are addressed. There is a marked shift towards non-wood forest products and their income-generating potential for rural populations.

331. The programme in forestry involves strong interactions with other aspects of rural development. In particular, links with other major programmes of the Organization and cross-sectoral priorities are ensured, e.g. sustainable agriculture and rural development, land-use planning and geographic information systems, *in situ* conservation of genetic resources, people's participation, policy advice, and development planning.

332. Assistance to the formulation and implementation of national forestry action programmes in all regions receives due prominence in line with Agenda 21, Chapter 11. In this context, TFAP shall remain the main strategical framework and a major instrument for implementing Agenda 21 in the tropical countries. TFAP has been significantly re-oriented in the light of experiences and as a result of the revamping process. TFAP remains an unprecedented cooperative undertaking by the tropical countries and the international community, with shared efforts between technical and financial institutions active in forestry. FAO's role is to provide technical support to national actions, hence increasing the effectiveness of TFAP implementation. It is also to facilitate international cooperation through liaison and provision of information and to assist in mobilizing international support to countries implementing their national action plan. TFAP receives technical support from each of the three forestry programmes which direct a significant share of activities and resources to this purpose.

333. The major programme on forestry consists of three programmes as follows:

- (a) the programme on forest resources and environment deals with basic activities of survey, conservation, management and creation of forest and wildlife resources for development and conservation purposes. It provides information on the state of forest resources and disseminates technical approaches for their sustainable management. One sub-programme is devoted to the coordination of TFAP;
- (b) the programme on forest products is concerned with all products from forests and trees and with primary processing industries. It covers forest operations for harvesting raw materials and for processing and marketing wood-based forest products such as fuelwood, sawnwood, panels, pulp and paper and chemical conversion of wood, as well as non-wood forest products. Key aspects are the generation of income and poverty alleviation among forest-dependent populations, the effective utilization of the forest production, including non-wood forest products, and the reduction of negative environmental impacts of forest operations; and

- (c) the programme on forest investment and institutions is geared to strengthening the institutional framework and improving the socio-economic impacts of forestry activities and to providing the policy and planning advice related to the forestry sector. This programme carries the main responsibility for work on forestry policy, institutions, research and training, economics and statistics, sectoral planning, and community forestry.

***Main priorities:***

**General orientations:**

334. In pursuing the above objectives, the following general orientations will guide the development of programmes and activities under both the Regular Programme and the Field Programme:

- (a) actions on conservation, development and sustainable utilization of resources should be complementary. Thus, resource conservation measures should be judiciously combined with the economic production function of forestry and with efforts to strengthen its economic base;
- (b) all activities and projects should recognize the complex interplay of forests, trees and wildlife with food security and nutrition, farming systems and land uses, and take account of the socio-economic fabric of rural societies; and
- (c) securing the sustainable management and utilization of forests requires comprehensive approaches to the multiple functions and interests involved; the participation of all major actors, public institutions, private sector and local communities must be encouraged.

**Forest resources and environment:**

335. The need to manage sustainably most of the remaining accessible natural forests and of the rapidly growing areas of forest plantations implies increased efforts to convince the owners - be they states, communes, local communities, private companies or individuals - to bring forest resources under sustainable management practices and to re-invest a greater part of forest revenues into such measures. Geographical priority areas will be the tropical rainforests and the woodlands of the dry tropics. Other forest areas and fragile ecosystems, so far neglected, will also receive attention.

336. Global forest assessment and monitoring remains a key priority, in order to pursue the systematic observance of qualitative and quantitative changes in forest resources and the provision of objective and reliable information. World Forest Resources Assessments had been conducted in 1980 and in 1990. Arrangements will be made to allow regular assessment and reporting on the state of world forest resources. Support will be given to building country capacities to generate the necessary information on their own forest

resources. This, in turn, will enable the improvement of the coverage of forestry in FAO databases, including WAICENT, and overall land use information.

337. Forest plantations, including the planting of multiple purpose trees, are particularly important in relation to the restoration of degraded lands and the "greening" of the world. Assistance to member countries will focus on tree planting and plantation establishment, with due consideration to social and environmental aspects and overall silvicultural management. Matching species and provenances with sites will continue. Emphasis will also be placed on high-density short-term rotation plantation for wood and fodder production.

338. With regard to the provision of reproductive materials, priority will continue to be given to supporting national institutions in the collection, characterization, improvement, exchange, *in situ* and *ex situ* conservation of forest genetic resources, particularly those of multipurpose tree species of the dry and sub-humid tropics. Emphasis will be placed on the application of biotechnology to secure high quality materials and to increase their productivity. A strong component of TCDC will encourage and support networking. It will focus on species which are locally known for their environmental, social and economic value, including multipurpose woody species of importance to local communities.

339. The programme will continue to address the role of forests and trees in diversified and sustainable mountain economy systems, with particular emphasis given to the quantification of the economic and financial benefits, participation of upland communities and the design of appropriate institutional mechanisms. The programme will also support initiatives in the framework of the Ministerial Conferences on the Protection of Forests in Europe. The regional and sub-regional networks on watershed management in Asia and Latin America and the Caribbean, and to be promoted in Africa, will foster TCDC activities.

340. In view of the contribution of wildlife to food security and rural development, priority will be given to disseminating knowledge on wildlife and protected area management with special emphasis on: safeguarding biological diversity; participation of local people; the collection of statistics on wildlife and wildlife products. The contribution of wildlife to rural development will be analyzed and game ranching and farming technologies disseminated. Three FAO regional bulletins on wildlife and protected area management will continue to be issued, and support provided to regional networks and seminars.

341. In the field of arid zone forestry and desertification control, focus remains on under-utilized, multipurpose tree species/genera and the rehabilitation of fragile ecosystems. Knowledge will continue to be disseminated on windbreaks, shelterbelts and live fences. Support will be provided to sub-regional and regional arid zone forestry networks in the Mediterranean region and in Africa south of the Sahara.

342. The integration of trees and shrubs in farming systems will be sought to help restore soil fertility, check wind and water erosion, provide additional fuel and fodder and diversify income sources. Information will be disseminated on successful agro-forestry systems, land evaluation for agro-forestry and the economics of agro-forestry systems. Given the rapid pace of urbanization in many regions, as highlighted by the Tenth World Forestry Congress,

urban and peri-urban forestry systems for production, amenity and environment protection will receive increased attention.

#### **Forest products:**

343. FAO will focus on technologies designed to address both environment and efficiency aspects of forest products harvesting and utilization, while at the same time increasing the contribution of forestry to income generation and poverty alleviation. Assessments of the tropical forest area harvested will be carried out on a yearly basis, also addressing the forest residues generated, and the damage associated with forest road construction and harvesting operations. The environmental aspects of forest and timber utilization will also receive due attention. Priority will continue to be given to increasing resource utilization in both volume and value through harvesting and processing of non-wood forest products, particularly by medium- and small-scale enterprises.

344. The special problems which countries face in seeking balance between the public and private sectors, with an increasing role of the latter in forest operations on public forest lands, require attention, as well as the situation of countries in transition, in particular in Eastern Europe.

345. Training will be a central component, covering subjects ranging from planning and implementing forest harvesting operations and forest industries, through means of improving operating methods and machine operation, to carrying out effective market development activities. In relation to efficiency of forest utilization, progress in supply and use of forest and industrial residues as well as alternative raw materials, will be monitored. Emerging processing technologies will be analyzed, with special attention to environmental impacts and biotechnologies. Publications and workshops will disseminate related information.

346. As stressed above, non-wood forest products, which have been shown to have a high development potential, will receive higher priority. The programme will provide advisory services to Member Governments regarding methods for identification of promising products, feasibility analysis, technology assessment for processing and packaging and market development. Data bases on a range of products from vegetal and animal sources, will be maintained for access by concerned organizations. The development of these products requires a multidisciplinary approach, and methodologies to assess the resources and the potential for sustainable supplies. Support will also need to be provided to strengthening institutional capacities to deal with non-wood forest products.

347. The effective mobilization of the energy potential of woody biomass will remain an important area of work, particularly on efficient and more environmental-friendly wood energy utilization systems and conversion technologies.

348. With regard to international trade in tropical forest products, FAO will continue to collect and disseminate statistical data and analytical information concerning trade flows and their evolution including non-wood forest products and prospects for future developments.

## Forest investment and institutions:

349. Strengthening national capacities for the formulation of policies and plans and improving the institutional and human resource base to implement forestry policies and programmes, will continue to be of high priority. Advice will build on the continuing analysis of the policy and institutional implications of the multiple roles of forestry and of its contribution to sustainable development, locally, nationally and globally. The development of institutional instruments will need to be geared to the active and sustained involvement of rural people, local organizations and the private sector. Support to national research, training and education institutions will be strengthened, mostly through TCDC at sub-regional, regional and interregional levels.

350. The emphasis of policy analysis work will shift toward "upstream" activities. This will build upon the assessment of the impact of forestry policies and understanding the issues and opportunities which forestry policymakers face in evolving national and international contexts. Regional surveys of forestry policies in Africa and in Latin America are planned, following those already completed for Europe, the Near East and Asia and the Pacific.

351. In the work related to strengthening the institutional framework for forestry, emphasis will shift in line with the changing roles of public administrations, the private sector and local organizations in forestry activities. Special effort will be required to assisting countries in transition in reorienting their forest policies in line with their new economic orientation, without weakening the multiple functions and roles of their forests. FAO will promote appropriate institutional arrangements for the transfer of responsibilities for forest management and utilization to local communities and to private enterprises, in countries in which a process of privatization or transition to a market economy is under way.

352. To further strengthen capacities for local initiative and people's participation in forestry activities, attention will continue to be paid to assessing the relevant factors that need to be considered prior to programme development: e.g. how pre-existing local organizations, incentives and rules can both negatively and positively affect forestry activities. Those investigations will be combined with the development of operational guidelines for the design of locally-specific programmes. Decentralized planning will remain a major medium-term focus, as participatory planning and communication approaches will be needed to strengthen the position of local communities and to incorporate their knowledge and concern into national planning strategies. New themes will include nutritional and environmental concerns into community forestry activities.

353. FAO will continue to attach high priority to its role in outlook studies and as the international source of forestry statistics. Such information is essential for policy and planning of the forestry and forest industry sector, for the formulation of national action plans and for their integration in national economic development plans. Basic data will be maintained in the framework of WAICENT. Analytical studies will cover supply and demand of forest products. Training for strengthening country capacities in assembling and processing forestry statistics will continue to be a major activity.



354. Statutory bodies will continue to serve as fora for policy debates, as well as technical exchanges. *Unasylva*, the quarterly international journal of forestry and forest industry, will continue its focus on the central issues confronting forestry and forest industries within the broader context of rural development.

*External cooperation:*

355. Liaison and cooperation will continue to be maintained with a wide array of international organizations, as indicated in the previous Medium-term Plan. A new development is the establishment, as part of the CGIAR, of the Centre for International Forestry Research (CIFOR). FAO is represented on the board of this Centre, with which close and continued cooperation is foreseen.

## CHAPTER FOUR: REGIONAL ISSUES AND PRIORITIES

356. *Excerpts of the regional section of the last Medium-term Plan were submitted to the cycle of FAO Regional Conferences during 1992, in order to update the respective perceptions of the main regional issues and priorities. In the case of the Regional Conference for Europe, at the request of a number of Member Nations in the region, a considerably expanded document was prepared taking account of the rapidly evolving context of demands, especially from the countries in transition.*

357. *The Regional Conferences have, by and large confirmed the continued validity of the assessments of regional settings, as far as FAO's mandate is concerned, and of proposed priorities at regional level. These are reproduced below, with appropriate revisions. It is recalled that for the sake of avoiding duplication, the text is intentionally focused on planned activities through the established regional mechanisms of FAO (i.e. the Regional Offices and Joint Divisions with the UN Regional Economic and Social Commissions).*

### ● Africa

#### *The regional setting:*

358. Recent events, including the worst drought in living memory in Southern Africa, have confirmed the extreme vulnerability of the African Region in addressing its economic and social development problems. The agricultural sector, in particular, continues to face severe obstacles stemming from the erratic climate, rapid population growth, soil degradation, the decline of plant cover and the impact of natural disasters. Development efforts are also largely frustrated by political strife, persistently unfavourable terms of trade, onerous debt servicing and limited development assistance.

359. The agricultural scene throughout the region continues to present a number of daunting challenges:

- (a) the overall poor quality of soils, although substantial land resources could be available for agricultural expansion. However, comprehensive and reliable information is still lacking on their nature and distribution, more especially as regards wetlands;
- (b) as a possible response to erratic rainfall and recurrent drought, irrigation expansion is hampered by high initial and recurrent costs, lack of trained manpower and adequate extension systems, and the inefficient organization and management of irrigation schemes. Less than 3 percent of arable land in sub-Saharan Africa is under some form of irrigation. Development is

also hampered by inadequate knowledge of potential expansion areas, particularly as regards flooding or ponding conditions;

- (c) crop yields are generally very low owing to declining soil fertility, soil degradation, pest infestations 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.. Moreover, research and extension structures regarding food crops, especially staples such as sorghum, millet, and roots and tubers, are still relatively weak. Further, labour productivity in agricultural production is low and is being increasingly threatened by disease;
- (d) in the face of high population growth, the already low animal production is increasingly falling behind demand. Tsetse infestation still covers one third of the land surface of Africa in spite of several years' control efforts. Other major constraints to animal production are inadequate feeding practices and the prevalence of infectious and other diseases such as parasitic diseases, tick-borne diseases and African swine fever. For instance, outbreaks of rinderpest still occur in Eastern Africa, continuing to pose a threat to the rest of the continent;
- (e) despite technological advances, these have not yet led to rapid progress in food and agricultural production throughout tropical Africa. The limited spread of improved technologies is due to the fact that they have either been too expensive for small-scale farmers or difficult to integrate in local farming systems;
- (f) agro-industrial activities are subject to a high degree of external dependence. Those 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 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 communications systems;
- (g) growth with equity and poverty alleviation remain largely elusive in most rural development schemes. In fact, beyond problems of production, rural areas are still beset by problems of unemployment, inadequate education, social and cultural services, and more generally, the lack of technical and economic opportunities, leading to alarming rural/urban drifts of mostly male migrants. The number of female headed rural households is increasing. There are also rural development concerns specific to Africa such as complex issues of settlement and land tenure, the rehabilitation of drought-affected areas, the incidence of large numbers of refugee populations, the settlement and/or development of zones recently freed from human or animal diseases;

- (h) the status of nutrition remains grossly inadequate. Beyond known problems of erratic food supplies, unbalanced diets, man-made calamities and civil strife, many countries are also pursuing adjustment processes, often leading to cuts in government subsidies, general declines in purchasing power and in social services. The lower-income groups continue to be the most adversely affected;
- (i) agricultural policy analysis and planning in African countries is seriously handicapped by the lack of reliable and timely agricultural statistics and information. To varying degrees, African food and agricultural statistical systems suffer from poor quality and unreliability of data; long delays between data collection, analysis and final dissemination; and limited relevance of available statistics to the needs of users. Moreover, national data collection activities tend to be fragmented and uncoordinated;
- (j) for Africa as a whole, fish production increased slowly until 1988; since then a decline has been recorded. Nevertheless, exports have been increasing and, in value terms, Africa is now a net exporter of fish products. However, in quantitative terms, imports exceed exports. Given the population increase, availability of fish *per caput* has declined. Fish resources, both marine and inland, have been close to fully exploited. However, the recent demise of several centrally-planned economies in conjunctions with political changes in South-West Africa has meant a let-up in the exploitation of some of the fin-fish stocks off the West Coast of Africa. Inshore and inland resources are heavily exploited; effective management regimes are urgently needed in several countries to prevent a run-down of stocks; and
- (k) desertification in semi-arid and sub-humid lands and the destruction of tropical high forests remain key problems of the region, as highlighted in the UNCED process. In fact, more than one third of Africa's continental mass is at present under threat of desertification. An estimated 5 to 7 million hectares become unproductive every year. Despite Africa's endowment of well over 200 million hectares of closed forests, about 1.7 percent is destroyed every year, without replacement or replenishment.

*The focus of FAO's work:*

360. Over the medium term, FAO will continue to respond to the urgent demands of its African member countries in connection with: environmental and resource management for sustainable development; adjustment and reform of domestic policies and programmes for macro and sectoral development; and the strengthening of the technical, infrastructural and institutional base for rural development. FAO will continue to extend close cooperation to the Organization of African Unity (OAU) and the regional and sub-regional economic groupings and other intergovernmental organizations, and thereby strengthen economic and technical cooperation among African countries.

361. In the area of natural resources, this assistance will take multiple forms including: formulation and implementation of specific projects, policy advice, strengthening of existing technical cooperation networks, dissemination of information for improved land and water management and efficient fertilizer use. Inventories and evaluation of soil resources will be undertaken within the framework of the International Scheme for the Conservation and Rehabilitation of African Lands (ISCRAL), which was endorsed and re-emphasized by the Sixteenth and Seventeenth African Regional Conferences respectively. Issues of soil fertility depletion at national and sub-regional levels, and of wetland development and management will receive due prominence. Irrigation expansion and the promotion of small-scale farmer-managed projects will be pursued in the framework of the International Action Plan for Water for Sustainable Development.

362. With regard to crop production, priority will be given to sustainable production systems, including Integrated Pest Management (IPM), for crops with a history of pesticide abuse such as vegetables, cotton, oil palm and cocoa. Work on crop/livestock/forestry systems will address key aspects such as: integration of production, processing and marketing; striga control in cereals; the implementation of the International Code of Conduct on the Distribution and Use of Pesticides; and improved plant quarantine measures. Promotion of rural-based agro-industries will aim at income-generating and rural employment opportunities, and reduction of wastage of agricultural produce.

363. Over the medium term, support will continue to be given to the Pan-African Rinderpest Campaign and other important animal disease programmes covering trypanosomiasis, bovine pleuropneumonia, tick-borne diseases, intestinal and external parasites, foot-and-mouth disease, dermatophilosis, African swine fever and Newcastle disease in village chicken. Extension packages will be designed to improve the productivity of traditional livestock farmers, particularly in drought-prone areas. The strengthening or rehabilitation of animal health services, will also receive priority attention, as well as the protection of endangered cattle and small ruminant breeds.

364. With regard to social issues, people's participation in rural development will be encouraged through further awareness-building and training activities. Non-governmental Organizations (NGOs) will be a major partner in grassroots-oriented development initiatives. Assistance will continue to be given to agricultural cooperatives, farmers' associations and informal groups in their organizational efforts. Research needs in the areas of traditional land tenure practices and production systems will also be identified. Women's major contributions to agricultural production will require the sustained introduction of gender concerns in training programmes.

365. Nutrition-linked activities will be expanded as mandated by the ICN and comprise: in-service training courses for food and nutrition planners; support to research in national institutions and universities; technical backstopping to member countries in the application of food standards and the development of food quality control infrastructures; support to technical cooperation networks on food standards and food quality control; development of formulae for locally-based weaning foods; and more generally, policy advice on food and nutritional issues.

366. Statistical programmes over the medium term will continue to address the development and improvement of national agricultural statistical systems through increased efficiency and intensity of agricultural statistical operations; short-term on-the-job training activities in data collection at the local level; innovations in methods of data collection, especially on estimating acreage and production under mixed cropping conditions in the African context. FAO will continue to convene sessions of the African Commission on Agricultural Statistics to enable member countries to exchange experiences in agricultural statistical data collection, as well as harmonizing their plans.

367. Strengthening of national capacities for agricultural policy analysis and planning, as well as related skills and tools, remains a permanent concern. Assistance will cover the impact of structural adjustment programmes and the design, implementation and monitoring of sectoral programmes and projects to accompany these programmes. The technical cooperation network on agricultural project management (AGPROMAN) will provide a vehicle for improved agricultural and rural development programmes. In response to the commitment to economic and technical cooperation among African countries, embodied in the foreseen establishment of an African Economic Community (AEC) and related activities, support will be given to the African Economic Community development process, through assistance to the OAU and sub-regional organizations dealing with food and agriculture. Assistance will also be given to the OAU in the development and implementation of a Common African Agricultural Programme (CAAP). The common thread of these assistance activities will be capacity building for programme development and implementation.

368. In the fisheries sector, continued emphasis will be placed on strengthening the collaboration with, and amongst, appropriate sub-regional and regional intergovernmental bodies with interest in fisheries. Priorities will focus on enhancing the capability of national administrations to develop and implement methodologies for fisheries management and development. Part of this task will be carried out by: enhancing cooperative applied research (through networks of scientists dealing with: (a) aquatic ecosystems; (b) conservation of biological diversity; (c) integrated coastal area management; (d) commercial aquaculture; (e) aquaculture for local markets); by introducing low-cost systems for monitoring, control and surveillance of marine fisheries, and by upgrading the capability to exchange fishery information (including that related to fish products and markets) on a regional and sub-regional basis. Also, FAO will assist countries going through structural adjustments of their economies to adapt their fishery administrations to the new political realities.

369. In the forestry sector, priority will be given to three key aspects: integrated agro-forestry systems, the promotion of popular participation in forestry management; and promotion of regional information networks. The implementation of the Tropical Forests Action Programme (TFAP) will keep its prominence on the forestry development agenda of the region. National and regional TFAP activities will enhance the region's institutional capabilities, and will be interfaced with the International Scheme for the Conservation and Rehabilitation of African Lands (ISCRAL). Greater attention will be paid to forestry research to make it more responsive to effective regional needs.

## ● Asia and the Pacific

### *The regional setting:*

370. The Asia and Pacific Region accounts for 53 percent of the world's population, more than 70 percent of the world's farming households, about 75 percent of the world's malnourished people, but only 27 percent of the world's arable land. It is the fastest growing region economically. Yet, half of the world's poor still live in this region and more than 300 million people remain ill-fed. In far too many countries, life expectancies are well below levels in developed parts of the world.

371. Developing countries of the region have strived hard to increase their agricultural production and some countries did achieve relatively high growth rates. In aggregate terms, cereal production grew in the eighties at a rate of almost 3 percent per year, thus pulling ahead of the region's population growth, and outstripping by more than 1 percent the average growth in the rest of the world. Four out of six major rice deficit countries succeeded in reaching self-sufficiency. Increased food production has been achieved mostly through intensification of production on high potential land area, using yield-increasing technologies and inputs. However, in the subsistence agriculture sector and low potential areas, farmers continue to drift into ecologically fragile areas.

372. Continued population growth and rising expectations are posing limits to sustainable development. Intensification of production has brought environmental penalties like waterlogging, salinity and sodicity. Soil has been "mined" without adequate replenishment of removed nutrients. At the same time, encroachment into receding forest land and common property resources has led to environmental degradation through "erosion" of both soil and genetic resources. Technology for increasing productivity on a sustainable basis in the uplands or the rainfed low potential areas are not yet available. Scarce fertile land is also under threat from rapid urban expansion in many countries. Activities that will promote complementarity between growth in production and protection of the environment must be given due attention in efforts to modernize traditional agriculture.

373. As there is very limited scope for horizontal expansion of cultivable land, the growing demand for food will continue to be met through increased productivity and cropping intensity. The still low average yields in several countries of the region call for determined policies and measures for research and development of high productivity inputs like hybrid seeds and transfer of technology among countries. There is need for conservation and exchange of germplasm, production and sharing of quality seeds and planting materials both within and outside the region. Research and development efforts must be directed more effectively to rainfed areas and poor people's crops like tubers and pulses. In many countries, excessive post-harvest losses in cereals and horticultural crops lower net product availability and farm income. Thus, there is a need to improve post-harvest technologies. Integrated pest management, with emphasis on pest-resistant varieties, biological control measures and botanical pesticides especially for rice, vegetables and cotton, and the implementation of plant quarantine measures and the international code of conduct for

pesticides need to be promoted. Integrated nutrient management is also vital for small farmers with limited access to external and expensive inputs. The recently increased use of farm machinery and implements due to diversification and intensification of agriculture, has revealed serious shortages of trained manpower and the lack of national policies for selective mechanization. There is also a widespread need for enhancing rural employment and income through the development of agro-industries. In these diversification and intensification efforts, the capacity of farmers to choose the right mix of enterprises suited to their needs and resources and to manage the complex decisions involved, is a key factor.

374. Development of livestock in the region is constrained by the poor quality of available feed and feeding practices, low genetic potential of indigenous animals and poor animal health conditions. There is need for control and eradication of animal diseases like foot and mouth, rinderpest and poultry diseases. Lack of appropriate pricing policy and price support to protect small producers in many countries of the region is another constraint to livestock production.

375. Recent advancements in the field of plant biotechnology offer enormous potential for increasing crop productivity and increased tolerance to biotic and abiotic stresses leading to sustainable agriculture. It is necessary to conserve the many valuable genetic resources that originated from the region. Though some countries have made considerable progress in these areas, many other countries need support for infrastructure development, human resource build-up and mechanisms for appropriate technology transfer. Many rice-growing countries need assistance for technology transfer on hybrid rice production. Use of biotechnology for multiple disease and pest resistance will need to be promoted. FAO must respond to these needs through its catalytic role in technology generation and dissemination.

376. In countries where population growth continues to outpace growth in production and infrastructure development, increasing landlessness and lack of income opportunities are forcing the poor to drift into the cities in large numbers. To stem this, the creation of rural employment opportunities should be pursued forcefully, e.g. by organizing small farmers into production groups, both for on-farm and off-farm activities. Also, improved technology will only pay off for the small and marginal farmers or the rural poor, when matched by institutional reforms in land tenure, taxation, inheritance laws, improved credit and marketing facilities. Building on the current awareness of the need for agrarian reform, national authorities need to be further sensitized to the fact that equitable access to resources and people's participation in development are prerequisites for effective poverty alleviation and, by the same token, for sustainable development. Capacities in monitoring and evaluation of rural development, especially rural poverty alleviation programmes, need to be further strengthened through more reliable data and refinement of socio-economic indicators. Gender disaggregation is essential to measuring progress, in the light of evidence of "feminization" of poverty. Data bases on women in agriculture need continuous upgrading and refinement and a fresh look needs to be taken at gender-based discrimination on land tenure or in inheritance law.

377. In some countries, the focus of agricultural programmes has been shifted from self-sufficiency to diversification and nutritional adequacy. That trend needs to be reinforced in formulating agricultural sector strategies. Problems of food quality control are also widely



prevalent. Inadequate food safety and control measures and lack of harmonization of food standards adversely affect the food trade, both intra-regionally and abroad, and need to be corrected.

378. Most countries in the region have improved their food and agricultural statistical systems, by refining census and survey methodologies, and making use of computer facilities. However, the timely availability of reliable data for policy analysis and monitoring of development programmes is still a problem. FAO can assist through comprehensive regional data bases in the framework of WAICENT to serve the needs of food and agricultural planning and policy formulation.

379. There is a general need for strengthening national capabilities in policy formulation, programme analysis and in the integration of environmental issues and accounting into the planning process. Requests for support in refining policy parameters and options *vis-à-vis* structural adjustment or sector loans from the multilateral investment banks are increasingly frequent. In particular, countries in transition from centrally planned to market economies need assistance in macro-economic policy and institutional reforms. Promoting marketing facilities for small producers is another imperative, to facilitate the "graduation" of peasant farmers from subsistence status to effective actors in the market economy. Given the diversity of levels of development and underlying complementarity among countries, their growing interdependence is fully recognized by policy-makers. FAO should stand ready to strengthen regional/sub-regional cooperation initiatives in its fields of competence.

380. With regard to fisheries, fish stocks in most inshore waters of the Asia and Pacific Region are heavily exploited. Productive habitats have often been degraded by improper fishing methods and pollution. This not only has repercussions on the sustainability of fishing effort, but also severe socio-economic implications of rural impoverishment and conflict between large-scale and small-scale fisheries. Stocks in inland waters are also severely depleted in many countries, due to the degradation of freshwater habitats and increased production. As subsistence fishing activities provide a significant part of the animal protein supply of farming families throughout the region, decreasing availability of fish can have a serious nutritional impact and should be reversed.

381. Despite its considerable expansion, aquaculture development is generally constrained by problems of inadequate fish seed and fish feed, the incidence of disease and the lack of engineering expertise. In regions of intensive development, problems arise with water management and disease outbreaks. Moreover, conversion of coastal mangroves and heavy pollution release from intensive shrimp/fish farms lead to extensive destruction of vulnerable ecosystems. Information on socio-economic implications of aquaculture development and on the marketing of its products, also needs to be greatly improved. Also, seafood exports, which are a source of substantial foreign exchange earnings for the developing countries, are adversely affected by inconsistent product quality.

382. The region faces unprecedented environmental problems due to rapid deforestation and forest destruction by indiscriminate logging, encroachment and unplanned settlements. Current estimates indicate that the rate of deforestation has reached about 4.0 million ha. (1.1 percent) per annum, and is largely linked to population growth and poverty. Losses are

heavily concentrated in India, Indonesia, Philippines, Myanmar and Thailand. Thus, arresting deforestation, rebuilding forest resources and protecting the legitimate rights of people living in and around forests have become major policy concerns.

*The focus of FAO's work:*

383. Based on most recent discussions in the concerned FAO and other regional fora, a common denominator of regional requirements on which FAO's assistance should concentrate in the medium term, can be identified as follows:

- (a) to evolve strategies for increasing productivity, as well as cropping intensity, in order to meet the increasing demand for food on a sustainable basis;
- (b) to foster plant biotechnology for increased resistance to biotic and abiotic stresses and improved productivity;
- (c) to strengthen national capabilities for the rational use of plant, animal, land, water and farm resources, including production inputs, according to SARD precepts;
- (d) to provide assistance/guidelines on formulation and implementation of policies for the prevention of food losses, and promote rural based agro-industries development and effective mechanization policies;
- (e) to promote national/regional trade and retail marketing of live animals/animal products, and expand animal disease-free zones in the region;
- (f) to improve equity by raising the incomes and living standards of the rural poor in general, and women in particular, through tailored support measures, technology generation and transfer, and institutional reform;
- (g) to implement the ICN Action Plan by reducing malnutrition in developing as well as developed countries, achieving nutritional balance through dietary guidelines, and improving food safety and standards for local consumption and trade;
- (h) to strengthen food security and improve food marketing, including regular monitoring and analysis of the food and agriculture situation;
- (i) to assist in policy-making, sector review, programme formulation and analysis of the impact of structural adjustment; to monitor and evaluate regional economic cooperation initiatives and review developments in commodity trade, intra-regionally and outside the region;

- (j) to improve national capabilities in fish stock assessment and management; and expand aquaculture production with special attention to environmental and socio-economic impacts;
- (k) to support TFAP implementation and stem the rate of deforestation through improved monitoring and assessment systems, forestry education and research, and promotion of community forestry including agro-forestry; and
- (l) to strengthen/backstop technical networks/regional commissions and similar bodies already established under the framework of FAO.

384. Policies on agricultural and rural development (including forestry and fishery aspects) will be monitored by the FAO Regional Conference and regional technical commissions. More focused issues will be addressed by various specialized networks, established and serviced by the Regional Office for Asia and the Pacific (RAPA). Besides these, cooperation and participation of member countries will be sought through regional expert consultations/seminars/workshops and training in various sectoral programmes. The recommendations of various sessions will be brought to the attention of national authorities for implementation. Joint meetings with other UN and intergovernmental bodies will continue to be held to provide opportunities for exchange of views/information and debate on policy issues concerning agricultural and rural development.

385. Building on earlier positive results, intergovernmental consultations on follow-up to WCARRD will continue to be held, with focus on strategies for sustainable agricultural and rural development. Support to small farmers development programmes, particularly rural development projects, and promotion of agricultural cooperatives through the newly-established regional network, will continue to feature prominently. As a medium-term priority, data bases reflecting women's work in agriculture and rural development, and on agricultural cooperatives will be updated/refined.

386. As a follow-up to the ICN Declaration and Plan of Action, FAO will assist member countries of the region in: preparing or improving national plans and policies; mobilizing financial resources; training personnel; building or strengthening national and regional institutions for specific research, information dissemination and implementation of nutrition programmes.

387. Support and technical backstopping will be provided particularly in formulation, operation, monitoring and evaluation of projects, especially for rational use of the region's limited land and water resources. Training courses, through TCDC approaches, will be held on various aspects of food and agriculture development.

388. Technical assistance and training will continue to be provided to strengthen national capabilities in food and agricultural policy formulation and implementation. Where appropriate, this training and technical assistance will be organized within the framework of sub-regional arrangements, such as ASEAN, dealing with: food and agricultural sector planning; commodity policy at country level, emphasizing productivity improvements, crop

diversification, farming systems development, trade expansion and intra-regional policy harmonization; and food and agricultural marketing and trade infrastructure and services. The LDCs and small island countries of the Pacific sub-region will be more particularly assisted in the identification and preparation of projects, mobilization of funds for investment and monitoring and evaluation of projects.

389. Regional collaboration in fisheries management and aquaculture development will be further promoted through the Indo-Pacific Fishery Commission (IPFC) and the Indian Ocean Fishery Commission (IOFC) and their subsidiary bodies. Post-harvest technology will be developed primarily through a network of Asian fish technology institutes. The establishment of the Indian Ocean Tuna Commission is expected to be completed.

390. Forestry education and forestry research will continue to be of central concern to the Asia-Pacific Forestry Commission. Through the Forestry Research Support Programme for Asia and the Pacific (FORSPA), institutions concerned with forestry research will be supported in terms of technical as well as financial inputs. Collaboration with ITTO will be pursued in order to find appropriate solutions for sustainable management of tropical forest resources.

391. A number of regional bulletins such as *Tigerpaper* (with special focus on national park and wildlife management), *Rural Energy* (dealing particularly with non-conventional sources of energy), *Asian Livestock* (highlighting the latest developments in the region), *Farm Management Notes* (focusing on upland and rainfed areas), and technical publications on plant protection, land/water management, food security and food marketing, etc., will continue to assist in the dissemination of information for planners and decision-makers of the region.

392. Through the newly-established Asia-Pacific Association for Agricultural Research Institutions (APAARI), effective linkages between research institutions will be developed, in order to build both infrastructure and human resource capabilities in areas of utmost priority.

## ● Europe

### *The regional setting:*

393. The European Region offers a particularly wide range of natural conditions, and until recently, different approaches to economic development particularly related to agriculture. While some groups of countries have experienced considerable expansion in levels of production of basic foods, other areas have not achieved the same degree of food security and have difficulties in attaining the levels of production and efficiency commensurate with the resources engaged in agriculture.

394. Large contrasts exist in production systems. In many countries, the food and agriculture system represents a capital intensive, high technology sector of the economy significantly interacting with other national economies. In these instances, agriculture is heavily influenced by such external factors as money supply, interest and exchange rates.

395. In most of Western Europe, agricultural support policies have stimulated levels of production exceeding domestic requirements at prices which have led to large subsidization in export markets and to trade conflicts. At the same time, certain objectives such as farm income support have only partially been achieved, particularly in those areas where high technology capital intensive production systems have not been introduced. In the same sub-region, there has been increased awareness of the need for policy reform with greater emphasis placed on achieving more balanced rural and regional development, protection of rural values and an integration of environmental issues into the development process.

396. During 1992, the European Community embarked on a reform package for its Common Agricultural Policy. The proposed reforms, which address some of the above-mentioned problems confronting Western European agriculture, are based on: price reductions; supply control measures in the form of set-aside requirements and cuts in production quotas; compensation for production cuts through direct payments; and measures to encourage less intensive and more environmentally friendly production methods. These reforms are to be phased in over a three-year period, ending with the 1995-96 marketing year.

397. There is another part of Western European agriculture, notably that located in mountainous or remote areas and mainly consisting of small holdings, which does not fall in the high technology and capital intensive category. It is precisely the co-existence of these two types of farming systems, which is at the root of some of the difficulties encountered in efforts at policy reform.

398. Most of the former centrally-planned economies, in Central and Eastern Europe, are undertaking major reforms of their political and economic systems, including the agricultural, fisheries and forestry sectors. The scope and extent of these reforms are not yet firm in most instances, but they are bound to have far-reaching implications on how farming, fisheries and forestry is organized in these countries, with consequent repercussions on FAO's role in providing advice and technical assistance.

399. These changes could ultimately result in considerable increases in Eastern European agricultural output, productivity and export capacity, given present gaps in yields and performance between these countries and those of Western Europe. In any event, a major issue will be for them to carry through the transition to a market economy, while minimizing adverse effects on overall economic growth, rural employment and incomes in the short to medium term. Basic decisions are being taken or remain to be taken as to the ownership and restructuring of enterprises, the size, role and orientation of the farm and forestry sector, particularly in those countries where its potential contribution to export earnings - or to reducing imports, could facilitate the transition to market forces for other sectors.

400. Therefore, the prospects for European agriculture, including forestry, rest, to a large extent, not only on internal adjustments but also on developments in other sectors including international trade relations. Around the common underlying theme of more efficient production, more cost-effective policies and an enhanced role for market forces, a key policy issue for Member Nations is how to reconcile the dynamics of an efficient and highly productive agricultural sector with other changes in national economies and overall social and environmental goals. In this context, cooperation among European countries must be firmly predicated on "interdependence". The analysis and synthesis of policy experiences, in which FAO has traditionally played an active role, will contribute to the spread of novel approaches in the quest for improved policies in both Western and Eastern Europe, especially the latter.

401. As part of this interdependence, recent developments in foreign trade policies will have a significant impact in the medium term, on both trade flows and the conditions under which agricultural and forestry commodities are traded. Countries of the region are active participants in the Committee on Commodity Problems (CCP) and its subsidiary Intergovernmental Commodity Groups (ICGs) where issues of direct concern to the region include market access, export opportunities and the outlook for a range of commodities. In future years, developments in the European Community including the single market, an eventual expansion of membership with its effects on neighbouring countries, and the developments in Eastern Europe and the former USSR, will have an important impact on production and trade.

402. On the social scene, rapidly shrinking percentages of the population employed in the agricultural sector have a direct bearing on future employment prospects and related policies geared to the industry and services sectors. The agricultural labour force is not only declining as a percentage of the total labour force, but also in absolute numbers. Where a commensurate progress in labour productivity is not taking place, this can lead to a deterioration in domestic supply. In this process, the ageing of the rural population has distinct social and economic implications. Country situations in respect of these trends vary widely. By and large, Eastern Europe has twice the percentage of agricultural labour force prevalent in Western Europe and lags behind in terms of the "transition" to non-agricultural employment. In both sub-regions, but particularly in the former, agricultural policies should be consistent with a definition of socially and economically desirable patterns of change in population (urban/rural) and labour force (agricultural/non-agricultural) distribution.

403. The region is endowed with a reservoir of among the finest agricultural and forestry research institutions in the world, some of which have competence also in crops and production systems outside the region. This wide range of research activities in agriculture and forestry, and the rapid progress of science and technology, call for close international and interdisciplinary cooperation for optimal utilization of existing capabilities. Also, the application of research results and the complexity of modern methods of production are putting increasing pressure on farm and forest management. This calls for expanded professional training and highly qualified advisory services.

404. The integration of environmental, nutritional and agricultural objectives is making Europe's agricultural policy agenda more complex than ever. Policy-makers are searching for a combination of: socio-cultural measures to improve life in rural areas and encourage

the consumption of nutritionally balanced diets; economic incentives to increase resource efficiency; and environmental measures and regulations to conserve soil, water, wildlife and forest resources, while ensuring food safety and consumer protection and protecting cultural heritages, including rural landscapes. While these objectives are basically compatible, some trade-offs are inevitable and require determined action by policy-makers to achieve sustainable development. In Eastern Europe, the state of the environment is of particular concern, with its negative consequences on human health and on the natural resource base for agriculture and forestry.

*The focus of FAO's work:*

405. While it may differ in some respect from other regions, the scope for promoting activities of regional, sub-regional or purely national interest within Europe under the umbrella of FAO, would appear to be quite large. In view of resource limitations and the acute requirements of other regions, the thrust of FAO's role in Europe should remain catalytic, and its work should seek to achieve the greatest possible multiplier effect. In fact, FAO action should not be measured solely on the basis of modest expenditures of direct benefit to the region, but seen in the context of governments' direct and indirect contributions to many FAO activities. Furthermore, FAO's joint activities with the UN-ECE should also be seen in this context. Moreover, the concept of activities of regional interest could also be interpreted as:

- (a) facilitating outreach of Europe-based initiatives, such as for instance to neighbouring countries of the Mediterranean Basin;
- (b) facilitating the transfer of pertinent experiences and expertise to other regions; or
- (c) permitting greater sensitization of the European Region to problems of global significance and harnessing the region's formidable potential to solve such problems.

FAO is particularly well placed to act as a "bridge" across regions in all these aspects.

406. In this light, the priorities and major activities envisaged over the medium term are as follows.

**Assistance to transition economies:**

407. Assistance to restructuring of the agricultural, fisheries and forestry sectors in the economies in transition of Eastern and Central Europe will receive highest priority, leading to growing FAO involvement in support of government policies aimed at establishing a viable market-orientated rural sector. The FAO Regional Conference, various other intergovernmental bodies and the joint fora with the UN Economic Commission for Europe (ECE) will provide further opportunities for general policy debates, including developments in transition countries, whereas the Standing Group on European Agricultural Policies will be entirely devoted to discussions of specific policy issues.

408. Resources permitting, future FAO technical assistance will build on previously provided assistance for agricultural restructuring. In particular, FAO will assist governments of Eastern Europe in identifying priority areas, strategies and means to transform the food and agricultural sector. In most transition countries, food processing is horizontally integrated with agriculture. FAO could help to solve the acute problems related to transport, storage, food processing, food safety and quality. Special attention will be given to the necessary strengthening of the technical and institutional capabilities of the ministries concerned and policy analysis units. Planning and efficient implementation of the privatization process will also receive attention, as well as the implications of integrating food, and agriculture and forest policies with macro-economic policy. Such work will be carried out in close cooperation with other international organizations.

409. Other planned activities will include: expert consultations to discuss the experience gained in the transition process; support to workshops and research on evolving production structures, including participation of rural people in the decision making and management of resources; and review of appropriate land tenure systems.

410. For certain countries in Eastern and Central Europe, FAO is likely to receive further requests for assistance in agricultural, fisheries and forestry sector reviews, including the identification of agricultural development strategies and related policy options. Requests for more focused assistance in adjusting curricula and in training government staff in agricultural project formulation and analysis, and more generally in agricultural planning, policy analysis and institution building, are also most likely. In meeting these requests to the extent possible, the experience acquired will be disseminated to other countries in the region.

411. Among normative activities, it is expected that FAO will be closely involved in assisting countries to develop plant quarantine and export-related disciplines, to enhance their capacities to meet export standards. This will require infrastructure-building and strengthening of plant quarantine, in the first instance, through adherence to the International Plant Protection Convention, of which FAO is the repository. FAO will also seek adherence to the provisions of the International Code of Conduct on the Distribution and Use of Pesticides and the Prior Informed Consent clause and promote the adoption and enforcement of maximum residue limits established by the Codex Alimentarius Commission.

#### **Other assistance to Member Nations and support to European integration:**

412. Besides primary emphasis on transition economies, FAO will continue its role in promoting cooperation towards improved food and agriculture policies throughout the European Region, as the principal pan-European forum for the exchange of information on policy experiences in food and agriculture, including the forestry and fisheries sectors, and for common undertaking of the required analyses.

413. The prospect for greater integration of markets within the region, and its impact both within and beyond the region, will constitute a key area of policy analysis and also where FAO could play a useful advisory role. In particular, FAO will need to provide further assistance to European and Mediterranean countries aiming at joining the European Community, for instance in adjusting their agricultural policies to be in harmony with those



of the European Community, taking account of the progressive implementation of existing and forthcoming agreements between the European Community and transition countries which include substantial aspects relating to agriculture.

414. Possible further unification by the late nineties will also have direct and indirect impact on the intra- and interregional labour mobility, affecting especially Eastern European countries and the Near East and North Africa Regions. Policy implications of such developments will be analyzed by FAO, including the changed role of women in rural areas as a result of interregional male labour mobility and remittance changes. Also the developments in the European Region are having important implications for trade flows from developing countries, either directly (e.g. the treatment of banana imports under a single market) or indirectly, through liberalization of markets in Eastern Europe. Many schemes are presently in place which promote trade with developing countries. FAO will monitor these issues and the problems and potential arising from changing trade policies and programmes.

415. The close collaboration already established with the European Community regarding the global information and early warning system (GIEWS) will be expanded, as will cooperation in food security activities, including the Food Security Assistance Scheme. In these and other areas, particular attention will also be given to strengthening cooperation with countries in Eastern Europe and in the former USSR, through exchanges of information on commodity markets and developments influencing these markets. Remote sensing for the assessment of forest damage will be used in cooperation with UNEP.

416. FAO will also continue to assist countries in the preparation and execution of field projects funded by external donors and in training local experts, particularly in project formulation, agricultural planning and institution building.

#### **Support to regional cooperation:**

417. Agricultural research and technology development will continue to feature prominently in the policy agenda of all European countries. FAO, for its part, will pursue the promotion of research cooperation in natural resources and in environment-safe technologies, plant and animal production, agricultural and forestry policy and economics and on the social and human dimensions of rural development issues.

418. In this respect, the existing structures within the European System of Cooperative Research Networks in Agriculture (ESCORENA) and European Cooperative Networks on Rural Energy (CNRE) and the Standing Group on European Agricultural Policy will continue their activities, for mutual benefit of all participants. In addition, flexible approaches, such as the establishment of *ad hoc* working or study groups and joint activities with other regional intergovernmental or professional bodies, will be pursued. Cooperative research programmes will be adjusted in accordance with priorities set by Member Nations, within their respective agricultural policy frameworks, taking account of discussions at the Eighteenth Regional Conference for Europe (August 1992). The latter also suggested that data should be made accessible to users such as extension agents and farmers. It was also

stressed that it would be useful to disseminate them directly to Southern European countries and to the countries in transition.

419. Research cooperation in the field of agricultural policy analysis and agrarian economics will be sought through the existing study group and other forms of cooperative undertakings, as appropriate, in particular the FAO/ECE Working Party on Economics of the Agri-Food Sector and Farm Management. It is expected that these groups produce regular analyses and recommendations for the attention of national authorities, FAO bodies and other international fora dealing with food and agricultural problems. They will rely primarily on expertise and information available in participating countries, but also will draw heavily on FAO's information base (WAICENT and country files).

420. Socio-economic activities will focus on exchange and analysis of experiences in development of human resources, rural institutions, rural employment and income-generating activities in rural areas. Particular attention will be given to the promotion of the role of women and the agricultural family in rural development, through direct assistance to governments in formulating and implementing rural development policies, including pilot schemes and programmes for development of less-favoured areas, and through training programmes. In addition to the existing Working Party on Women and the Agricultural Family in Rural Development, *ad hoc* study and working groups will be established to study, monitor and evaluate developments and experiences in more specialized fields such as: modernization and improvements in extension programmes, leadership development, training for new economic activities in rural areas, people's participation in decision making processes. Other areas in which FAO will promote regional cooperation include remote sensing and rural energy, including the application of geographic information systems (GIS).

#### **Other areas:**

421. FAO will be active in promoting sustainable agriculture and rural development (SARD). Data collection, information exchange and processing to monitor progress in implementing SARD will be essential. The development of "environmentally friendly" integrated production systems, which take into account ecological and biological considerations in controlling agricultural pest populations and managing soil fertility, is among the main challenges facing European agriculture in the medium term.

422. The FAO/ECE joint working parties, especially the one dealing with agriculture and the environment, will provide an important forum for pursuing dialogue on SARD and exploring ways and means of making it an operational reality. FAO is also prepared to cooperate with national and regional entities in carrying out natural resource assessments in the light of mounting pollution problems.

423. In the areas of consumer protection and the promotion of fair practices in the food trade, FAO will continue to assist governments of the region to establish, review and strengthen national food control systems for domestically produced food, imported food and food for export. This is of particular importance to the transition countries as they attempt to penetrate the food markets of other countries. Through the Codex Alimentarius Commission, FAO will continue to assist member countries of the region in the application

of food standards and the establishment of administrative and technical infrastructures to give effect to those standards.

424. A number of valuable activities in animal production and health, carried out under the aegis of FAO, are expected to continue over the medium term. For instance, the European Commission for the Control of Foot-and-Mouth Disease, established in 1954 within the framework of FAO, which now comprises 28 countries from the European Region, will serve as the main channel to combat FMD with a view to its ultimate eradication. Although major infectious diseases such as rinderpest and pleuropneumonia have generally been completely eradicated from most countries in the region, FAO will need to maintain the capability to provide limited emergency assistance to countries in the event of outbreaks of infectious diseases. FAO will also place emphasis on increasing animal productivity through the control of non-infectious and production diseases (e.g. helminth parasites, reproductive inefficiency, neonatal mortality, mineral deficiencies and metabolic diseases, etc.). Related activities will encompass expert consultations and publications, as well as field projects in specific cases.

425. Fisheries activities of interest to the region will continue to be carried out primarily under the aegis of two FAO Statutory Bodies. The General Fisheries Council for the Mediterranean (GFCM), which was established in 1949, will continue to promote cooperation among the 20 member countries in the fields of fisheries management, statistics, stock assessment, economics and planning. Collaboration on inland fisheries and aquaculture will be ensured through the European Inland Fisheries Advisory Commission (EIFAC) which was established in 1957 and which now groups 26 countries.

426. The well-established and appreciated tradition of regional cooperation on forestry and forest product matters under FAO auspices, is expected to continue with the active involvement of the concerned national authorities. For instance, as a follow-up to the Strasbourg Ministerial Conference on Forest Protection in Europe (December 1990), a network will be created to promote the conservation of forest genetic resources in Europe, and to facilitate the dissemination of information and exchange of know-how among countries in the region.

427. Regional cooperation will also be pursued through the FAO Committee on Mediterranean Forestry Questions - *Silva Mediterranea* - in the areas of:

- (a) forest fire control and monitoring;
- (b) the development of valuable non-timber forest products of the Mediterranean ecosystems and their potential for providing employment in marginal areas;
- (c) conservation and development of multi-purpose species of the Mediterranean basin; and
- (d) the development of adequate silvicultural practices for important forest species and formations in the sub-region.

428. Among general planning activities to which FAO is expected to provide support are the proposed National Forestry Action Plans (NFAPs) for the Mediterranean countries recommended during the Tenth World Forestry Congress. The NFAPs will review the needs of the respective forestry sectors and recommend priorities and areas of intervention.

429. FAO will also seek to establish closer links with countries of the former USSR and Eastern European countries, particularly in:

- (a) collection, analysis and dissemination of information, especially by the introduction of modern electronic means;
- (b) forestry research and facilitating the dissemination of information on the results of such research;
- (c) methodologies and programmes for the protection of natural forests from acidification, pollution, pests and fire;
- (d) establishment of forest policies, laws and institutional arrangements in line with the transition from centrally-planned to market-oriented economies and with due consideration to environmental concerns; adaptation of the existing institutional framework; and
- (e) marketing structures and strategies.

## ● Latin America and the Caribbean

### *The regional setting:*

430. The region as a whole is richly endowed with natural resources, which give it the potential to satisfy aggregate regional food needs and also to produce substantial surpluses for export. In effect, Latin America is perceived as being one of the few agricultural frontiers left in the world and the repository of a great wealth of genetic resources. The continent's contribution to biodiversity is only recently receiving the attention it deserves, particularly as regards conservation aspects and its potential to increase agricultural production, if properly utilized.

431. However, the incidence of heavy debt burdens, the many structural deficiencies, the extent of acute - and visible - urban and rural poverty, the influence of internal and external tariff and non-tariff barriers to trade of primary and processed agricultural products, among other factors, make the full-scale and rational use of this vast potential of natural resources still a distant prospect.

432. The present regional *per capita* product is estimated to be about 10 percent lower than in the early eighties in real terms. This crude average, however, tends to mask the deep

political and economic changes which are taking place in many countries and which could provide the basis for future and sustained growth. New approaches to economic policy aim at a reduced role of the state and its more efficient functioning, including through privatization of state enterprises, opening of external trade regimes, deregulation of markets for financial and basic products, and macro-economic adjustment measures, such as the reduction of deficits in public expenditures. The new role of the state embraced in most countries of the region, deeply affects the formulation of development strategies, the allocation of resources among the different sectors of the economy, decisions on external trade, investment priorities, and the extent of protection of lower-income population groups.

433. There is also greater awareness regarding the relationship between environmental imperatives and economic development objectives in the wake of the United Nations Conference on Environment and Development hosted by Brazil in June 1992. Regional averages also tend to conceal the wide differences in performance among various countries. Despite the mixed economic record, the last decade was marked by important advances on the political and institutional sides. Most countries now have democratically-elected governments and several basic indicators of social progress such as the average mortality rate, literacy rate and life expectancy at birth improved substantially. The agricultural sector, in general, performed better than the other sectors of the economy, not only in respect of its contribution to the Gross Domestic Product, but also in respect of social dimensions.

434. The agricultural scene in the region is itself fraught with great contrasts. Due to the lack of financial resources, government support services to small farmers and small-scale fishermen, including credit, are grossly inadequate in many countries. Therefore, despite a relatively high level of technological advance in the region, whereby technologies have been adapted or developed locally, their widespread application is still extremely difficult. The region is also distinguished by a growing dichotomy between high technology, capital-intensive, export-oriented enterprises on the one hand, and the traditional, small-scale, labour-intensive, low-capital, low-technology and domestic-oriented farm sector on the other. The benefits from technological innovations and consequent increases in productivity effectively reach only a fraction of the rural population, thus contributing to broadening the gap between rich and poor. The study on *Potentials for Agricultural and Rural Development in Latin America and the Caribbean*, published by FAO in 1988, among other aspects, addressed this situation. The regional Plan of Action approved by the Regional Conference of the same year needs to be implemented vigorously.

435. Reversal of earlier negative trends took hold at the beginning of this decade. A slight growth in real GDP was experienced in 1991 with respect to 1990. With a few exceptions, "hyper-inflation", a traditional feature of economic performance in much of the continent, was brought under control and, for the first time in 10 years, the region as a whole experienced a positive transfer of financial resources. However, with the exception of very few countries, no significant dent on the reduction of external debts has been made as yet. The export sector was still subject to adverse conditions and although exports of goods increased by 6 percent, the total value of these exports remained at the same level, due to the deterioration in the terms of trade.

436. With regard to sectoral perspectives, it may be observed that the present regional consensus stemming from the application of new economic policies with important social components is, to a great extent, favourable to the development of agriculture, forestry and fisheries. Almost all the countries have initiated structural adjustment programmes which, if accompanied by adequate sectoral policies, can unfold the potential of agriculture, and even transform the sector into one of the main elements for economic growth, by way of exports and import substitution. Two thirds of the FAO member countries in the region are, in fact, net exporters of agricultural products.

437. Small island states in the Caribbean sub-region have their own characteristics. Most of their economies are small and open. Although generally representing a modest share in total production, agriculture remains important in view of the values and volumes of exports and imports, as well as in the generation of employment. As a consequence of the recession in the industrialized countries, growth has slowed down in many countries in the sub-area. Sectoral strategies have focused on stopping growth of food imports, increasing productivity, diversifying exports and substantially increasing intra-regional trade, as the latter has grown at a steady pace over the last years. Progress continues to be made towards a unified and integrated market in CARICOM countries. Developments in international trade, particularly preferential agreements such as the Lomé Convention and the Caribbean Basin initiative, will continue to be important for those countries.

438. In conclusion, the major regional challenge is to achieve growth with equity, ensuring an adequate balance between economic growth and environmental sustainability. Poverty in general, and rural poverty in particular, is a key factor in the depletion of productive natural resources. Therefore, sustainable agriculture policies must address incomes and quality of life for the rural population while also promoting the utilization of technologies which contribute to conservation of soil and water, of forests and biodiversity. The sustainable exploitation of marine resources, both within the exclusive economic zones as well as in the high seas, is also a major imperative.

*The focus of FAO's work:*

439. Given the above common range of issues related to alleviation of poverty, combating malnutrition and creating the conditions for sustainable agricultural and rural development, they will need to be dealt with in regional and national development strategies. FAO will need to play a major role in this regard.

440. The fact that certain countries in the region have achieved important technological breakthroughs, coupled with the existence of highly trained cadres of professionals and technicians, as well as numerous institutions of excellence in different technical aspects of agriculture, fisheries, forestry, nutrition, population, and rural development, provides a fertile ground for TCDC initiatives. On this basis, the Organization will continue to promote technical exchanges through national institutions capable of generating and/or adapting environmentally safe technologies to regional and national situations, and to disseminate them to other specialized institutions. The regional system of technical cooperation networks will constitute the main channel for promotion of TCDC.

441. Many issues affecting domestic and external trade of primary and processed agricultural products such as: the globalization of world trade, the economic opening of Eastern Europe, the European Common Market, bilateral and multilateral trade agreements and integration schemes, tariff and non-tariff barriers to trade, will continue to be addressed in their implications. The relation between macro-economic and sectoral policies, food security, the new role of the state, and agricultural planning and policy formulation, will also require attention. The Joint ECLAC/FAO Agricultural Division will continue being instrumental in analyzing and monitoring developments in these fields.

442. Areas where requirements for technical advice are likely to remain high include: the introduction of nutritional components into agricultural and rural development programmes and projects; food quality control and street food systems; the organization of adequate support services to small farmers and small-scale fishermen; the enhancement of the participation of women in the development process; population and human settlement programmes; income-generating activities in rural areas; prevention of post-harvest losses; and access to markets and credit by small farmers.

443. A number of regional activities will also deal with the: conservation and sustainable exploitation of forest resources; desertification control; conservation and rational utilization of animal and plant biodiversity; applications of biotechnology; water quality for agriculture; and sound management practices of inland and marine water resources, in the light of UNCED follow-up.

444. Production and dissemination of information in the form of promotional and technical written and audio-visual material will remain necessary complements to technical cooperation.

445. All the above areas cut across two or more technical fields and therefore, special attention shall be given to ensure a multidisciplinary approach in the organization and implementation of technical assistance activities related to them.

## ● Near East

### *The regional setting:*

446. The Near East Region faces severe limitations in its natural endowment for agricultural development. Water shortage and soil degradation are among the major problems. The region is predominantly arid or semi-arid, and owing to rapid population growth and erratic rainfall patterns, the demand for water is approaching the limits of available resources. Sound policies and strategies for soil conservation and the management of water and forest resources need to be vigorously pursued.

447. Other factors which hinder agricultural development are the substantial differences in terms of socio-economic and political situations among countries, insufficient regional

cooperation, income inequalities, low labour productivity, large external debt, and unfavourable terms of trade. Moreover, the slowdown of world economic activity has adversely affected countries of the region, which have to face additional problems associated with the decreased demand for oil and lower oil prices, the return of large numbers of migrant workers, the loss of remittances, and disruptions in trade and capital flows. Yet, all countries are striving to achieve higher rates of economic development.

448. A few countries have made great strides towards self-sufficiency in some major crops and livestock products. However, most of them still suffer from insufficient food production, thus leading to growing and costly imports. Unfavourable market access for the region's exports has been exacerbated by depressed prices of primary commodities, particularly oil. As for agricultural commodities, the rate of growth in food production is lower than the population growth. The region is confronted with an increasingly negative trade balance with yearly imports totalling US\$ 22 billion, as against US\$ 7 billion of exports at the beginning of the nineties. Therefore, food security is perilous with a widening gap between domestic production and overall consumption.

449. The region includes dual systems of agricultural production. Whereas capital-intensive agriculture is practised in some areas, labour-intensive agriculture is still generally the rule. In oil-producing countries, where heavy investment in modern farming has taken place, agriculture is nevertheless dependent on subsidies. In some other countries, low agricultural prices, especially for grains and industrial crops, are maintained for the benefit of urban consumers. The pursuit of such policies results in distorted price structures and are detrimental to the efficient utilization of resources.

450. The need for policy reforms and structural adjustment has been gaining momentum. There is acute awareness of food security problems and dependency on imports. Many countries are implementing structural adjustment programmes, which have a deep impact on their economies. The role of the public sector is diminishing, while privatization is steadily expanding and governments are withdrawing from production activities, to concentrate on policy formulation, the provision of essential services and monitoring functions. While these changes are expected to improve efficiency in resource use, the dilemma of efficiency versus equity has not yet been satisfactorily solved, slowing down the privatization process for some time.

451. The need for political stability through more democratic structures of governments and normalization of relationships among countries is also widely felt. However, long standing instability within and/or between countries, social tensions and recent conflicts have negatively influenced the pace of agricultural development. Supportive structures and services are generally weak. Nevertheless, more emphasis is being given to improved marketing, distribution and extension systems, provision of credit, development or rehabilitation of irrigation and drainage networks, and environmental conservation.

452. Strong and concrete regional cooperation, through harmonization of agricultural development plans, enhancement of regional trade in food and agricultural products and environmental control remains the key policy issue for sustained agricultural development in the region. Moreover, in order to cope with rapid advancements in technology, countries



of the region are determined to increase regional and international cooperation in agricultural research activities. A number of regional organizations exist to foster such cooperation, but they require substantial external assistance.

*The focus of FAO's work:*

453. FAO will continue to stimulate economic and technical cooperation at the sub-regional and regional levels with a view to assisting Member Governments to achieve sustainable agricultural development, increase farmers' income, alleviate rural poverty, promote food security, and reach higher levels of self-sufficiency in food production.

454. Recognizing the major challenges facing food and agriculture in the region, FAO will concentrate on the following areas of priority:

- (a) follow-up to the United Nations Conference on Environment and Development, through appropriate regional initiatives;
- (b) integrated management of dry lands, plant nutrition and high yielding varieties, and control of pests;
- (c) integration of animal and crop production;
- (d) efficient resource use planning and management;
- (e) promoting cost-effective and energy-saving technologies;
- (f) human resources development in rural areas; and
- (g) follow-up to the ICN Plan of Action, at regional level.

455. As regards the management, conservation and development of natural resources, focus will be placed on the promotion of water resources conservation through the adoption of feasible water saving technologies in irrigation, as well as on integrated watershed management. Sustainable land use will also be promoted through soil conservation and environmental control measures, adapted to regional problems.

456. FAO will continue to support integrated pest management programmes, the implementation of the International Code of Conduct on the Distribution and Use of Pesticides and adherence to the International Plant Protection Convention. Assistance will be provided to Member Governments more particularly on efficient, economic and environment-friendly pest control measures, as required to control plant diseases and reduce pre- and post-harvest crop losses in the region.

457. The conservation of forage crops genetic resources and the production of basic seeds for pasture species are important aspects in the rehabilitation of ranges and expanding fodder crop production. FAO will provide assistance on sound range management systems and sustainable fodder resources utilization which will contribute to increase self-reliance in

animal products. Alternative sources and formulae for livestock and poultry feed production will be sought.

458. In view of the growing importance of environmental aspects and reducing post-harvest losses, activities in food and agricultural industries and agricultural research and technology development will concentrate on:

- (a) process biotechnology particularly for converting food and agro-industrial wastes into feed and food ingredients;
- (b) technology assessment, transfer and adaptation, especially cost-effective and energy-saving technologies; and
- (c) strengthening national capabilities in research policy formulation, planning and information development and management.

Support to national research centres will continue to be provided and research cooperation will be promoted through TCDC approaches.

459. Programmes in rural development will be geared to better income distribution within rural populations and between rural and urban areas. Rural poverty issues and institutional aspects will continue to be analyzed. The Regional Centre on Agrarian Reform and Rural Development for the Near East (CARDNE) could play a useful role in this respect. Agricultural education and training curricula will be reoriented to address actual needs and arising problems in agriculture and extension systems will be strengthened for efficient transfer of technology from the research stage to the farmers. Efforts will continue to be made to integrate women in mainstream agricultural and rural development and to enhance national capacity building.

460. In the fields of agricultural marketing and credit, regional cooperation will be fostered, particularly by working closely through and with the established credit and marketing networks NENARACA and AFMANENA, with the objective of improving and orienting credit and marketing systems to service effectively the requirements of small-scale farmers.

461. The still inadequate capacity of most countries of the region to formulate, implement and monitor agricultural policies, plans and projects, and to assess the differentiated impact of policy reforms, is of major concern and is likely to require considerable assistance. Training of government officials in policy analysis, planning and project formulation and evaluation will be intensified. Impact assessment studies of structural adjustment policies on farming systems and sub-sectors and on the sustainable use of resources, will be undertaken.

462. FAO's fisheries programmes in the region would continue to aim at improving policy formulation, developing favourable conditions for investment in the fisheries sector, increasing the accuracy of data collection systems and promoting regional cooperation in the utilization of common fisheries resources. Self-reliance in the management and development

of national fisheries resources from both marine and inland waters and from aquaculture remains a key objective.

463. Regarding forestry, FAO's activities will concentrate on: forest land area planning; management of man-made forests; strengthening of forestry institutions and promotion of public commitment and participation for the expansion of forested areas. Sustainable forestry programmes for environmental protection, including desertification control and afforestation of degraded lands, and production of timber and non-wood forest products will be supported. Regional cooperation in forestry development will be strengthened through TCDC approaches.

464. FAO, through its Regional Office for the Near East (RNEA), will continue to cooperate with the League of Arab States (LAS) and its subsidiary bodies and support regional institutions and associations, namely AARINENA, NENARACA, AFMANENA, CARDNE and INFOSAMAK, to enhance their activities and contribute to regional cooperation.

465. The joint ESCWA/FAO Agriculture Division (JNEA) will continue to stimulate economic and technical cooperation among ESCWA countries at the sub-regional and regional levels. The joint division's programme will be adjusted to take account of regional environmental priorities as a follow-up to UNCED, particularly on combating desertification. In this area, activities will include the provision of assistance to ESCWA Member Governments in developing long-term national conservation strategies for the preparation of national action programmes and projects dealing with rehabilitation, protection and development of the region's fragile ecosystems. Strengthening institutional arrangements for the planning and design of rural development projects remains a vital issue and will receive particular attention. As the region is undergoing structural adjustment processes, agricultural planning and policy formulation have to be adjusted to take into account the new roles assumed by governments and private investors in the agricultural sector. In this context, training in policy and project analysis, farm management and resource conservation will receive high priority.

## CHAPTER FIVE: RESOURCES

466. In keeping with the terms of Conference Resolution 10/89, which *inter alia* reintroduced the practice of submission of a Medium-term Plan to FAO Governing Bodies, tentative resource projections by major budgetary headings were provided in the previous Plan.

467. Opinion on the merit of such projections, among those delegations which addressed the issue at the last Conference, was divided. The importance of an assured resource base to permit the effective implementation of the programme priorities embodied in the Plan was stressed by several delegations. Others underlined that national budget regulations almost invariably precluded the possibility of Member Nations endorsing any type of long-term commitment of a financial nature. The Conference agreed that purely indicative projections could not have a binding character on the membership.

468. The Director-General does not wish to encourage divisiveness as he fully respects all points of view expressed. In his opinion, it would seem relevant, and no doubt intrinsically useful in all awareness of the limitations, to be able to gauge the broad impact in financial terms of proposed courses of actions, as may form the essence of any plan. However, these projections may be considered superfluous, or at best highly theoretical, if they cannot lead to any commitment. They may even distract from the policy dialogue which the Plan should stimulate. Accordingly, the present version of the Medium-term Plan does not include any resource projections.

469. Nevertheless, in his Introduction to this document, the Director-General alluded to the likely continuation of pressures which would limit future real growth of resources at the disposal of FAO under the Regular Budget, regrettably perhaps also under extra-budgetary funding. It may be pertinent in this context to retrace the evolution in real terms of the Regular Budget over the last six years:

	US\$'000		
	1986-87	1988-89	1990-91
1. Approved Programme of Work and Budget	437 000	492 360	568 800
2. Programme change over previous Programme of Work and Budget	5 030	1 135	5 500
3. Percentage 2. over 1.	1.15	0.23	0.97
4. Forced savings/programme cuts	22 780 <sup>5</sup>	49 998 <sup>6</sup>	21 697 <sup>7</sup>
5. Net programme decrease	(5.21)	(10.15)	(3.81)

470. These figures show unmistakably the decline in FAO's resources in real terms. Between 1986-87 and 1990-91, the real programme increase in each Programme of Work and Budget was between US\$ 1 million and US\$ 5 million per biennium.

471. However, the effort dedicated by Member Nations to approving these modest programme increases was totally nullified by the forced savings and programme cuts ranging from US\$ 22 to 50 million in each biennium.

472. The lesson would seem to be clear. The Organization could serve its Member Nations better, even if there were no programme growth from one biennium to the next, if its resources were assured to permit full implementation of the approved Programme of Work.

473. As the Director-General submits to the next Conference his proposals for the Programme of Work and Budget for 1994-95 with no programme growth over the current biennium, it is his ardent wish that in approving his proposals, Member Nations will assume simultaneously a commitment to ensure the prompt and full availability of assessed resources.

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<sup>5</sup> Including US\$ 3.3 million loss on currency transactions charged to Chapter 5, and positive staff cost variance of US\$ 4.3 million.

<sup>6</sup> Including US\$ 25.2 million negative staff cost variance.

<sup>7</sup> Including US\$ 21 million negative staff cost variance.

## ACRONYMS

AARINENA	-	Association of Agricultural Research Institutions in the Near East and North Africa
ACC	-	Administrative Committee on Co-ordination (UN)
AEC	-	African Economic Community
AEZ	-	Agro-ecological zones
AFC	-	Computer Services Centre (FAO)
AFMANENA	-	Agricultural and Food Marketing Association for the Near East and North Africa
AGPROMAN	-	Technical cooperation network on agricultural project management
AGRIS	-	International Information System for the Agricultural Science and Technology
ANGOC	-	Asian NGO Coalition for Agrarian Reform and Rural Development
APAARI	-	Asia-Pacific Association for Agricultural Research Institutions
APIS	-	Agricultural Policy Information System (FAO)
ASEAN	-	Association of Southeast-Asian Nations
ASFA	-	Aquatic Sciences and Fisheries Abstracts
CAAP	-	Common African Agricultural Programme
CAPPA	-	Computerized System for Agricultural and Population Planning Assistance and Training
CARDNE	-	Regional Centre on Agrarian Reform and Rural Development for the Near East
CARICOM	-	Caribbean Community Secretariat
CARIS	-	Current Agricultural Research Information System
CASE	-	Computer-aided systems engineering
CCP	-	Committee on Commodity Problems (FAO)
CGIAR	-	Consultative Group on International Agricultural Research
CIFOR	-	Centre for International Forestry Research
CILSS	-	Permanent Interstate Committee for Drought Control in the Sahel
CIRDAFRICA	-	Centre on Integrated Rural Development for Africa
CIRDAP	-	Centre on Integrated Rural Development for Asia and the Pacific
CNRE	-	European Cooperative Networks on Rural Energy
COFO	-	Committee on Forestry (FAO)
COPAC	-	Committee for the Promotion of Aid to Cooperatives
CSD	-	Commission on Sustainable Development (UN)
ECDC	-	Economic Cooperation among Developing Countries
ECE	-	Economic Commission for Europe (UN)
ECLAC	-	Economic Commission for Latin America and the Caribbean
ECOSOC	-	Economic and Social Council (UN)
EEC	-	European Economic Community
EEZ	-	Exclusive economic zone
EIFAC	-	European Inland Fisheries Advisory Commission
ESC	-	Commodities and Trade Division (FAO)
SCORENA	-	European System of Cooperative Research Networks in Agriculture
ESCWA	-	Economic and Social Commission for Western Asia
ESH	-	Human Resources, Institutions and Agrarian Reform Division (FAO)
ESP	-	Policy Analysis Division (FAO)
ESS	-	Statistics Division (ESS)
FAOR	-	FAO Representative
FINSYS	-	Financial Management System (FAO)
FMD	-	Foot-and-Mouth disease
FORSPA	-	Forestry Research Support Programme for Asia and the Pacific
FSD	-	Farming Systems Development
GATT	-	General Agreement on Tariffs and Trade

GDP	-	Gross Domestic Product
GEF	-	Global Environment Facility
GFCM	-	General Fisheries Council for the Mediterranean
GIEWS	-	Global Information and Early Warning System for Food and Agriculture (FAO)
GIS	-	Geographic Information System
GLOBEFISH	-	Computerized System of Fish Marketing Information (FAO)
IACSD	-	Inter-agency Committee on Sustainable Development (UN)
IARCs	-	International Agricultural Research Centres (CGIAR)
ICA	-	International Cooperative Alliance
ICAM	-	Integrated Coastal Areas Management
ICG	-	Intergovernmental Commodity Group
ICM	-	Integrated Crop Management
ICN	-	International Conference on Nutrition
ICPF	-	International Cooperative Programme Framework
ICSC	-	International Civil Service Commission
IFAD	-	International Fund for Agricultural Development
IFAP	-	International Federation of Agricultural Producers
IFPRI	-	International Food Policy Research Institute
IGADD	-	Intergovernmental Authority on Drought and Development
ILO	-	International Labour Organization
IMF	-	International Monetary Fund
INFOFISH	-	Intergovernmental Organization for Marketing Information and Technical Advisory Services for Fishery Products in the Asia and Pacific Region
INFOPECHE	-	Intergovernmental Organization for Marketing Information and Cooperation Services for Fishery Products in Africa
INFOSAMAK	-	Fish Marketing Information, Promotion and Technical Advisory Services for Arab Countries
IOFC	-	Indian Ocean Fishery Commission
IPFC	-	Indo-Pacific Fishery Commission
IPM	-	Integrated Pest Management
IPNS	-	Integrated Plant Nutrition Systems
ISCRAL	-	International Scheme for the Conservation and Rehabilitation of African Lands
ISRC	-	Information Systems and Resources Committee (FAO)
ISWG	-	Inter-Secretariat Working Group
ITTO	-	International Tropical Timber Organization
IVDN	-	Integrated voice/data network
JNEA	-	Joint ESCWA/FAO Agriculture Division
LAS	-	League of Arab States
LDCs	-	Least Developed Countries
NENARACA	-	Near East-North Africa Regional Agricultural Credit Association
NEX	-	National execution
NFAP	-	National Forestry Action Plans
NGO	-	Non-governmental Organization
OAU	-	Organization of African Unity
OECD	-	Organisation for Economic Co-operation and Development
OPS	-	Office for Project Services (UNDP)
PERSYS	-	Personnel management system (FAO)
PGR	-	Plant Genetic Resources
RAPA	-	Regional Office for Asia and the Pacific (FAO)
RENA	-	Réseau pour l'éducation nutritionnelle en Afrique (Belgium)
RNEA	-	Regional Office for the Near East (FAO)
SACRED	-	Scheme for Agricultural Credit Development (FAO)
SADC	-	Southern African Development Community
SAP	-	Special Action Programme
SARD	-	Sustainable Agriculture and Rural Development

SSAP	-	Sector and Structural Adjustment Policy
TCDC	-	Technical Cooperation among Developing Countries
TCP	-	Technical Cooperation Programme (FAO)
TFAP	-	Tropical Forests Action Programme (FAO)
TSS	-	Technical support services (UNDP)
UNCED	-	United Nations Conference on Environment and Development
UNCTAD	-	United Nations Conference on Trade and Development
UNDP	-	United Nations Development Programme
UNEP	-	United Nations Environment Programme
Unesco	-	United Nations Educational, Scientific and Cultural Organization
UNFPA	-	United Nations Population Fund
UNICEF	-	United Nations Children's Fund
UNIFEM	-	United Nations Development Fund for Women
UNU	-	United Nations University
WAICENT	-	World Agriculture Information Centre (FAO)
WCA	-	World Census of Agriculture
WCARRD	-	World Conference on Agrarian Reform and Rural Development
WFP	-	World Food Programme
WHO	-	World Health Organization
WID	-	Women in Development