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ALIMENTATION ET L'AGRICULTURE

ORGANIZACION DE LAS NACIONES UNIDAS
PARA LA AGRICULTURA Y LA ALIMENTACION

FOOD AND AGRICULTURE ORGANIZATION
OF THE UNITED NATIONS

DEVELOPMENT OF FOOD AND AGRICULTURAL RESOURCES
IN THE NEAR EAST

Report on the Second Near East Regional Meeting
on Food and Agricultural Programs and

Outlook

Bloudane, Syria,

28 August - 6 September 1951

P R E F A T O R Y N O T E

This publication consists of two sections:-

- A. Report on the Second Near East Regional
 Meeting on Food and Agricultural
 Programs and Outlook

 Bloudane, Syria,
 28 August - 6 September 1951.

- B. Working Paper on Current Development of and
 Prospects for Agriculture in the Near East.

Apart from a number of minor revisions and additions, the Working Paper appears in the form in which it was presented to the Meeting. Certain supplementary information supplied by delegations has been included in the Notes appended to this document.

A. REPORT ON THE SECOND NEAR EAST REGIONAL
MEETING ON FOOD AND AGRICULTURAL
PROGRAMS AND OUTLOOK

Bloudane, Syria,

28 August - 6 September 1951.

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REPORT ON THE SECOND NEAR EAST REGIONAL
MEETING ON FOOD AND AGRICULTURAL
PROGRAMS AND OUTLOOK

Bloudane, Syria,

28 August - 6 September 1951.

The Food and Agriculture Organization of the United Nations, after having approached the Governments concerned and obtained favorable reactions to the proposal, convened a Meeting on Food and Agricultural Programs and Outlook in the Near East. The Government of Syria having generously offered to act as host, the Meeting, which was a further development of the pattern which started at Beirut, Lebanon, in September 1949, opened at Bloudane, Syria, on 28 August 1951.

Delegations of the following countries participated:

Egypt	Lebanon
Ethiopia	Pakistan
France	Saudi Arabia
Iraq	Syria
Hashemite Kingdom of Jordan	Turkey
	United Kingdom

In addition, observers attended from the United Nations Educational, Scientific and Cultural Organization, the United Nations Relief and Works Agency, the United Nations International Children's Endowment Fund, the Near East Foundation and the International Labour Organization.

Officers of the Meeting

At the opening session, the following officers were elected:

Chairman: H.E. Mohamed Moubarak, Minister of
Agriculture of Syria.

Vice-Chairmen: H.E. A.G.N. Pathan, Minister of Food,
Agriculture, Education and Health,
Government of Sind, Pakistan.

Darwish el Haidary Bey, Director-General
of Agriculture of Iraq.

H.E. Mohamed Aly El-Kilany Bey, Under-
Secretary of State, Ministry of Agriculture,
Egypt.

Amin Bey Nazif, Director-General of
Agriculture of Syria.

1. CONDITIONS IN FOOD AND AGRICULTURE IN 1951

The Meeting has received reports from all delegations in regard to the 1951 harvests and consequent supplies of food and raw materials which will be available from domestic production during the 1951/52 consumption year.

Although the 1951 harvests have not yet been completed and there are many defects and gaps in the statistics, there is clear evidence that agricultural production in the Near East as a whole (including Turkey but excluding Pakistan) will be considerably larger in 1951 than in 1950, and probably higher than any other year since World War II.

Provisional estimates of Near East output of grains and cotton in 1951 compared with 1950 and prewar are summarized below:

Production of Grains and Cotton in 1951 compared with 1950 and Prewar

Commodity	1934-38	1950 revised	1951 preliminary
(.....1,000 metric tons.....)			
Total grains *	18,200	21,000	22,500
Wheat	9,500	10,500	11,600
Barley	4,200	5,000	5,300
Maize	2,300	2,200	2,400
Rice	1,600	2,400	2,200
Cotton	560	660	770

* Including rye and oats but excluding sorghums and millets.

The outstanding development of 1951 was the great expansion of area cultivated in Turkey, Iraq, Syria and Saudi Arabia, largely due to very favorable prices for farm products and to the increase in the number of tractors and water pumps used. The increase in the area of the main crops in one country alone - Turkey - was over 800,000 hectares, or more than the normal cultivated area of Jordan and Lebanon combined. Statistics are not yet available on the 1951 areas for all countries, but it appears that the total increase for the region may be close to 1 million hectares. It is worth noting, however, that most of this increase has been in countries where the pressure of population on resources is relatively light and that there was little increase in area or production in the countries with the more intense population pressures.

Another development was the continuation, and in some cases, acceleration, of the expansion of cotton production which was very noticeable in 1950. Along with the increase in areas there have been more intense efforts to control insects and more efforts toward improvement and control of cotton varieties.

The chief unfavorable factor in 1951 was the lack of rain in the winter of 1950/51 and the consequent reduction in grain crops and animal fodder in 1951. The areas most affected were Cyprus, Lebanon, Syria, Jordan and parts of Iraq and Saudi Arabia. The effects were most disastrous in Jordan and Syria where large numbers of animals either died or were sold in poor condition and at low prices. Grain crops were down 40% or more from 1950 and Syria banned exports from the 1951 crops while Jordan is faced with the need for importing considerable quantities of cereals. The low rainfall of the winter of 1950/51 also resulted in a shortage of irrigation water for summer crops, especially cotton, in several countries. North-western and southern Iraq were also seriously affected by the drought. However, crops lost were almost entirely in new areas, while the crops in established areas were above average due to the absence of floods. Consequently, in spite of the failure of the new areas where rainfall was much below average, production for the country as a whole, for most crops, was higher than in previous years.

Exact appraisal of the terms of trade for the farmer of the Near East is not possible because of lack of data, but movements of wholesale prices furnish some indications. Prices of agricultural products generally rose rapidly for several months after the Korean War began in the middle of 1950, while prices of agricultural requisites advanced slowly. Recent weakening in wholesale or future markets for several commodities, notably wool, cotton and grains suggests that the stimulating effect of the Korean War will not be so strong in the future and that the terms of trade for farmers in the Near East may not improve further or may even deteriorate.

II. GENERAL OBJECTIVES OF FOOD AND AGRICULTURAL POLICIES IN NEAR EAST COUNTRIES

The Meeting has had a full exchange of information and views on the broad objectives of the agricultural policies of Near East countries. As general aspects of this review it notes the trend toward over-all planning of agricultural development, the increased awareness of the importance of nutrition and its relation to agricultural policy, awakening interest in the development of forestry and fisheries, the growing emphasis on agricultural education and research, and the beginning of a trend towards mechanized farming in countries where population is scarce in relation to land resources.

Present agricultural policies in the Near East area show that in the majority of the countries considerable emphasis is placed on the expansion of grain production, with a view to increasing supplies for domestic consumption, exports or both. Equally substantial is the proposed extension of cotton output which in 1950 already exceeded the prewar level by one fifth. High rates of increase are also planned for sugar and potatoes. Production of fresh and dried fruits and vegetables, which are important export crops in some Near East countries, tends to be stabilized at, or slightly above, current levels, owing to the uncertain market outlook for these commodities. Output of citrus fruits is unlikely to recover the prewar levels at any early date. With regard to livestock products, certain country programs suggest that output of milk may expand more rapidly than that of meat.

The Meeting is of the opinion that the food policies of the countries in the Near East area should be developed with the following general considerations in mind:

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Production of food per capita in the region is currently slightly lower than prewar, notwithstanding the fact that total food production exceeds the prewar production by 10%.

Since food consumption levels in the region were already inadequate before the war, it is obvious that high priority should be given to measures leading to an increased agricultural production with emphasis on an expanded production of food crops rather than export crops.

Expansion of agricultural production can be achieved by intensifying production on land already under cultivation and by opening up new land. The Near East region has great possibilities in both directions.

Present levels of agricultural production per area unit are still relatively low and there is ample scope for improvement through the application of better techniques, the introduction of measures leading to the improvement of present systems of land tenure and the provision of credit facilities for farmers.

New land can be brought into cultivation by introducing new irrigation and drainage schemes, by improving and extending existing ones and by mechanization. It is estimated that the total area in the Near East which is at present unused but can potentially be brought into cultivation amounts to approximately twice the area at present under cultivation.

III. FOOD AND AGRICULTURAL PLANNING

The full and orderly development of food and agricultural resources calls for the formulation of clear cut agricultural policies, programs and targets. Since the end of the war, considerable progress has been made in this direction both in other parts of the world and in the Near East.

The Meeting has had before it information on production targets or official estimates for 1952/53 for a number of countries, plus provisional estimates for other countries, prepared by the FAO Secretariat on the basis of past trends and government policies. These have been the subject of discussion between individual delegations and the Secretariat, during which a great deal of additional information has been supplied and a number of modifications have been made in the 1952/53 estimates. The Meeting wishes to draw attention to the implications, as set forth in the Working Paper on "Current Development of and Prospects for Agriculture in the Near East", to be drawn from these figures. In particular it notes that while production of food per head in recent years has been slightly below prewar levels, per caput production in 1952/53 will be about 11% higher than before the war if the efforts and aspirations of governments and farmers bear full fruit. It recognizes, however, that the most rigorous implementation of planned programs and projects will be necessary if these objectives are to be attained.

Having regard to longer term development beyond 1952, and bearing in mind the importance of coordinated development of agricultural resources,

The Meeting recommends to the Governments of the Near East region the preparation by each of them of an overall plan for the development of agriculture and improvement of nutrition, where such a plan does not already exist. It further suggests that so far as practicable, such

plans should include targets for production, trade and consumption of the principal agricultural products, and considers that one of the basic factors to be taken into consideration in deciding on these production objectives should be the nutritional needs of the people.

The Meeting notes with satisfaction that FAO is prepared, as part of its regular activities and through its Technical Assistance Program, to render assistance to the countries in the region at their request in the preparation of such development plans.

IV. IMPROVEMENT OF AGRICULTURAL STATISTICS

The lack of current statistics on area, production and prices of agricultural commodities and the lack of basic data on the structure of agriculture and the number and characteristics of the rural population impose severe limitations on planning of agricultural programs and on research on many economic and even technical questions. The improvement of agricultural statistics is therefore a matter of urgency in the Near East.

The Secretariat presented two documents on this subject which were examined by a Working Party.

The recommendations of the Meeting on this subject are in two parts, those relating primarily to action by FAO and other International Agencies and those relating primarily to action by Governments.

A. Action by FAO and Other International Agencies

1. It is recommended that FAO should continue to use facilities offered under the Expanded Technical Assistance Program for improving agricultural statistics in this region.
2. Endorsement is given to the suggestion that a Regional Statistical Institute should be established in the Near East to give professional training in statistics, and to provide guidance to, and to cooperate with national statistical agencies in organizing statistical work and research.
3. It is recommended that, for the next few years, until this Regional Statistical Institute is established, FAO should proceed with the organization of statistical training centers of several months duration, to be held in various countries of this region, for the purpose of teaching the practical aspects of statistical organization and methods.

In such training centers special emphasis should be given to detailed and realistic discussions of the efficient organization of statistical offices, the planning and conducting of censuses and surveys of various types under Near East conditions, and the processing, tabulation and presentation of data. Trainees should be given opportunity for practical statistical work in the field and in the office.

4. It is recommended that FAO should investigate possibilities of making arrangements with existing educational institutions (such as the Institute of Statistics of Fuad I University in Cairo) for raising the standards of statistical education in the Near East.

5. It is recommended that FAO statistical questionnaires sent to countries in the Near East should take account of statistical peculiarities and limitations of this region.

B. Action by Governments in the Near East

1. It is recommended that existing statistical bureaus should be strengthened by providing them with competent administrators, adequate staff, and sufficient budget, as a general policy of government, to carry out their programs of work, and that those few Member Governments in the region which do not have bureaus for collecting agricultural statistics should establish them as soon as conditions of budget and technically qualified staff permit.
2. It is recommended in view of limited resources in statistical bureaus, that the highest priority in agricultural statistics should be given to: -
 - (a) Annual estimates of the area and production of each of the main food crops, the initial data being gathered as early as practicable for each crop and the estimates being published early enough to be useful for planning the marketing of the crop.
 - (b) Annual estimates of the area, production, and processing of each of the main industrial crops.
 - (c) Annual estimates of the numbers of the principal species of livestock.
 - (d) Estimates of the prices received by farmers in each province or district for the main crops, animals and animal products sold.
3. It is recommended that statistical bureaus should take all possible measures to reduce to a minimum the delays in collecting, processing and publishing statistics.
4. It is suggested that statistical bureaus should, when publishing statistics, give a statement on the coverage of the data and the methods of collection, so that users of the data may understand the shortcomings of the data.
5. It is recommended in order to increase the number of people who have an appreciation of statistics and to promote the application of statistics to other fields of learning, that Governments should include practical elementary courses in statistical methods in the curricula of colleges of agriculture, commerce, medicine, social service, etc.
6. It is recommended in view of the fact that in most countries of the Near East there are considerable numbers of men who are not in the statistical bureaus but who are qualified by education and experience to render valuable assistance in planning statistical operations and in analyzing statistics, and who are interested in raising the quality of statistical work, that each country having a statistical bureau should establish an advisory committee to study the country's statistical needs and resources and to make recommendations on statistical programs.
7. It is recommended that governments should make statistical information available to the people in a form that will arouse their interest and it is suggested that, besides a statistical abstract giving national and district totals, a publication should be issued in cheap form for every district giving all statistical data available for each village and town of the district, together with district and national totals, and it is further suggested that such publications be distributed to local officials and schools.

V. PROGRAMS FOR THE DEVELOPMENT OF AGRICULTURE, FORESTRY AND FISHERIES AND THE IMPROVEMENT OF NUTRITION

A. AGRICULTURAL DEVELOPMENT

1. Increased Utilization of Land and Water Resources

The Near East as a whole has ample scope for increasing its cultivated area, but the limiting factor in all countries is water. Water is the most precious natural resource of the region and its conservation and utilization must be a prime objective of national policies.

Important programs for development of land and water resources, directed towards the expansion of crop area and the improvement of yields, are being undertaken in practically every country in the region. The magnitude of these programs may be seen from the account given in the basic Working Paper for this meeting on "Current Development of and Prospects for Agriculture in the Near East". In most cases, delegations have given further details and in some cases, supplementary information on their programs. During the next decade, agricultural production may be expected to benefit considerably from these works.

In order to ensure that water resources are being developed economically and with ultimate maximum effectiveness, it is essential that programs for the conservation and utilization of water include adequate provisions for undertaking basic systematic surveys. These surveys should cover underground as well as surface waters. In some instances, surveys would need to be made on a sub-regional rather than a national basis. International agreements on river basin development are also essential in a number of cases if any of the countries involved are to gain full benefit from the rivers which flow through their territories.

In the planning and execution of surveys of water resources, FAO can render invaluable assistance.

It is important that drainage and control of salinity should, everywhere, accompany irrigation. In several countries, especially in West Pakistan, Egypt, and Iraq, stopping the loss of further valuable agricultural land is a result of water-logging and salinity is a matter of urgency. The Meeting has been informed of the research and other measures now being introduced to this end.

The extension of land-area is by no means confined to opportunities for irrigation and drainage. For the region as a whole there are great possibilities in the extension of dry-farming. In particular, Iraq, Turkey and Syria possess large possibilities for expansion of area. Utilization of these areas will depend primarily on the development of mechanized farming and proper preservation of moisture.

2. Enlarged Utilization of Agricultural Requisites

(a) Machinery: The use of agricultural machinery offers advantages for many countries in the region, but at the same time a number of disadvantages can ensue unless the introduction of machinery is carefully controlled.

In countries where population is scarce in relation to land resources the introduction of mechanized farming will make it possible to bring under cultivation large areas which have not hitherto been used. Machines also make it possible to carry out operations such as sowing and harvesting more rapidly at the most favorable time and can thus lead to higher yields. The extensive use of machinery will reduce fodder needs for draught animals and make possible increased numbers of livestock for milk and meat production.

In countries where there is a surplus of agricultural labor the introduction of machinery must be carried out extremely carefully and more slowly in order not to displace farm labor until alternative work, either in agriculture or in other industries, can be found. Uncontrolled use of machinery is liable, in all countries, to increase erosion. Introduction of machinery must also be accompanied by measures either by the machinery companies or by the Government to provide ample repair facilities and the proper training of operators and mechanics, otherwise the investment will be a loss and the over-hasty introduction of machinery will create prejudices against its use. Cooperative societies or Government machinery pools need to be formed to make machinery economically available to small and middle-sized farms.

It has been suggested that to ensure that machinery becomes beneficial rather than harmful to farmers, Governments should restrict the use of machines to those which have been tried out under the supervision of the department concerned to assure their adaptability and usefulness in the locality. FAO could render a general service to Governments in assisting individual countries in laying out procedures for their experiments with agricultural machinery.

Recently it has become increasingly difficult to obtain farm machinery from supplying countries and the Meeting hopes that FAO will be able through the International Materials Conference to ensure that the needs of agriculture are properly considered. Another important fact is that manufacturers of farm machinery appear to have introduced export quotas based on shipments in recent years. In the case of countries which are just beginning to use agricultural machinery it is not sufficient that quotas should be based on past imports, since these are no indication of present needs.

(b) Fertilizers: Except in Egypt, the use of fertilizers is almost negligible throughout the region. However, information given to the Meeting indicates that fertilizer consumption is increasing in some countries. Before any extensive use of fertilizers will be possible a vast amount of basic research on soil needs will be necessary.

The utilization of town and farm wastes for production of organic manures has been discussed briefly. The experiences of Egypt, Iraq and Lebanon show that, at least until a wider market has been created such schemes need to be subsidized. In considering the cost of such subsidies the gains in town sanitation as well as in agricultural production need to be taken into account.

The Meeting notes with concern the recent increase in fertilizer prices and expressed the hope that FAO, in association with the International Materials Conference, can take steps to make fertilizers available to importing countries in reasonable quantities and at reasonable prices. As the use of fertilizers expands, the manufacture of fertilizers within the region will need to be extended.

(c) Pesticides: There is a great need for increased use of pesticides throughout the region. Nevertheless, during recent years, there is definite evidence of progress particularly in the growing awareness on the part of farmers of the value of reporting infestations in time to permit necessary action. The success reported by several countries in combatting the current locust threat is also evidence of more effective and better coordinated work in this field. However, there is room for much improvement. Suggestions for assistance by FAO are covered in the section of the report dealing with the Technical Assistance Program.

(d) Seeds: The Meeting has been able to discuss only briefly the importance of seed improvement and wishes to place on record its view that work in this field offers one of the best means of increasing production and food supplies through relatively limited investment in research and extension work. Possible measures in this field are discussed under the section on the Technical Assistance Program.

3. Improvement of Animal Production

The development of animal production along scientific lines is at present in the initial stages throughout most of the region. Losses through animal disease are high. Scientific breeding is on a very limited scale even in the most advanced countries and the feed supply needs to be expanded to provide an economic base for a flourishing livestock industry.

The Meeting heard with interest the measures taken in Egypt to improve the quality of livestock. It also considers that the vaccination with the help of FAO of 600,000 cattle in Ethiopia, with 2 million to be vaccinated over the next twelve months, is a notable development.

The Meeting expresses great interest in the work carried out jointly by OEEC and FAO for the study of grasslands in the Mediterranean region. It notes that the problems of grassland improvement in the Near East are to a great extent comparable with the problems of Southern Europe and would welcome measures for the development of a grassland study in the Near East under the Technical Assistance Program, along lines similar to those followed in the case of the Mediterranean study.

4. Extension Services

Although agricultural experimental and research facilities in the Near East are limited, agricultural leaders possess a great deal of knowledge of improved techniques which should be transmitted to farmers. Unfortunately, extension services are only in the early stages of development, except for two or three countries. The importance of developing extension services along sound lines is appreciated and accordingly,

The Meeting requests FAO to organize in the Near East an Agricultural Extension Training Center similar to the one held in 1951 in Turrialba, Costa Rica, and urges Governments to participate in such Training Center when held.

B. FORESTRY DEVELOPMENT

The Near East is at present probably poorer in forest resources than any other region. Afforestation and the care of existing forests are therefore of prime importance.

The broader aspects of forest conservancy and development in the region have been considered by a Working Party, which has studied the report prepared by the FAO Secretariat and discussed general questions of forest policy programs and the over-all situation of forestry in the Near East. It was felt that it would be wiser at this stage to confine recommendations to general matters which concern all Near East countries to a greater or lesser extent, and to leave till some future meeting items of technical detail - very important in their own way but which can scarcely be dealt with satisfactorily until adequately organized forest services have been created. Such matters as the organization of seed provenance and storage, plant protection, and silvicultural research fall in this category. It was suggested that reference should be made to the destructive proclivities of man in relation to the forest; but this too was thought to be unnecessary since the protection of the forest against the various adverse factors to which it is susceptible will follow automatically from the establishment of regular forest services and the enactment of forest legislation. Reference to the amenity aspect of forestry has likewise been omitted; for it will be time enough to talk of National Parks and the like when State-reserved forests of sufficient extent, from which they could be constituted, have been demarcated and surveyed.

The conclusions and recommendations proposed by the Working Party and approved by the Meeting are as follows: -

Since the maintenance and efficient management of forests, more particularly in regard to water-catchments, conservation of the soil and production of timber, firewood and other commodities are inseparable from the wider problem of present land utilization, the Meeting resolves that,

1. Each country in the region should formulate and adopt a sound forest policy based on the principles considered by the FAO's various Forestry Commissions.
2. Steps should be taken to educate the public to a better appreciation of the value of trees and forests, especially as they concern so vitally the farmer and his requirements, the inauguration of a National Tree Planting Day being a useful means of achieving this end.
3. A comprehensive and strong Forest Law should be enacted in each country and that close cooperation between the Forest Department and other branches of the administration in its enforcement should be insisted on.
4. The demarcation, survey and settlement of State forests should be pushed on with the utmost speed, and that steps should be taken where necessary to acquire small plots of agricultural land situated inside the forest and to compensate villagers for such rights as may have to be extinguished or commuted.

5. In those countries where large-scale topographical maps do not exist, early arrangements should be made to have them prepared as soon as possible, and in doing so, the possibility of employing aerial survey should be considered.

Since the scarcity of wood in all Near East countries is an acute handicap to the agricultural community and the need for protecting farm lands against the effects of wind erosion is very great,

The Meeting also resolves that Farm Forestry should be given a prominent place in the forestry programs of all Near East countries, by which term is meant the formation of shelterbelts and village fuel areas in the cultivated tracts, and the growing of windbreaks and farm woodlots on the individual farms; to which may be added the planting of trees along roads and canals and the growing of trees for shade and amenity.

The necessary forest personnel is in many countries inadequate in numbers and insufficiently trained to implement the objectives set forth in the foregoing resolutions.

It is therefore recommended that immediate attention should be paid to the setting up of well organized forest services, that no time should be lost in training up an adequate cadre of technical personnel, including rangers and foresters, and that the FAO should be requested to render whatever technical assistance they can so as to help the various countries in their endeavours.

Insofar as the practice of shifting cultivation is now widely recognized as an uneconomic if not ruinous form of husbandry and as one of the principal causes of denudation and soil erosion, more especially when practiced in hilly country,

It is resolved that the problem of shifting cultivation should be carefully studied, more particularly in Iraq and Syria, with a view to its reduction and ultimate abolition, and that information on methods which have proved successful elsewhere be collected.

The maintenance of free-ranging goats is incompatible with forest protection and management in any country, and is in itself a prime cause which, in conjunction with other factors, intensifies denudation and erosion.

The Meeting therefore proposes that strenuous efforts should be made to reduce the number of free-ranging goats with a view to the eventual abolition of free-ranging, that the methods so successfully employed in Cyprus should be studied, and that investigations be initiated to ascertain how best forest pasture can be improved, either by means of rotational grazing or otherwise, and the number of trees suitable for fodder and forage multiplied.

Since extreme shortage of wood fuel in many territories adds immeasurably to the problem of forest protection,

The Meeting recommends that in countries where a shortage of wood fuel exists, the possibility of introducing and if necessary subsidizing the use of alternative fuels, such as oil, should be fully considered, and that FAO be requested to undertake research with a view to finding a cheap oil burning stove within the purchasing power of the poorer classes of the population.

At present all forms of information relating to the forests of Near East countries are extremely meagre so that it is impossible to obtain an accurate account of existing forest stocks or of the potential yield of the forests and therefore a true picture of the national wealth.

It is recommended therefore that early steps should be taken to collect essential forest statistics and that the preparation of a Forest Inventory on the lines set forth in FAO Questionnaire FQ-47-2 should be set on foot.

Finally, since ecology is the foundation of silviculture, and since climate is a critical factor in agriculture and forestry in this region,

The Meeting resolves that greater attention should be paid to the study of ecological problems and that the collection of climatological data by standard methods should be initiated and information on these subjects supplied to the FAO "Mediterranean Sub-Commission" when requested.

C. FISHERIES DEVELOPMENT

Discussion of fisheries has been on a general level owing to the absence of fisheries specialists in the delegations, but the matter has been considered by a Working Party of interested delegates.

The fisheries industry is far from the state of development which it should have reached and which its importance demands. Many countries have already made considerable efforts to increase their fish production but a great deal remains to be done for sea fisheries as well as for inland fisheries and fish culture.

It is unanimously agreed that a fully developed fisheries industry would greatly help to improve the nutrition situation of the Near East where animal protein production is not only insufficient but also subject to fluctuations. Moreover, such development would aid economical stability.

The Meeting therefore recommends that:

1. FAO, which until now has devoted small attention to the region in the field of fisheries, should give as soon as possible all possible support and in particular, the necessary technical assistance should be granted to countries which request it.
2. In each country services in charge of fisheries should be given all the means of action they need and, where such services do not exist, they should be created as they are necessary to the initiation and to the continuity of a policy of development.

3. In the near future, an officer of the Fisheries Division of FAO should study on the spot with the competent authorities the problem peculiar to each country in order to facilitate the formulation of requests for technical assistance.

D. IMPROVEMENT OF NUTRITION

Improvement of the people's nutrition is one of the basic objectives of FAO and is also becoming a basic objective of government policy in many countries.

1. Current Nutritional Situation

Most of the delegations which presented reports on the current nutritional situation agree that there are serious nutrition problems in their countries. On the other hand, a few declared that the situation was satisfactory although they admitted the occurrence of some deficiency diseases like rickets. In practically all cases, however, these conclusions are mere impressions and are not based on any systematic studies by competent investigators.

Moreover, the absence of frank signs of deficiency diseases does not necessarily mean that these do not exist in sub-clinical forms.

Judging from the data collected on total food supplies for human consumption, it is clear that the average diets are bound to be nutritionally inadequate in most of the countries. This unsatisfactory situation is further accentuated in the cases of poorer classes, who form the vast majority of the population in this region, due to inequitable distribution of the available supplies.

2. Nutrition Surveys

In order to formulate any plans for improvement, it is necessary to have some basic information on present food consumption levels and nutritional status, but such information is either incomplete or even totally lacking now. It can be obtained by systematic and comprehensive nutrition surveys which can only be conducted satisfactorily by local workers who intimately know local conditions. In this connection, the Meeting would like to point out that a number of suitable local personnel, who were trained at the Nutrition Training Center in Cairo, last year, are now available to carry out such surveys in most countries of the region. It is gratifying, therefore, to report that all Governments are now aware of the urgent need to start these investigations and that some of them have already achieved significant progress.

3. Establishment of Nutrition Bureaus.

After receiving the reports presented on the current nutritional situation in the region, which indicate it to be generally unsatisfactory, and realizing the need for more exact information,

The Meeting urges all Governments in the region, who have not done so already, to establish without any further delay a nutrition service or bureau. The initial work of these services or bureaus should be the collection of necessary information on food consumption levels and nutritional status. This should be followed later by studies of specific

problems which would be the basis for drawing up practical programs for the solution of these problems.

4. Nutritionally Desirable Goals.

When the necessary information on the major defects of the present food supplies and the nutritional status is available, it will be possible to consider ways and means of correcting them. In order to do this effectively, food consumption goals or targets based on nutritional requirements of the population concerned must be set up. This is essential because improvement of nutritional levels is one of our basic objectives. However, such goals are easier to establish on paper than to attain in practice. It is necessary, therefore, to set up for each country realistic "intermediate" targets which are considered to be attainable within reasonable periods of time. Locally produced as well as imported food supplies can thus be gradually directed towards nutritionally desirable goals in successive stages. In addition to this long term program, there is a great need, for the present, to protect the nutritionally vulnerable groups of the population such as pregnant and nursing mothers, infants and growing young. This can be achieved largely through special feeding programs designed to improve their nutrition.

5. National Nutritional Organizations

None of the above measures, however, can be developed effectively without the necessary funds and organization, technical as well as administrative. The establishment of an effective nutrition service or bureau, which has already been referred to, would be the first step in this direction. It should be emphasized here that the task of raising levels of nutrition involves simultaneous advances in all other fields of activity which have any direct or indirect influence on them. One example of this inter-relationship between nutrition and other fields, which is of special interest in this region, is the well-known relation between parasitic infestation and the occurrence of deficiency diseases. Other instances are the deleterious effects of cash and single crop economies on the diets of rural people and the possible dangers of farm mechanization by reducing the animal population and consequently the supplies of meat and milk for human consumption. It is thus essential not only to establish nutrition services but also to coordinate their activities with all other programs related to health and welfare in general. This task can, therefore, be handled only by a mixed group consisting of official and non-official experts and specialists in the fields of nutrition, public health, agriculture, economics, social welfare, etc. Such groups, which now exist in a few countries of the region and function as their National Nutrition Organizations, are essential in helping to develop sound national policies and programs related to food and nutrition.

The Meeting recommends strongly to all Member Governments which have not yet done so the establishment of National Nutritional Organizations in their countries along the lines described above, as suggested already by the First Near East Regional Meeting held in Beirut during 1949. The main functions of these Organizations should include: -

- (a) Development of a sound food and agricultural policy by setting up food consumption targets based on the nutritional requirements of the population and by endeavouring to see that food supplies are gradually directed towards the attainment of these targets.
- (b) Coordination of all activities which influence nutritional status either directly or indirectly. e.g. special feeding schemes for improving the nutrition of vulnerable groups, technical and general education in nutrition, eradication of diseases, etc.

6. Assistance to Governments.

The Meeting considered the wishes expressed by various delegations on the need for sound assistance and advice in developing nutrition activities, especially in their initial stages, and, therefore,

The Meeting recommends to FAO that necessary assistance and advice on nutrition should be made readily available to Governments when requested.

7. Consumption Targets for 1960.

In view of the need to establish food consumption goals based on nutritional requirements, discussions were held during the Meeting between each delegation and the Secretariat on the setting up of long-term (1960) objectives. Such objectives would also provide one important basis for agricultural production policy.

In the case of a few countries, for which necessary data on present food supplies and other relevant factors are available, figures proposed by the Secretariat were used as a basis for discussion. It was understood, however, in every case, that the delegations would place these tentative targets later on before their national authorities and communicate to FAO their considered views in due course. Some provisional conclusions, which emerged from the above discussions, can be summarised as follows: -

- a. For those countries in which the average calorie intakes are below their requirements it would be desirable to increase supplies of cereals, pulses, nuts, tubers, starchy roots, fats and other foods which are good sources of energy.
- b. In countries where the calorie levels are adequate but the protein intakes are low it will be preferable to increase supplies of pulses, nuts and especially foods of animal origin as far as practicable. In this connection, the great scope for increasing fish supplies should be emphasized in view of their high nutritive value and the availability of as yet unexploited resources.
- c. Although data on fruits and vegetables are very incomplete for most countries, there is no doubt that increases in their supplies are nutritionally desirable.

As to the countries for which the necessary data are not presently available, the nature and purpose of the targets were explained to the delegations who were requested to do their best in collecting the required information and communicating it to FAO together with their views on possible 1960 targets which would be nutritionally in the right direction and also agriculturally practicable.

E. RURAL WELFARE

1. General.

After hearing statements from delegates on various aspects of rural welfare activities in countries concerned.

The Meeting recommends that

1. As far as its financial situation allowed it to do so, FAO should expand its rural welfare work.
2. Governments should devote adequate attention and funds to the development of rural welfare activities in conjunction with activities in the fields of economic and agricultural development.
3. Governments should encourage to the full the voluntary cooperation and interest in rural welfare activities on the part of rural populations.

2. Cooperatives.

After hearing from various delegates an account of cooperative activities in their respective countries,

1. The Meeting endorses and brings to the attention of all Member Governments of FAO in the region the relevant recommendations made by the Second Social Welfare Seminar for Arab States in the Middle East held in Cairo during November-December 1950, in particular that :
 - (a) "All such Governments take action as soon as possible to implement the (cooperative) movement and to encourage the organization of cooperative societies".
 - (b) "The Arab League, in cooperation with the competent international organization, undertake to call a technical conference on Cooperation in the Arab States with a view to studying problems, methods and trends of the cooperative movement and the constitution of an Arab Cooperative Alliance or Federation to coordinate, plan and encourage people and Governments to organise cooperatives in Arab lands."

2. The Meeting also urges the Arab League, the FAO and other international organizations concerned to organize as soon as possible the Technical Conference on Cooperatives in the Arab States referred to in the preceding paragraph and to which all countries attending the present Meeting should be invited.
3. The Meeting also encourages Member Governments who are in need of it to seek from FAO and that Organization to provide expert advice and assistance, particularly in regard to the training of technical staff for cooperative work through such media as the provision of fellowships; and the organization by the FAO under its Expanded Program of Technical Assistance of a training center on cooperatives for Near East Governments.

3. Agrarian Structure.

In the discussion that took place on the problem of land tenure, there was full realization that in most of the countries of the region, the present agrarian structure hinders a rise in the standard of living of small farmers and agricultural laborers and impedes economic development.

Among the unsatisfactory features of the present agrarian structure which are found in one part of the region or another are the maldistribution of land ownership with a concentration of large estates insufficiently utilized and the landlessness of a large part of the rural population; the uneconomic size of farms; the fragmentation of holdings; the high rents and insecurity of tenure characteristic of many tenancy systems; indebtedness and lack of adequate credit facilities for the small farmer; absence of settled title to land and water; taxation policies which impose undue burdens on the small farmers and farm labourers, and in general, an unsatisfactory set of incentives for rising and sustained agricultural production.

In some countries of the region, steps are already being taken with the object of improving hitherto existing systems of land tenure and other aspects of the agrarian structure. In others, such action as has so far been taken is primarily experimental in nature and will almost certainly be modified and adapted in the light of experience.

The Meeting took note of the resolution of the General Assembly of United Nations at its meeting in November 1950 that,

"The Secretary General, in cooperation with the Food and Agriculture Organization and in consultation with other appropriate specialized agencies, prepare and submit to the thirteenth session of the Economic and Social Council an analysis of the degree to which unsatisfactory forms of agrarian structure and, in particular, systems of land tenure, in the under-developed countries and territories impede economic development and thus depress the standards of living especially of agricultural workers and tenants and of small and medium-sized farmers".

Recognizing the paramount importance that must be attached to any steps which can be taken to improve conditions of land tenure in the countries of the region, recognizing also that the primary responsibility for any action along such lines rests with Governments themselves, and recognizing further that the whole question of land tenure is to be considered by the next session of the Conference of FAO in November 1951,

The Meeting encourages the Member Governments of the region to press on with plans they are making in this direction.

VI. NEAR EAST TRADE IN FOOD AND AGRICULTURAL COMMODITIES

The Meeting briefly reviewed the prospective volume and composition of food and agricultural trade in the Near East with particular reference to 1952/53. Targets and programs suggest that the Near East would find itself in a position which in many respects is similar to that of prewar years. The region would still be faced with the risk of grain shortage in bad crop years alternating with limited surpluses in good years. Traditional Near East exports of oil seeds and oil, fresh and dried fruits dates and vegetables are likely to be maintained in quantities somewhat in excess of prewar levels and capable of further increase as production is expanded. Export availabilities of cotton may rise sharply as a result of current expansion.

The realization of the above pattern depends however on the attainment of production targets and programs, and it was noted with some concern that at least in the immediate postwar period, both as a result of higher food requirements due to continued high rates of population increase and of unfavorable weather conditions prevailing in several recent years, a marked shift had taken place in the Near East as a whole towards greater dependence on grain imports in contrast with the prewar period when the region was a net exporter. It was also noted that Near East exports of agricultural products are and will continue to be a major source of foreign exchange.

In view of these facts and the need for assurance of supplies under emergency conditions, and considering that it is to the interest of Governments to obtain as clear a picture as possible of the region's food and agricultural trade both within the Near East and with other parts of the world,

The Meeting urges FAO to undertake a comprehensive study of the current and prospective volume and composition of Near East trade in food and agricultural commodities, possibly along the lines of the studies now in progress on trade relations between Europe and Latin America and Europe and the Far East.

The Meeting also considered possibilities of increasing its international and intra-regional trade. It recognized that for the region to maintain and strengthen its position in world trade, it will be necessary to give greater attention to possibilities of lowering prices through cutting down on cost of production, transport and handling of the major export crops.

Moreover, the competitive position of the Near East could be materially improved by the institution and operation of additional services to control the quality of important export commodities. As export surpluses from other regions expand, foreign buyers are likely to become more exacting regarding quality, cost, grading and packing.

The Meeting therefore recommends that Governments themselves pay attention to this and also give effective support to any initiative taken in this connection on the part of private growers and agricultural cooperatives.

There is evidence that in a number of instances complex plant quarantine regulations have a limiting effect on the volume of trade in food and agricultural commodities. The Meeting recognizes that in the control of insect pests and plant diseases, the adoption and application of appropriate quarantine regulations is a matter of far-reaching importance.

The Meeting therefore requests FAO to complete arrangements for the adoption and the administration of the International Plant Protection Convention, and to consult with Near East Governments regarding the organization of a special meeting to consider the formation of a regional organization and the drafting of a Near East Plant Protection Convention.

VII. FINANCING OF AGRICULTURAL DEVELOPMENT PROGRAMS

The Meeting discussed briefly the problems connected with the financing of agricultural development and wishes to recommend that: -

1. All countries recognize the predominant importance of reserving the largest possible share of their national income for the purpose of financing projects for the development of their economic resources.
2. In those countries for which the terms of trade are now favorable, steps should be taken to reserve the largest possible share of the revenues derived from exports for the creation of reserves, to be spent for economic development.
3. A proper balance should be established between the funds spent for investment in agriculture and funds for investment in other economic activities, taking into account the vital role which agriculture has to play in the economy of almost every underdeveloped country.
4. Countries should make full use of the existing facilities for international financing.
5. To facilitate the preparation by Governments of well-formulated requests for external financing, FAO should assist countries in drawing up development plans in the field of agriculture by making experts available to countries, at their request under the Expanded Technical Assistance Program.

6. FAO and the International Bank should maintain the closest cooperation on a working level (e.g. through joint survey missions) in order to ensure that the Bank in formulating its economic appraisals makes the fullest use of the experience and the specialized knowledge of agricultural problems which is available to FAO.

VIII. ACTIVITIES OF FAO IN THE NEAR EAST

A. FAO's Regular Program

The Meeting heard a statement made by the Director-General in which he reviewed FAO's basic activities and the proposed Program of Work for 1952/1953. Special reference was made to the recommendations of the Working Party on the Program of Work and Associated Long-Term Problems, established by the 1950 Conference.

The Meeting noted with appreciation that FAO's activities cover a wide field and is satisfied that FAO is placing particular emphasis on work related to the development of agriculture in less developed areas of the world. In particular there is a great need for fixing increased attention on assisting countries in establishing well balanced programs of agriculture development.

Although it is necessary to maintain a strong permanent staff at the Headquarters of the Organization in view of the need for an effective coordination of the regional activities with those at Headquarters,

The Meeting endorses the efforts made by FAO to strengthen its Regional Offices, in particular that in the Near East, and recommends that all possible measures be put into effect to make these offices as effective as possible.

With regard to the present budget of the Organization, some doubts were expressed as to its adequacy in view of the steady expansion in FAO's scope of work since FAO came into being.

The Meeting recommends that the adequacy of the budget of the Organization be considered at the next Annual Conference in Rome in November 1951 with a view to establishing a proper balance between the activities which the Member Governments wish FAO to carry out and the financial resources available for that purpose.

B. FAO's Expanded Technical Assistance Program.

After discussing fully the statement of the Organization's Technical Assistance activities,

The Meeting recommends to the Member Countries in the Near East that they make full use of the possibilities offered by FAO's program of Technical Assistance.

The Meeting notes with satisfaction that FAO has concluded agreements with ten Member Countries in the region providing for 105 experts to be supplied during the first financial period. It notes with a apprehension that FAO's total allocation out of the Special Account has been committed prior to the end of the financial period and,

The Meeting urges Member Governments, through their representatives, to use their influence at the meetings of the appropriate United Nations bodies towards obtaining a larger allocation for the second financial period.

Appreciation was expressed regarding the technical competence and cooperative attitude of the experts supplied by FAO.

The great value of the scholarship program was stressed. However,

The Meeting urges that the provisions of scholarships be made less dependent on requests for experts on specific projects, so as to cover urgent needs of governments for the training of personnel in fields where a nucleus of competent national officials makes the assignment of outside experts unnecessary.

The Meeting welcomes the initiative taken by FAO to organize Training Centers on the Economic Appraisal of Development Projects and

The Meeting urges Member Countries to make the fullest use of the training facilities offered, and further the Meeting endorses FAO's intention to organize a Training School for Cooperative Staff.

The Meeting is aware of the great necessity for agricultural research in the region. In this respect,

The Meeting urges Governments to expand their own national research facilities as far as possible within their means.

The suggestion was made that there should be established a Central Research Institute for the region, to be financed by FAO. However, the Meeting recognising FAO's budgetary limitations, came to the conclusion that an alternative solution could be found through cooperation in and coordination of research within the region. Existing research institutes might be expanded to take care of research needs in special fields which are of high interest to more than one country or the whole region, and FAO would be asked to supply specialized staff and a certain amount of equipment under the FAO program. In order to make these efforts really cooperative and useful for the whole region, technical working groups of the specialists in the different countries might be set up along the pattern of FAO's Rice Breeders Working Party in the Far East and the European Hybrid-Maize Working Party.

The Meeting requests the Secretariat to study further and submit proposals for the organizing of such working parties in the fields of crop improvement, animal disease control, and land and water utilization.

- 7 -

It was suggested to Member Governments to study the possibilities for joint action in these fields and submit proposals for priorities to the Secretariat.

The Meeting took note of the resolution by the FAO Council at its meeting in June 1951 regarding FAO's coordinating functions in the national and regional efforts to control the desert locust. While stressing that there exists a great number of qualified technicians within the region, which makes the rendering of technical assistance through outside experts unnecessary, the Meeting recognizes that FAO can exercise a useful coordinating function in assessing the overall requirements for equipment and supplies needed to bring the locust situation under control and generally to assist in securing such equipment and supplies from Member Countries in a position to help.

IX. REGIONAL MEETINGS ON FOOD AND AGRICULTURAL PROGRAMS AND OUTLOOK

The Second Regional Meeting considers, with special reference to its preceding recommendations on food and agriculture planning, that it is of great value to the nations of the Near East to convene from time to time in order to examine the regional food and agricultural situation. The Meeting is pleased to note that, thanks to a greater understanding of the objectives, Governments have increased the volume and accuracy of the information provided to FAO in 1951, and FAO has made a very considerable achievement in analysing and presenting this information in an orderly, clear and useful form. As a consequence, the documentation for the Second Meeting constitutes a great advance over that of the First.

The Second Regional Meeting therefore recommends to the Director-General to plan for a third meeting on food and agricultural programs and outlook in the Near East, to be held at the most convenient time before the Seventh Session of the Conference of FAO, which probably will be held in 1953. The Second Meeting considers that the selection of the exact date and place of the Third Meeting should be at the discretion of the Director-General, with due regard to the convenience of the Governments of the region.

At the same time, the Meeting recommends that the Near East Governments prepare with care and submit to FAO in good time the information which will serve as the basis of the documentation for the next meeting; and urges these Governments also again to send to that meeting persons technically qualified to contribute to forming a regional body of thought on food and agriculture by participating actively in its discussions.

The Meeting also recommends that the delegates, on returning to their countries should not only submit reports to their Governments, but should also gather together the technicians concerned, and inform them, by lectures, through the press, or by any other means, of the importance and the details of the work accomplished at this Second Regional Meeting. In this way, a contribution will be made toward establishing public interest in these matters.

In conclusion, the Meeting wishes to express its deep appreciation and gratitude to the Government of Syria for acting as host to the Meeting, to the Chairman and Vice-Chairmen for carrying through the work so expeditiously and satisfactorily, and to the Secretary-General and members of the FAO Secretariat for the efficient preparation and conduct of the Meeting.

APPENDIX A

DELEGATES AND OBSERVERS ATTENDING THE SECOND REGIONAL MEETING

ON FOOD AND AGRICULTURAL PROGRAMS AND OUTLOOK

IN THE NEAR EAST

1. EGYPT

- | | |
|--------------------------------|---|
| H.E. Mohamed Ali El-Kilany Bey | - Under-Secretary of State,
Ministry of Agriculture. |
| Dr. Ali Hassan Bey | - Technical Adviser, Ministry
of Public Health, and Professor
Fuad I Faculty of Medicine,
Cairo. |
| Mahmoud Fahmy Bey | - Sub-Director of Fellah Department,
Ministry of Social Affairs. |
| Mr. Hassan Abdallah | - Agricultural Specialist,
Ministry of Agriculture. |

2. ETHIOPIA

- | | |
|----------------------|-----------------------------|
| Mr. Michel Boutros | - Ethiopian Embassy, Cairo. |
| Mr. Perry A. Fellows | - Director of Planning. |

3. FRANCE

- | | |
|------------------|--|
| Mr. C. Boeglin | - Commercial Counsellor for
Syria and Jordan. |
| Mr. P. Casalonga | - Commercial Counsellor for
Lebanon and Iraq. |

4. IRAQ

- | | |
|------------------------|---|
| Darwish el Haidary Bey | - Director-General of Agriculture. |
| Dr. Dhia Ahmed | - Director of Plant Protection,
Director-General of Agriculture. |

5. HASHEMITE KINGDOM OF JORDAN

- | | |
|------------------------|--|
| Mr. Abdul Rahim Khalaf | - District Agricultural Inspector,
Ministry of Agriculture. |
| Dr. L. D. Schweng | - FAO Agricultural Economist, Adviser
to Ministry of Development. |

6. LEBANON

- | | |
|---------------------|---|
| Mr. Maurice Zouain | - Director-General of Agriculture. |
| Mr. Boules Boules | - Chief, Agricultural Economics Section, Ministry of Agriculture. |
| Dr. Khalil Chami | - Chief Medical Inspector, Ministry of Health. |
| Dr. H. Sareyed Dine | - Director of Infant Welfare Centre, Beirut. |
| Aly Tabbara Pasha | - Chief, Agricultural Services. |

7. PAKISTAN

- | | |
|------------------------------|--|
| His Excellency A.G.N. Pathan | - Minister of Food, Agriculture, Education and Health, Government of Sind. |
| Mr. A. M. Khan | - Deputy Secretary, Ministry of Food and Agriculture. |

8. SAUDI ARABIA

- | | |
|---------------------------|--|
| Mr. Al Sayed Ahmad O'Beid | - Director of Agriculture. |
| Mr. Sadek Hussein | - Adviser, Department of Agriculture. |
| Mr. Mohamed Badkuk | - Chief of Horticultural Section, Department of Agriculture. |

9. SYRIA

- | | |
|-------------------------|---|
| H. E. Mohamed Moubarek | - Minister of Agriculture. |
| Amin Bey Nazif | - Director-General of Agriculture. |
| Mr. Djemil Akhrass | - Director of Agriculture. |
| Mr. Djaoud Azme | - Director of Forestry Services. |
| Dr. Abdel Rahman Daccak | - Director of Veterinary Schools. |
| Dr. Ihsan Joukhadar | - Director of Labor and Social Affairs, Ministry of National Economy (also representative of I.L.O.). |
| Dr. Wassel Katabi | - Director of Economic Affairs, Ministry of National Economy. |
| Mr. Faiz el Khoury | - Statistical Adviser, Ministry of National Economy. |
| Dr. K. Kouzbari | - Chief of Agricultural Research, Ministry of Agriculture. |

9. SYRIA (cont'd)

- | | |
|--------------------------|--|
| Dr. Soubhi Mazloun | - Director of Irrigation and Water, Power, Ministry of Public Works. |
| Dr. Massouh Mourabet | - Medical Officer, Ministry of Public Health, Pediatrician, Chief of Nutrition Office. |
| Mr. Djemil Maalla | - Chief, Department Agricultural Education, Ministry of Education. |
| Mr. Abdulsattar Nouelaty | - Director of Commerce, Ministry of National Economy. |
| Dr. Youssef Samara | - Director of Agricultural Statistics. |
| Dr. Faiz Tayeh | Director of Veterinary Services. |
| Dr. Yassin Zakaria | - Ministry of Finance. |

10. TURKEY

- | | |
|-------------------|--|
| Mr. Niyazi Okanay | - Director of Cotton Works, Ministry of Agriculture. |
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11. UNITED KINGDOM

- | | |
|------------------------|--|
| Mr. W. F. Crawford | - Director, British Middle East Office, Cairo. |
| Mr. W. J. W. Cheeseman | - Cooperative Adviser, British Middle East Office, Cairo. |
| Mr. H. F. Mooney | - Forestry Adviser, British Middle East Office, Cairo. |
| Mr. R. S. Porter | - Assistant Statistical Adviser, British Middle East Office, Cairo. |
| Mr. P. Loizides | - Agricultural Department, Cyprus. |
| Mr. E. H. Probyn | - Senior Assistant Conservator of Forest, Forestry Department, Cyprus. |

INTERNATIONAL ORGANIZATIONS

12. I.L.O.

- | | |
|---------------------|---|
| Dr. Ihsan Joukhadar | - I.L.O. Representative (also member of Syrian Delegation). |
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INTERNATIONAL ORGANIZATIONS (cont'd)

12. U.N.R.W.A.

- | | |
|-----------------|--|
| Count A. Knuth | - U.N.R.W.A. Representative to
Iraq, Bagdad. |
| Mr. P. E. Booz | - Economics Adviser, Amman. |
| Dr. S. Falkland | - Deputy Chief, Health Division,
Beirut. |
| Mr. H. E. Kunde | - Chief, Technical Assistance
Division, Beirut. |

14. U.N.E.S.C.O.

- | | |
|----------------|---|
| Mr. M. Batisse | - Scientific Officer, Middle East
Science Cooperation Office, Cairo. |
|----------------|---|

15. U.N.I.C.E.F.

- | | |
|--------------------|--|
| Mr. H. Ehrenstrale | - Chief, UNICEF Middle East Office,
Beirut. |
|--------------------|--|

16. NEAR EAST FOUNDATION

- | | |
|-----------------|-----------------------------------|
| Mr. J. Moussali | - Agricultural Officer, Damascus. |
|-----------------|-----------------------------------|

FAO STAFF

- | | |
|---------------------|---|
| Mr. Norris E. Dodd | - Director-General. |
| M. T. Hefnawy Pasha | - Regional Representative of the
Director-General for the Near East. |

MEETING SECRETARIAT

- | | |
|-------------------|--------------------------------------|
| Mr. A. C. Janssen | - Secretary-General of Meeting. |
| Mr. Y. M. Abed | - Economics Division (Headquarters). |
| Mr. K. A. Bennett | - Administrative Officer (NERO). |
| Mrs. D. Castro | - Secretary (NERO). |

TECHNICAL OFFICERS

- | | |
|---------------------|---|
| Dr. M. A. Abbasy | - Nutrition Division (NERO). |
| Dr. A. H. Boerma | - Director, Economics Division,
Headquarters. |
| Mr. R. Fontaine | - Forestry Division (Headquarters). |
| Mr. G. A. Gibbons | - Economics Division (NERO). |
| Mr. M. J. Girard | - Fisheries Division (Headquarters). |
| Mr. J. H. Hammad | - Information Division (NERO). |
| Mr. W. H. Pawley | - Agriculture Division (Headquarters). |
| Dr. K. K. P. N. Rao | - Nutrition Division (Headquarters). |
| Mr. M. Said | - Information Division (NERO). |
| Dr. F. T. Wahlen | - Director, Agriculture Division,
and Chief, E.T.A.P., (Headquarters). |

APPENDIX 'B'

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B. CURRENT DEVELOPMENT OF AND PROSPECTS FOR

AGRICULTURE IN THE NEAR EAST

A Working Paper presented to the Second Near East Regional Meeting
on Food and Agricultural Programs and Outlook

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S Y M B O L S

- ... Data not available
- None, in negligible quantity (less than half the unit used) or entry not applicable
- * Unofficial figures
- // Forward estimates established by the FAO Secretariat
- () In Statistical Appendix : Interpopulations
- () In text : References to Notes, page 92

CURRENT DEVELOPMENT OF AND PROSPECTS FOR AGRICULTURE IN THE NEAR EAST

F O R E W O R D

The FAO Secretariat has prepared this Working Paper as a basis for discussion at the Second FAO Near East Meeting on Food and Agriculture Programs and Outlook to be held in Bloudans, Syria, beginning on 28 August 1951.

By that time two years will have elapsed since the previous meeting of FAO Member Governments in the Near East which convened in Beirut in September 1949. It would, therefore, seem desirable to survey the progress made by the countries in the Near East towards their agricultural objectives, and explore the possibilities for further action through their own efforts, through exchange of experience and through the assistance of FAO.

The following document is an attempt to provide material which will help serve this purpose, having in view the items listed in the Provisional Agenda. It is not intended to cover all the Agenda, but is directed chiefly toward important aspects of items 2, 3 and 4.

Since the Beirut meeting was held, considerable information has become available to the Secretariat regarding plans and programs of agricultural development in the Near East. Three countries, namely Egypt, Iran and Turkey, submitted official targets for 1952/53 production, trade and consumption levels, in response to the Director-General's letter G/E/8. In addition, extensive documentation was assembled through direct consultations with Near East Member Countries. Yet there remain important gaps to be filled with the assistance of the Governments. It is hoped that delegates will be prepared to supply such additional information as is possible about conditions and policies in their countries. Only thus will it be possible to arrive at a balanced appraisal of the region's current and prospective food and agriculture situation. Such an appraisal, which it is hoped will be developed at the meeting, might also usefully take into consideration certain subjects related to agricultural development such as transportation and storage of foods and processing of agricultural products which, within the limitations of this Working Paper, can only be mentioned in passing. Furthermore, in their deliberations, Governments may wish to give attention to the important link between forestry and other utilizations of the soil on the one hand and on the other, to the problems of rational development and utilization of aquatic resources with a view to increasing the supplies of nutritionally-needed proteins.

The geographical coverage of the Near and Middle East has been a subject of controversy for a long time. For the purposes of the present document, the region is defined in a broad sense, extending from Turkey in the north to Ethiopia in the south, and from Egypt in the west to Afghanistan and West Pakistan in the east. Since statistical data for the last area are not available, Near East totals for production, trade and consumption exclude West Pakistan. Conclusions drawn from such tables are, therefore, not always applicable to conditions in this area. Where available information permits, West Pakistan has been discussed separately.

PART I - PRESENT SITUATION AND OUTLOOK

A. Levels of Supply of Food and Agricultural Commodities during 1950 and Outlook.

For the Near East as a whole, the total volume of food and agricultural production in 1950 was higher than that in any other post-war year, and appreciably above that of 1949. Exceptions to this favorable overall situation were the short grain crops in Egypt and Jordan, the lower cotton output in Egypt and the failure of the olive crop in Jordan, the Lebanon and Syria.

The main characteristics of change in area and production of major food and agricultural commodities in 1950 compared with the preceding year are summarized in table 1:

Table 1 - Changes in Area and Production of Principal Crops in 1950 Compared with 1949

Commodity	1950 preliminary	Change from 1949	1950 preliminary	Change from 1949
	Area 1,000 ha.		Production 1,000 m.t.	
Total grains ^{1/}	20,600	+ 900	21,000	+ 2,800
Wheat	11,600	+ 400	10,500	+ 1,600
Barley	5,700	+ 500	5,100	+ 900
Maize	1,500	-	2,200	-
Rice	1,000	-	2,400	+ 100
Potatoes	110	-	950	+ 160
Pulses	1,600	-	1,200	- 100
Sugar	...	...	330	- 10
Citrus fruits	...	...	640	- 30
Oilseeds and Oils	...	...	580	+ 30
Cotton	1,800	+ 500	690	+ 100
Tobacco	170	-	110	-

^{1/} Including rye and oats, excluding millets and sorghums

Near East grain production, which declined in 1949, recovered substantially during 1950 owing both to the expansion in area and improved yields. The chief gains were in wheat and barley, production of which exceeded that of the previous year by 2.5 million tons; output of other grains, particularly rice, also increased. No significant changes were noted in production of maize. In Syria and Iraq record crops of wheat and barley were harvested. In Turkey, output of wheat and barley was about 50 percent higher than in 1949, but remained over one million tons below the level attained in 1948, the expected bumper crop of wheat failing to materialize. In other countries good to average grain crops were harvested, but in Egypt and Jordan wheat and barley production declined. On the other hand, Egypt harvested an excellent rice crop.

Because of the continued high demand for cotton, and the expectation of a further rise in prices, the area under cotton expanded rapidly in 1950 with Egypt and Turkey accounting for almost one half of the total increase of some 500,000 hectares over 1949. Relatively large expansion also took place in countries like Iran, Iraq, Syria and the Sudan. For the region as a whole, output was some 100,000 tons higher than in 1949, the total volume of production remaining below expectation due to low yields in Egypt.

Among other crops, fruits (other than citrus), dates, vegetables and potatoes showed appreciable increases in output. With regard to oilseeds, higher supplies of cotton seed and other oil bearing crops were partly offset by a serious decline in output of olives as a result of extensive frost damage, particularly in Jordan, the Lebanon and Syria.

According to available information, output of pulses, sugar, citrus fruits and tobacco for the Near East as a whole appears to be at or somewhat below 1949 levels.

Data for livestock products are incomplete. Indications are that feed supplies and pasture conditions were generally adequate and that supplies of meat and other livestock products were about equal to, or slightly above, the average of preceding years in most countries.

The larger volume of food and agricultural production was reflected in the greater availability of food supplies and the increased exportable surpluses of some countries. The Korean crisis led to a marked rise in foreign demand for Near East commodities and during the second half of 1950 most countries have been exporting at higher rates than in the corresponding period of the preceding year. In general, the value of exports in 1950 was higher than in 1949 while the value of imports declined or increased less than that of exports. ^{1/} Cotton from Egypt, Turkey, Syria and Iraq found ready markets and there were also increases in the exports of wool and hides and skins. In contrast, the problem of unmarketable surpluses of certain perishable products, such as vegetables, potatoes and fruits, continued to cause concern among producers in the Lebanon. Tobacco exports from Turkey declined appreciably from the 1949 level.

Imports of foodstuffs into Egypt increased in 1950. In order to maintain consumption following the shortfall in grain output, it was necessary to import larger quantities of wheat, flour and maize which totalled about 700,000 tons in 1950 as against some 600,000 tons in 1949. Imports of other food products, such as sugar, also increased.

Outlook

With favorable weather for fall sowings and adequate spring rains in most parts, yields are expected to be better in 1951 than in 1950. Crop production in Jordan and in certain parts of Syria may, however, show a decline owing to drought conditions.

The generally favorable weather conditions for increased food production in the Near East in 1951 may be partly offset by other factors: firstly, should the reported invasion of locusts fail to be checked by international efforts, crop losses in the Near East and in the adjoining Far East countries, might be serious; secondly, the increasing shortage of agricultural machinery, fertilizers and pesticides containing sulphur, due to western rearmament programs, may seriously affect intensive cropping in Egypt and Turkey; thirdly, the sharp rise in world demand and prices of cotton has greatly increased the economic return from cotton growing as compared with cultivation of grain crops.

According to commercial sources, the production of cotton in the Near East in the consumption year 1951/52 may show an increase of 30 percent over the previous year.⁽¹⁾ The relative increase in production is expected to be less in Egypt than in Turkey, Syria, Iran and Iraq. The expansion of cotton cultivation in Syria has apparently taken place at the expense of certain food crops and a similar diversion of land may have occurred in several other countries. In Egypt, area and production of wheat, maize and barley show significant gains in 1951 and the Egyptian authorities raised the guaranteed prices to wheat growers, beginning with the 1952 crop, in order to offset the danger of food shortage resulting from expansion of cotton growing at the expense of food crops.

^{1/} For further details, see Chapter 2 - International Trade.

B. Demand Conditions and Levels of Consumption during 1950 and Outlook

During the first half of 1950 business activity, particularly in trade and industry in most countries of the region, continued at the depressed levels of 1949. In Egypt and Iraq, however, as a consequence of the monetary devaluation of September of that year and the subsequent improvement in export prices and the volume of exports, income levels were somewhat improved. The situation in the textile industry in Egypt, however, remained unfavorable. In Turkey the bad crops of 1949 resulted in a decline in total consumer income and expenditures, and caused a recession in industry, especially textiles, that lasted until the middle of 1950. Large imports of food, however, helped to alleviate the situation of the consumers and maintained the levels of supplies during the second part of 1949 and the beginning of 1950. In Iran, Lebanon and Syria, large import surpluses and sharp contractions in private investment were the main factors in the decline in incomes. Levels of food consumption, however, were unchanged, as food supplies were generally maintained either by normal crops or by government action designed to increase food imports and to keep down food prices.

By the middle of 1950 the whole picture changed: first, as a result of the improvement in the agricultural sector and second, by an increase in the rates of private investment following the Korean outbreak. Employment generally rose and the level of consumer incomes improved. By the end of 1950, business activities had resumed to a significant extent although they seemed to remain somewhat lower than during the immediate postwar years when, due to persisting inflationary pressures, private investment reached a peak and highcost industries were supported by inflation and pent-up demand. In Egypt the decline in volume of agricultural production during 1950 was more than counterbalanced by a further rise in export prices, particularly for cotton. The impact of higher world prices affected the internal price structures and the strengthening of foreign demand created an easier outlet for certain of, but not all, the relatively higher exportable surpluses of Near East countries. The levels of total private incomes benefited from these developments and during the first part of 1951 for various countries seem to be higher than in either 1950 or 1949.

There is no indication of recent changes in wages and salaries, but as farm and industrial employment have been lately on the increase, it may be assumed that total labor income since the last part of 1950 is also at higher rates. It is, however, difficult to assess whether this increased total income is reflected in higher per caput levels, especially when account is taken of the growth in population; and whether those higher income rates represent an improvement in real income of workers in view of changes in consumer prices and the cost of living.

Trends in prices and cost of living index numbers, in fact, have been reversed since the second half of 1950. The declining trend in wholesale prices during 1949 was stopped or slowed down during the first half of 1950 for most countries of the region, and during the second half especially toward the end of the year, wholesale prices generally rose. The rate of increase was more pronounced for export than for import prices. Prices of domestically produced goods also increased. At the retail level, prices rose, but later and less. In Turkey and Iran food prices were unchanged or increased relatively less than those of other consumer goods. In food deficit countries such as Egypt and Lebanon the increase in food prices kept pace with that of other consumer goods. Up to the first quarter of 1951 advances in wholesale prices as compared with the levels prevailing in June 1950 have averaged some 10 per cent, and advances in the cost of living, generally about 5 per cent, with the exception of Turkey where the cost of living index has fluctuated only slightly since the middle of last year.

Outlook

Generally favorable crop prospects for 1951 and continued strong world demand for Near East export commodities, particularly industrial raw materials, may lead to some further improvement in the general level of incomes and to increases in internal demand. Increased purchasing power, however, is likely to strengthen inflationary pressure on consumer goods in short supply. In particular, higher costs of essential consumer goods may tend to reduce the real income of food producers. Despite anti-inflationary measures such as relaxation of controls over imports, it may be difficult in the coming months even to maintain the already low living standards of the rural masses in the Near East.

PART II

TARGETS AND PROGRAMS OF AGRICULTURAL DEVELOPMENT IN THE NEAR EAST INTRODUCTION - CURRENT STATUS OF AGRICULTURAL PLANNING IN THE NEAR EAST

Background

In the Near East the importance of planning for economic development, particularly planning of food and agricultural resources, became increasingly apparent during the latter part of the second World War. Special war-time conditions made it imperative that schemes be developed for maximizing local food production in order to ensure that the civilian population had at least the necessities of life.

The combined efforts of Near East governments and their Allied advisers produced substantial and lasting results. It is estimated that for the region as a whole the total cultivated area is now about ten per cent larger than before the war. While this increase reflects to some extent a long-term trend toward expansion of the area under cultivation, it has no doubt been expedited appreciably as a result of the programs for more intensive land utilization put into effect during the war and immediate postwar years.

The experiment proved to be extremely valuable in other ways as well. It provided governments with techniques of directing food and agricultural activity into channels best suited to meet local needs. Furthermore, since under the impetus of wartime conditions, countries in the Near East had to act almost as a single economic unit, important progress was made toward regional planning and cooperation in economic matters. Subsequent developments indicate that the experience thus gained both at the national and the regional level has not been lost.

There are indeed pressing reasons, political as well as economic why possibilities of greater economic development should receive continued consideration in the Near East. First, there is the central problem of the growing disequilibrium between population and natural resources. The total population of the Near East at the end of 1949 is estimated at 122 millions, as against 104 millions in 1936. Thus, while the area of cultivated land increased by 10 per cent, the net growth of population attained almost 17 per cent during the same period, and exceeded the rate of expansion in area cultivated by a considerable margin. It is clear that, if population continues to expand at the current rate of approximately one per cent per year, special measures to intensify utilization of available resources will have to be taken in order to avoid further deterioration in the already alarmingly low standard of living.

Second, in the political field, a movement is slowly gaining strength, particularly among the younger generation educated at foreign or local universities, which calls for greater government activity to be concentrated on the realization of social and economic reforms. Indications of spreading social unrest both in cities and rural areas also tend to emphasize the need for special government intervention.

Obstacles to planning

However, very serious obstacles impede the extension of government action in the field of planning and development of agricultural resources. One of these is the lack of essential tools for economic planning. The majority of the countries in the Near East did not attain political independence until fairly recently, and their technical and administrative services are hardly capable as yet of providing the highly diversified and specialized skills required in the organization and implementation of integrated development programs. It is expected that this obstacle may be eliminated eventually.

as more trained technicians and administrators become available. However, under present conditions, even such basic data as statistics of population, agricultural and industrial production are frequently lacking.

The second major obstacle is related to the socio-political structure prevalent in vast areas of the Near East. As a result of centuries of feudalism, extreme disparities have developed in the distribution of property and income between the masses of the population and the relatively small group of those in power. A growing sense of public responsibility will be required to overcome the vested interests of this group which constitutes in several countries the government and which often resists any changes that might weaken its position. The maintenance of inefficient systems of land tenure inimical to the introduction of more progressive agricultural practices and improvement in the general standard of living, is an important aspect of this problem.

Further, paucity of domestic capital resulting both from the low level of national income and from the inadequate incentives for mobilizing private savings, has been a traditional obstacle to expanding investment for economic development. However, the importance of this factor should not be overestimated. In the past decade, fundamental changes have taken place in the economic position of the region. As a result of heavy wartime expenditure on the part of the Allied forces the Near East had accumulated substantial sterling balances at the close of the second World War. Moreover, production of oil has expanded rapidly during the past few years and further increases in output are possible. The Near East has thus become a creditor region and revenue from the sale of oil, together with releases from unspent sterling balances, could, if wisely managed, be used to finance developmental programs.

Progress in planning in postwar years

In spite of these obstacles substantial progress has been made since the end of the war in establishing and implementing national development programs. Currently five such programs are in operation in Egypt, Iran, Pakistan, Turkey and Cyprus. In addition, a six-year plan for agricultural development is reported to be under active consideration in the Lebanon. A long-term program for agricultural expansion has been prepared in Afghanistan, but no information is available as to its official status or the extent of implementation. Most other governments in the region, although not yet prepared to present comprehensive development programs, are undertaking to establish national plans for agricultural improvement, or, at least, to define the more important lines of future development. Since the end of the war, preliminary surveys of economic and agricultural potentialities have been or are being carried out in Ethiopia, Iraq, Jordan, Syria, and Eritrea. Though far from complete, the information thus assembled forms an indispensable preliminary to any formulation of development programs for these countries (2).

In view of the many similarities which exist between Near East countries with respect to their present status of agricultural development and the problems involved in an expanded utilization of resources, it is not surprising that attempts are being made towards the organization of developmental activities on something wider than a national scale. The establishment in 1945 of the Economic and Financial Committee of the League of Arab States marks a first step in this direction. In the field of agriculture the Committee planned measures for exchange of information, standardization of statistical methods, and improvement of agricultural training. It devised several measures for the increase of peasant incomes and improving their standard of living. Considerable attention was given to the propagation of cooperative principles and to extending aid to cooperative societies.

Considerable interest also attaches to the action initiated at the International Islamic Economic Conference which held its second session in Tehran October 1950. The Conference decided to create an International Islamic Economic Association to act as a clearing house of planning and

policy-making between industrialists, engineers, and technicians in Islamic countries, particularly in the Near East. Two standing commissions are to be established, one for fact-finding and economic surveys, the other for economic planning. A scheme for a Near East central college of economics has also been proposed. A notable feature of this new Association is its status as a semi-official organization which, while having substantial government backing, selects its members primarily among private representatives of business and industry. Planning for economic development is thus placed on a broader basis and should attract increasing public support.

Scope of current national development programs

Existing national programs are, for the most part, comprehensive in their scope covering the principal sectors of the economy including industry, agriculture and transport, and comprising in addition a wide range of projects in the fields of education, health, rural welfare, etc. Programs extend over varying periods of time, from four years in the case of Turkey to twelve years in the case of Afghanistan. However, it is frequently emphasized that the target dates set for completion of the programs are tentative and subject to revision due to the uncertainty relating to prospective supply of funds, internal as well as external, availability of technicians and equipment, and other factors. Normally, programs show the main categories of the various projects and their estimated cost. With the notable exception of Turkey, programs do not include specific targets or goals of production, trade, and consumption.

Procedures of implementation

Legislative and administrative procedures for implementing programs and projects vary widely from one country to another. In most cases, the execution of the different categories of projects is entrusted to the appropriate ministries or technical departments, under the supervision of the council of ministers. In some countries central development boards have been or are being organized to secure proper coordination between development activities in the several sectors of the national economies. Such central development boards usually include, in addition to the ministers concerned, department officials with special technical qualifications and, in some instances, industrialists, businessmen, or other nongovernmental specialists. A development board along these lines was recently set up in Jordan with the special function of acting as liaison between the Jordan government and the United Nations Relief and Works Agency. In Iraq where an Agricultural Advisory Council was organized in early 1949, a Higher Economic Planning Board to prepare a constructive plan for development and to put it into force within a limited period, has been constituted. In Pakistan planning and coordinating the national and provincial government developmental projects is the responsibility of a development board within the Ministry of Economic Affairs.

A different procedure has been adopted in Iran where a central Plan Administration is charged with responsibility for coordinating and supervising the implementation, through the appropriate Ministries of the various phases of the Seven-year Plan. The Plan Administration is constituted as an independent government body in an attempt to ensure continuity of operation.

Conclusions and suggestions

In the light of the preceding analysis, the following suggestions are put forward as a possible means of securing further improvements in practices and procedures of programming for development.

1. Attention has been drawn above to the serious lack of essential tools for economic planning. Real progress in establishing sound planning practices will require, in many instances, considerable strengthening of administrative and technical services. While obviously limited by budgetary

considerations, governments appear to be increasingly aware of the basic need for training and employing additional qualified administrative and technical personnel including statisticians and economists. It is suggested that government efforts in this direction could be materially expedited by utilizing to the fullest extent possible fellowship and scholarship facilities currently provided by international agencies or under bilateral arrangements.

2. With some notable exceptions, few countries in the Near East have as yet formulated well integrated development programs even though these programs are often comprehensive in scope. While in most cases the general lines of national food and agricultural policies have been laid down, programs too frequently consist of individual projects unrelated to one another or to the general policy objectives. In particular, nutritional and agricultural objectives are often not sufficiently linked in national programs. It is suggested that for the purpose of coordinating programs and projects in the fields of production, trade, distribution, and consumption, each government which has not already done so, make arrangements for establishing an independent development board or similar body, competent to exercise such functions.

Moreover, it is believed that the formulation of economic policy objectives should be accompanied, wherever practicable, by a statement of quantitative targets or goals, consistent with these objectives, relating to production, trade, and consumption in the major sectors of the national economy, including, in particular, the food and agricultural sector.

3. It is suggested that governments undertake further steps to encourage public interest and cooperation in developmental activities. Programs designed to meet the needs of the people cannot be effective unless they afford opportunity for participation in planning as well as in implementation, by those whose lives are affected. An outstanding example of what can be achieved by initiating planning at the community level is found in Egypt where a program for setting up social welfare centers in rural areas is successfully being carried out with active support of the local population.

4. Reference has been made to the need for continuing and expanding regional and international cooperation, particularly with regard to the coordination of national economic and agricultural policies. The nature of such regional and international cooperation and the possibilities of action through the United Nations agencies are discussed in the final part of this Working Paper.

5. In drawing up development plans and programs, it is essential to avoid the mistake of setting the sights at too ambitious or too distant objectives. There are serious obstacles impeding the extension of government activity in economic planning and development such as shortage of qualified technicians and administrators, lack of investment capital and the nature of the socio-political systems of many countries in the Near East. Moreover, current world economic conditions are unsettled, especially following the outbreak of the Korean conflict, and future developments are uncertain. Therefore, apart from laying down the long-term policy objectives and defining ways and means whereby these can be implemented, development plans and programs should give careful consideration to the feasibility of proposed projects within given time limits, the supply outlook for equipment which may have to be imported and the alternatives to be adopted if import supplies should not be forthcoming or remain below expectation.

6. Since social changes are inevitable as a consequence of economic development, the national plans should be broad enough to guide society toward a set of social institutions and services which are compatible with the proposed new technologies.

CHAPTER 1 - PRODUCTION

A. Prospects for Near East Food and Agriculture Production in 1952/53

An attempt has been made in the following pages to analyze in quantitative terms the main characteristics of change anticipated in the volume of both total food and agriculture production and individual crops and livestock commodities in 1952/53. Such quantitative analysis meets with considerable difficulty owing, on the one hand, to the inadequacy of basic statistical data and, on the other, to the absence in many countries and territories of targets or goals relating to specific commodities and years. It should be noted that in 1949 only one country, Egypt, had supplied quantitative forward estimates in advance of the Near East Regional meeting in Beirut. However, as of the 13th December 1950, three countries, Egypt, Iran and Turkey, which together account for over 60 per cent of the aggregate food and agriculture production of the region, had submitted official targets for 1952/53, in response to the Director-General's letter G/E/8.

To supplement these data for countries for which no official targets or estimates were submitted, the information available to the FAO secretariat as to current government programs, policies and intentions has been drawn upon. Special attention was given to the following:

- (a) The expressed agricultural policies of governments and their food and agricultural programs in process of implementation.
- (b) The findings of the FAO Regional conferences held in Cairo and Beirut in 1948 and 1949, in particular the information supplied in the course of these meetings with regard to short and long-term potentialities of agricultural development.
- (c) The Annual Reports received from member governments.
- (d) The documentation assembled by the FAO secretariat through direct consultations with Near East governments concerning development plans and programs.

Production targets and estimates

Changes in volume of food and agriculture production by 1952/53 are summarized in table 1 which shows for crops and livestock products indicators based on average production levels of prewar years. Total food output (including food crops and livestock products, but excluding industrial crops like cotton and tobacco) is shown in table 2, both in terms of total volume and per head of population. The tables comprise, in addition to indicators for the Near East as a whole, data for selected countries within the region listed in accordance with their relative importance in the total food and agriculture output in the region. ^{2/}

It is important to emphasize at this point that since food and agriculture statistics for prewar are incomplete, comparison of current and prospective levels of production with those of prewar years is indicative of the approximate rate of change only. In order to increase comparability of prewar (five year average 1934 through 1938) and postwar data, levels of current production are based on the four year average of 1946 through 1949. This procedure has the advantage of eliminating, to some extent, the impact of unfavorable weather conditions - severe winters,

^{2/} Calculated on the basis of uniform price weights.

Table 2 - The Estimated Level of Production of Principal Food and Agricultural Commodities in 1952/53

Indicators based on Prewar Average 1/

Country	1946-49		1952/53	
	Crops	Livestock Products	Crops	Livestock Products
Turkey	113	108	162	120
Egypt	96	118	118	132
Iran	96	92	126	100
Iraq	98	...	147	...
Syria	119	...	193	...
Total Near East	106	111	139	125

1/ Indicators for crops are for gross production of foodcrops: grains (including millets and sorghums, and rice), potatoes, pulses, sugar and oilseeds, and industrial crops: cotton and tobacco; those for livestock products relate to meat and milk. Data for prewar refer in most cases to the average output of crops and livestock products in the five years 1934 through 1938; those for postwar, to the average output in the four years 1946 through 1949. Under the heading 1952/53 indicators for crops relate to crops to be harvested in 1952, those for livestock products, to output during the period July 1952 - June 1953.

Table 3 - Trends in Population and Production of Food Total and per Head of Population

Indicators based on Prewar Average 1/

Country	1946-49			1952/53		
	P	F	F/P	P	F	F/P
Turkey	117	107	92	122	142	117
Egypt	123	109	89	133	121	90
Iran	111	97	87	124	115	93
Iraq	130	108	84	137	145	106
Syria	118	111	94	122	156	128
Total Near East	115	110	97	120	133	111

P - Population

F - Production of food

F/P - Production of food per head of population

1/ Indicators for production of food have been calculated by combining food crops and livestock products included in table 2, without allowance for quantities fed to livestock. Indicators for population refer to: end 1936 estimates for the prewar period; mid 1948 estimates for the postwar period; projections for end 1952 for 1952/53. As far as possible, estimates for prewar and current years are based on official data.

insufficient or maldistributed rainfall - as a result of which output of crops and livestock products in individual countries and the region as a whole has shown wide fluctuations during the past few years, particularly in 1947 and 1949. ^{3/} On the other hand, it tends to over-emphasize the magnitude of the changes that have to be realized over the next two years if targets and estimates are to be achieved. For this reason, a second approach has been adopted in the final paragraphs of this section whereby targets and estimates are reviewed in the light of the levels of production attained in 1949 and 1950.

The main conclusions to be drawn from an analysis of tables 2 and 3 are as follows:

1. A continued expansion, both in output of crops and livestock products, over average prewar and postwar levels, is programmed for the next two years. If targets were realized, production of food and industrial crops should exceed, for the Near East as a whole, the prewar average by about two-fifths, that of livestock products by one-fourth.
 2. The rates of change in output of crops and livestock products envisaged for the region as a whole, conceal marked variations among individual countries. In Egypt, Iran and Iraq, where aggregate production of all crops in the postwar period was somewhat below the prewar level, the programmed expansion over prewar output varies from about 20 per cent in Egypt to almost 50 per cent in Iraq; in the former, due partly to continued emphasis on production of cotton, in the latter, mainly as a result of expanding production of grains. In Syria and Turkey where, in spite of unfavorable weather conditions in 1947 and 1949, the average postwar level of crop production exceeded that of prewar years by a considerable margin, it is hoped to bring about further substantial increases in crop output by 1952/53. In both countries the programmed increase is expected from grains and, particularly in Syria, from cotton.
 3. For livestock products a fairly uniform rate of expansion over the next few years is expected. For Egypt and Turkey, where an average level of livestock production in the postwar period shows a marked increase over prewar, official targets suggest a further expansion of about 10 per cent over current levels. In Iran, where output of livestock products in postwar years show some decline relative to the prewar average, owing to heavy livestock losses as a result of severe winters and poor pasture conditions, it is hoped to restore the prewar production level in 1952/53.
 4. By 1952/53 the region's production of food, which currently is about one-tenth higher than in prewar years, may, if present targets and programs are realized, show a further improvement by about one-fifth over the average postwar level. The importance of this change is illustrated by a comparison with current and prospective rates of population increase. Although the reliability of such comparison suffers from the tendency of postwar censuses and enumerations to overestimate, in some cases, the increase in population, the main trends can easily be discerned:
 - (a) For the Near East as a whole, average postwar food production, measured in terms of production per head of total population, shows a slight decrease relative to the prewar level. ^{4/}
- ^{3/} Data for single years are included in the Statistical Appendix.
- ^{4/} In Pakistan, the increase in food production in the postwar period has been greater than the rate of population growth, and postwar production per head of total population is currently higher than before the war.

Marked discrepancies between relative rates of expansion in population and food output are found in countries like Egypt, Iran and Iraq where higher-than-average rates of population increase prevail, or where, as in the latter two countries, in Turkey, and to some extent in Syria, the average level of food production has been affected by adverse weather conditions.

- (b) If present plans and programs are successful, the trend would be reversed in the next few years and the programmed expansion in the region's food production would catch up with and, in certain countries, exceed the expected increase in population. In Iraq, Syria and Turkey the greater volume of food supply is likely to be reflected in a rise in export availabilities and, to some extent, an improvement in domestic consumption levels, as discussed in a subsequent chapter. In contrast, in Egypt and Iran, output of food per head of population is expected to remain below prewar, even though in both countries the rate of expansion in food production scheduled for the next two years is more nearly in line with the prospective rate of population growth. Unless special measures are taken (see sections on grains and cotton below), Egypt is likely to become increasingly dependent on imports of foodstuffs, while Iran may attempt to combine a moderate improvement in current consumption levels with a resumption of small-scale exports of grains traditional in prewar years. In the case of Pakistan, where current production per head of total population already exceeds prewar levels, continued expansion will depend on export prospects for Pakistan's surplus grain.

To supplement the above analysis of major production trends, it is desirable to include at this point some detailed comments on individual crops and livestock products.

Principal crops

Table 4 shows for the principal crops, area and production in 1952/53 expressed as a percentage of the prewar average.

Table 4 - Area and Production of Major Crops in 1952/53
Expressed in Relation to Prewar Average 1/

Commodity	1934/38 = 100			
	1946/49		1952/53	
	A	P	A	P
Total Grains	121	103	134	137
Wheat	110	102	137	142
Rye	122	117	157	148
Barley	123	103	136	134
Oats	121	110	110	111
Maize	121	96	125	110
Millet and Sorghum	124	127	129	140
Rice	130	140	138	149
Potatoes	134	240	173	353
Pulses	114	108	116	119
Sugar	169	159	227	209
Citrus fruits	...	103	...	98
Total Oilseeds and Oils				
(Oil equivalent)	...	104	...	136
Olive Oil	...	120	...	150
Cottonseed and Oil	...	82	...	122
Other veg. Oil seeds and Oils	...	117	...	142
Cotton (ginned)	80	87	119	132
Tobacco	155	145	136	151

A - Area
P - Production

1/ For actual figures for prewar, current years and 1952/53, see Statistical Appendix.

Data indicate for the Near East as a whole a substantial expansion, relative to the average prewar and postwar level, in both area and production of all major food and industrial crops (except for citrus fruits, output of which was seriously disrupted as a result of the Palestine conflict). Compared with the postwar period, indices for 1952/53 show a proportionally higher rate of expansion for production than for area, suggesting improvement in yields, particularly for cereals (wheat and barley) and tobacco. This upward trend in yields which may prevail in the next few years, is a striking contrast to the decline in productivity experienced in most of the Near East during the late war and immediate postwar period due to several factors, such as shortage of fertilizer, changes in the system of crop rotations and the extension of cultivation to marginal lands. Current programs and measures for raising yields are discussed in a subsequent section.

Relative to prewar, the programmed increases in production show marked variations among individual crops ranging from one-fifth for pulses, one-third for cereals, vegetable oilseeds and cotton, one-half for tobacco, to double for sugar and even higher for potatoes. However, total production of the latter two crops was comparatively small in prewar years.

Grains

Considerable emphasis is placed in the majority of country programs on the expansion of output of grains for the purpose of increasing supplies for domestic consumption, expanding exports or both. As noted previously, the region's production of all grains (including rice) is programmed to increase in 1952/53 by about one-third over the prewar average. Programs tend to concentrate, in particular, on wheat and barley, output of which may increase by about two-fifths and one-third respectively over the prewar average. Lower rates of increase are envisaged for maize, millets, sorghums and rice.

Regarding wheat and barley, it appears that, while nearly all countries in the Near East are planning some increase in area and production of these crops, most of the expansion programmed for 1952/53 would originate in Iran and Turkey, which together account for well over half the region's production in current years. The trend toward expanding grain production is also marked in Iraq and Syria. In Pakistan no appreciable expansion in wheat production has been programmed. Not much information is available as to grain prospects in Ethiopia, although it is believed that production may somewhat remain below the relatively high levels attained in the early postwar years. Egypt is a special case; since the end of the second world war, the area devoted to grains has continued to decline owing to the considerable expansion of cotton cultivation. Official targets for 1952/53 do not indicate that the trend will be reversed in the near future, the area under grains being programmed at some 10 per cent below the postwar average. However, the contraction in area is offset by an expected improvement in yields per hectare as a result of which total production would be slightly above the postwar average. Anxiety about the undesirable effects which a continued reduction of the area under grains may have on the internal food situation, has induced the Egyptian government to introduce measures to ensure a minimum area planted to wheat and barley in 1951 and 1952.

Potatoes

Before the war, potatoes played a minor part in most average diets, and production was confined to a few countries. Under the impetus of war conditions, however, output expanded and at present averages about two and a half times the prewar level. Further increases are scheduled in Egypt

and Turkey, which account for most of the region's production. In the Lebanon and Cyprus, which are well suited to potato-growing and normally export part of their production, the trend toward expansion appears checked, at least for the time being, by a growing concern about the possibility of unmarketable surpluses. In other areas extension of cultivation is limited by climatic conditions.

Of the root and tuber group, sweet potatoes and yams are important anti-famine crops in countries like Ethiopia and the Sudan. Little information, however, is available regarding trends in area and production.

Pulses

Data on current and prospective trends in area and production of pulses ^{2/} are rather unsatisfactory owing to incomplete statistical coverage in many areas. Targets and projections for 1952/53 indicate an apparent increase in production of about 10 per cent over current levels, largely due to improving yields. Data are believed, however, to overstate the order of change to be expected in the near future.

In Egypt and Ethiopia, the two most important producers in the region, no significant change from current levels is anticipated. In Pakistan also present production levels, which are about twice those of prewar, are expected to be maintained, and no increase has been programmed. A relatively high increase is planned in Turkey, the largest exporter of pulses in the Near East. According to official targets, some reduction both in area and output is expected in Iran.

For the Near East as a whole, current prospects for increasing area and production appear unfavorable since emphasis on cereals and cotton will tend to restrict the possible scope of expansion of pulses. In view of the importance of this crop in the Near East rotation pattern as a nitrogen fixer and, in addition, as a source of cheap protein supplementing, to some extent, the inadequate intake of animal protein, it may be advisable for some countries to re-examine their objectives for pulse production.

Sugar

Increasing consumer demand for this commodity is reflected in the expansion of sugar cultivation since the end of the war. Total Near East production in postwar years reached a level almost 60 per cent above the prewar average, and official targets indicate further increases in both area and production which by 1952/53 might attain a total of 470,000 tons, or more than double the quantity produced in the prewar period.

Egypt, the only large-scale cane producing country in the Near East, which currently accounts for over half the region's sugar output, plans to increase production by improving yields per hectare through the introduction of new cane varieties. In Turkey, the region's largest producer of beet sugar, production in 1952/53 is expected to remain at the 1949 level, which is over twice as high as that of prewar. Iran intends to raise production in 1952/53 to four times the prewar average, or more than twice the current output. In Syria the cultivation of sugar beet is of recent introduction. Production of sugar amounted to some 7,000 tons in 1950. The outlook for further expansion is uncertain.

^{2/} Includes all types of edible pulses: dry peas and beans, broad beans, chickpeas and lentils.

Citrus and other fruits

For the region as a whole, production of citrus fruits ^{6/} in 1952/53 is expected to remain some 5 per cent below the prewar level, mainly as a result of the disruption in output caused by the Palestine conflict.

Targets for Egypt suggest some reduction from prewar and current levels, although the decline may be statistical only due to incomparability of data for earlier years. In other producing areas future trends are not easily determined. Owing mostly, it would seem, to uncertainties in the international marketing outlook, exporting countries such as the Lebanon and Cyprus, where local surpluses have occasionally emerged in recent years, generally tend to stabilize production at approximately the present level and, rather than expand availabilities for export, to concentrate on improving quality standards of current exportable supplies.

Only limited information is available regarding production trends for fresh fruits (other than citrus), dried fruits and grapes. Some expansion seems to be likely in the production of raisins in Iran and Turkey and of dates in Iran and Iraq. In Jordan and Saudi Arabia, some increases in the area under fruit are expected, considerable quantities of seedlings being made available to farmers by Government nurseries and model farms.

Cotton

Targets and projections for 1952/53 suggest spectacular increases in both area and production over postwar and prewar levels. Total Near East output might expand by more than half over average production 1946-49, or by about one-third over prewar. The programmed expansion, relative to the current level, is to result from an increase in area by some 45 per cent and an improvement in yields by about 10 per cent.

An analysis of the wide fluctuations in area and production of cotton during the past ten years illustrates the flexible nature of the crop which can be easily replaced by others, whenever adjustments appear desirable. When it became necessary during the war and immediate postwar years to increase food crops at the expense of cotton, area and production declined sharply throughout the region. In 1946 and 1947 the total area under cotton in the Near East attained only two-thirds of the prewar average, with production reduced correspondingly. From 1948 onwards, as food supplies became more plentiful in most parts of the world, cotton cultivation in the region was again expanding rapidly and recovered to prewar levels in 1949. Preliminary data for 1950 indicate that for the Near East as a whole output exceeds that of the preceding year by about one-fifth, and in some countries may reach, or even exceed, the targets set for 1952/53. The upward trend which, if current government programs are carried through, might well extend beyond 1952/53, is due to two main factors. On the one hand, expansion in world demand for cotton following the Korean outbreak is likely to maintain production of traditional exporters like Egypt and the Sudan at high levels. In addition, countries like Iran, Iraq, Syria and Turkey, where until recently exports of cotton were limited in volume, intend to expand export availabilities substantially. On the other hand, due to rapid population growth throughout the Near East, domestic demand for cotton goods is steadily increasing. In recent years, as part of industrialization programs, a number of countries have either established new spinning and weaving factories or enlarged the capacity of existing plants. The industry's requirements of raw cotton and the profitable prices currently paid to producers at the local markets are likely to provide a strong incentive to further expansion in output of cotton.

Tobacco

Indications are that, due to adverse market conditions, tobacco output by 1952/53 may show only a slight increase over the current level. For the region as a whole, production would be some 4 per cent higher, the programmed increase in yields being mostly offset by a considerable contraction in area. The trend is especially clear in Turkey, the largest single producer in the Near East, where the area is expected to decline by 20 per cent from the 1949 level, with production remaining virtually the same.

^{6/} Includes oranges, tangerines, grapefruit, lemons and limes.

Vegetable Oilseeds and Oils

Unfortunately data do not permit a detailed analysis of current and prospective trends in production of vegetable oilseeds and oils. Reasonably complete estimates are available for output of cottonseed, although a number of countries only report output of cotton, raw or ginned, from which data for cottonseed must be derived. Less complete information is available for olives and olive oil, while for other oilseeds, such as sesame, groundnuts, linseed, sunflower, poppy, etc., data should, with few exceptions, be considered as rough approximations only. Figures presented in this report are, consequently, subject to a wide margin of error and, in particular, may underestimate actual production levels of certain types of seeds.

For purposes of comparability, the data shown in table 3 are based on the oil equivalent of reported or estimated production of seeds. It should be noted that throughout the Near East only part of the oilseeds produced are processed into oil, and that large quantities are used for direct consumption or in the preparation of food.

Tentative calculations for 1952/53 indicate that aggregate production of oilseeds in the Near East might increase by some 30 per cent over the postwar level, which probably did not exceed appreciably the prewar average. The increase should result principally from the programmed expansion in cotton. The projected increase in production of olives and olive oil, estimated at about one-fourth over the average postwar level, may not be realized owing to the severity of the 1949/50 winter which seriously damaged exceptionally large numbers of olive trees in a number of Near East countries, particularly Syria, the Lebanon and Jordan. In Syria, for instance, the 1950 olive crop amounted to only one-third; in the Lebanon to one-seventh, of that of 1949. As an illustration of the type of projects currently under consideration for expanding the area under olives, reference is made to the Burma Scheme in Jordan which provides for planting up to 2,000 hectares in the Burma reserves near Jerash by transplanting 200,000 wild olives from the locality and subsequently budding them.

Indications are that other oilseeds, including sesame, groundnuts, linseed and sunflower, may show substantial increases over the next few years in certain areas of the Near East. In Ethiopia, where conditions of soil and climate are well suited to various types of oilseeds, expansion for the purpose of increasing exports is under active consideration. In Turkey official targets provide for expansion in linseed and sesame (5).

To obtain a more complete picture of the prospective fats and oils position of the Near East, it would obviously be necessary to attempt some appraisal of the outlook for production of animal fats which are tentatively estimated to represent about one-third of the region's aggregate output of fats and oils. No official targets are available, but it is assumed that future trends in production will approximately reflect the changes in output of other livestock products discussed below.

Livestock products

Due to fragmentary data it is difficult to discuss the general trend with regard to prospective output of livestock products, particularly meat and milk, with any certainty. On the basis of prewar and current livestock numbers and partial production data available for individual countries, it would appear that for the Near East as a whole, average production of meat in postwar years is some 5 per cent, that of milk some 15 per cent, in excess of the prewar average. Official targets for Turkey show a 25 per cent increase in production of meat by 1952/53 compared with current output, while no change in production of milk seems to be envisaged. Likewise, in Iran output of meat is expected to increase at a more rapid rate than that of milk. An opposite trend emerges in Egypt: targets indicate a 20 per cent increase in output of milk, but no significant expansion in production of meat. As far as can be determined from the information available, livestock improvement programs in other parts of the region tend to emphasize, as in Egypt, output of milk rather than meat.

As previously noted, certain of the changes implied in targets and estimates for 1952/53 seem high when compared to the average volume of output prevailing the 1946-49 period. It may be desirable, therefore, to review these targets and estimates also in the light of recent trends in production of some major crops. Table 5 summarizes, for five countries and the Near East as a whole, the 1949 and provisional 1950 production data, expressed as a percentage of 1952/53.

Table 5 - Production of Major Crops in 1949 and 1950 Expressed in Relation to Targets and Estimates for 1952

Commodity	Turkey		Egypt		Iran		Iraq		Syria		Near Total East	
	1949	1950	1949	1950	1949	1950	1949	1950	1949	1950	1949	1950
	(.....1952 = 100.....)											
Total Grains ^{1/}	52	81	83	93	84	82	76	86	66	102	74	84
Wheat	43	65	93	81	83	82	77	92	60	99	66	78
Barley	57	93	102	67	85	80	80	90	81	112	76	92
Maize	91	78	88	92	70	70	60	60	75	98	87	86
Rice	90	64	105	112	87	87	66	66	80	80	94	96
Potatoes	74	110	72	57	78	78	50	50	75	150	74	90
Pulses	79	94	101	69	107	..	100	100	99	111	97	91
Sugar	100	71	68	72	46	69	-	-	-	-	73	69
Citrus fruits	93	120	101	99	67	75	-	-	83	33	89	85
Oilseeds & Oils	84	...	82	..	55	...	73	...	86	...	87	92
Cotton	97	146	81	78	60	69	20	80	49	114	80	93
Tobacco	101	94	-	-	94	94	75	75	80	-	94	91

^{1/} Including rye and oats, excluding millets and sorghums

It emerges from this table that for the region as a whole the upward trend in crop output, particularly grains, potatoes, oilseeds and cotton, has been continued over the past two years. Exceptions are pulses, sugar, citrus fruits and tobacco, the output of which remained somewhat below the levels attained in 1949. Considered from the point of view of the targets for 1952/53, crop production is generally moving toward these targets at a fairly rapid rate, approaching and exceeding in certain countries, and for certain commodities, the level programmed for 1952/53.

For commodities such as grains, the outlook appears somewhat uncertain. The total volume of grain production in the Near East is largely determined by two countries: Turkey and Iran. In neither case has the level of output during the past two years reflected the grain-growing potential of these countries. Turkey, particularly, suffered a serious crop failure in 1949, and again in 1950 the expected bumper crop of wheat did not materialize. Nevertheless, as a result of past and current programs for opening up new lands, the distribution of State domains to cultivators and the expansion of the use of mechanical equipment, production of grains in Turkey is capable of very substantial increases in the next two years and could even, given favorable weather conditions, reach the targets set for 1952/53. Measures along lines similar to those in Turkey are carried through in Iran, but being of relatively recent introduction, their effect on the expected level of production in 1952/53 may still be rather limited.

In conclusion, it would appear that targets and estimates are generally indicative of the direction of change that may be expected to take place in the prospective levels of agricultural production of the Near East as a whole. Undoubtedly there will be a number of cases in which the anticipated rate of expansion may prove too high or where changes in market conditions may lead to adjustments in the programmed production pattern. It is hoped that governments attending the meeting will be prepared to revise and bring up to date the targets and estimates shown in this report in the light of such considerations.

B. - Measures for Expanding Production Through Increased Utilization of Land and Water Resources

In the Near East the area of cultivated land is small in relation to its territorial size. Recent estimates indicate that of a total of almost 1.1 billion hectares, only some 61 million hectares or 6 per cent is under cultivation, and of this a large part is left fallow each year. Pastures, and forests and woodlands account for about 12 per cent each, the balance of 70 per cent consisting largely of dry lands and deserts. 1/

Extension of the area under cultivation is seriously limited by conditions of soil and climate. Of these limitations, the most fundamental and difficult to overcome is the lack of water. With the exception of certain areas on the peripheries of the Near East where water supplies are abundant: parts of Turkey, particularly the eastern Black Sea board, the Caspian littoral, the uplands of southwestern Arabia and Ethiopia, average annual precipitation is low and erratic in distribution, with summer aridity almost absolute south of a line from the Elburz mountains to Crete. Agriculture is concentrated in oases clustered around wells and springs or spread out along rivers and wadis. Some of these oases are large like the Nile valley and the central and lower Euphrates and Tigris basin, but most of them are small and poor. The scarcity of water is reflected in the low proportion of land regularly under irrigation which, according to available information, amounts for the Near East as a whole to only 12 per cent of the cultivated lands, or less than 1 per cent of the total territorial area.

Data showing the relation of cultivated to total, and of irrigated to cultivated area in individual countries are summarized in table 6. In addition, the table includes for a number of countries tentative estimates of the area at present unused, but potentially productive through extension of cultivation, both irrigated and rain-fed, or afforestation. While based, in most cases, on official data, it should be emphasized that these estimates are calculated on assumptions differing from country to country and that, consequently, their comparability is limited. For instance, the figure of 700,000 hectares shown for Egypt, should, according to recent official reports, be interpreted as a conservative estimate of the potential expansion in cultivated area to be achieved over the next few decades. In contrast, data for countries like Ethiopia, Iran and, to some extent, Iraq, refer to the maximum possible development of land resources which, for varying reasons, is unlikely to be attained within the foreseeable future. Subject to these reservations, the total unused but potentially productive area in the Near East may be evaluated at about 120 million hectares, or double the area currently under cultivation.

With this distant objective in view many governments are engaged in programs for extending cultivation beyond present limits. In some cases, such programs are aimed at increasing the area under crops in regions where cultivation is possible under rain-fed conditions, often by use of mechanized farming methods. More frequently, programs are directed toward expanding cultivation on arid and semi-arid lands through the discovery and utilization of gravity and underground water supplies. Of equal importance, in certain Near East countries, is the reclamation of presently or formerly waterlogged and/or salty lands by providing drainage facilities and adequate water for leaching and irrigation, and the removal of surplus waters from farms, swamps and overflow lands by construction of dams and floodwater storage.

Complementary to these programs are schemes for the settlement of farmers in newly developed areas which previously had been uninhabited or sparsely populated. Several countries have also afforestation projects. It has to be borne in mind that forest programs have to be closely related to agricultural ones. The planting of hedges along irrigation and drainage canals, among cultivated fields and improved pastures, can be useful for production of fuel, timber and forage and may be indispensable when shelter-belts have to be provided for protection against wind erosion. Afforestation and protection of existing forests on watersheds are indispensable also for regulating the flow of the waters needed for irrigation purposes, and avoiding floods and silt deposits in reservoirs.

2/ A large part of the area classified "forests and woodlands" consists of light stands of small trees almost useless for wood production. Actually, only 4-5% of the total area of the Near East, mostly along its outer limits is under productive forest.

Table 6.: Total Area, Cultivated, Irrigated and Potentially Productive Land ^{1/}
(1,000 hectares)

Country	Total Area	Cultivated Land	Cultivated as % of Total Area	Irrigated Land	Irrigated as % of Cultivated Area	Unused but potentially Productive Land	Potentially Productive as % of Cultivated
Aden	21	-	-	-	-	-	-
Aden Protectorate	27,194	110 2/	-	...	...	...	...
Afghanistan	60,000	6,400	11	...	...	...	...
A.E. Sudan	250,583	1,700	1	716	42	600	35
Bahrain	60	*3	5	...	...	...	...
Br. Somaliland	17,611	52 2/	-	...	...	...	...
Cyprus	925	434	47	59	14	...	...
Egypt	100,000	2,445	2.5	2,445	100	700	29
Eritrea	12,432	248	2	20	8	170	69
Ethiopia	106,000	11,000	10	...	...	64,000	582
Fr. Somaliland	2,200	2 2/	-	-	-	2	100
Iran	164,800	16,760	10	1,600	10	33,000	197
Iraq	43,532	2,650	6	1,750	66	9,350	353
Jordan	9,111	480	5	25	5	...	...
Kuwait	2,072	...	...	...	...	...	...
Lebanon	1,017	239	24	30	13	180	75
Muscat and Oman	21,240	...	...	...	...	...	...
Palestine ^{3/}	2,709	697	26	40	6	...	...
Qatar	2,200	...	...	...	...	...	...
Saudi Arabia	154,600	*20	...	...	...	...	...
Syria	17,110	2,500	15	333	13	3,400	136
Turkey	77,698	14,774	19	80	-	7,000	47
Yemen	19,500	...	...	...	...	...	...
Total Near East:	993,000	61,000	6	7,100	12	119,000	195

^{1/} Data refer to latest postwar year available. Cultivated land related to arable land including orchards, and fallow.

^{2/} Area planted to main crops only.

^{3/} Prior to partition.

In order to give an idea of the variety and scope of the many projects now under way throughout the Near East, the main types are summarized below in brief country notes. For further details regarding a number of countries reference is made to the Report of the United Nations Economic Survey Mission for the Middle East (New York, December 1949, in 2 volumes).

Cyprus - In recent years considerable progress has been made towards the extension of area under irrigation which because of the continued demand for increased agricultural production and owing to the large amount of cultivable land for which no irrigation is as yet available, is of the greatest importance to the island. Since the beginning of the Ten-year Development Program in 1946 new schemes are estimated to have caused an increase of over 12 per cent in the irrigated area which accounted for about one-seventh of the total cultivated area at the end of 1949. Future projects include gravity schemes for perennial flow, schemes for seasonal flow including reservoir storage, and pump irrigation from boreholes and wells(6).

Egypt - Egypt's agricultural land is the Nile valley. The present cultivated area amounts to some 2.5 million hectares, or less than 3 per cent of the total area of the Kingdom. The greater part of the land being under perennial irrigation, it is possible to produce, under an intensive farming system, an average of one crop and a half per year. Thus, the annual cropped area amounts to 3.8 million hectares.

In spite of this high productivity of the land the agricultural area is considered to be too small to support the country's large population which continues to grow at a rapid rate. Agriculture in Egypt being entirely dependent on artificial irrigation, the expansion of the arable area requires primarily the increase of water supplies. A comprehensive program has been developed for the entire Nile basin, including the construction of dams, regulators, storage reservoirs and drainage for overflow lands on the Equatorial and Main Nile. The program is scheduled for implementation over a period of 25 years and involves agreements with adjoining countries concerned with the headwaters of the Nile. Storage works on Lake Victoria to which EE 4.5 million is contributed by the Egyptian government, have already begun. Complementary irrigation projects in Egypt proper are in preparation.

It is officially estimated that as a result of these programs, it will be possible to raise the cultivated area in Egypt to at least 3.2 million hectares, an increase of some 700,000 hectares over the present area. It is pointed out that further expansion may be possible, according to unofficial estimates to as much as 4 million hectares. These estimates are based on the assumption that adequate supplies of low cost power would be available to raise the height of irrigation by lift beyond the level considered as a maximum under present economic and engineering conditions. Until the problems involved have been further investigated, it appears advisable to accept the official figure of 3.2 million hectares as a more realistic estimate of the potential expansion that may be attained in a not too distant future.

Pending completion of the major Nile projects upstream the Government is continuously exploring ways and means of utilizing available water resources to the fullest extent possible. Recent developments as reported to FAO are summarized below. The Edfina Barrage controlling the flow of the Rosetta branch of the Delta was reported completed in 1950. The quantity of water lost in the Mediterranean before the erection of this barrage is estimated at one billion cubic meters per year.

In conjunction with irrigation projects drainage schemes are being carried out to prevent the accumulation of salts following frequent irrigation. Substantial progress has been made in this direction in the past few years. Additional main collector drains and pumping stations have been constructed and legislation was passed in 1949 authorizing the installation of tile field drains to connect private farm lands with the public drainage system.

The utilization of underground water for agricultural purposes represents another important aspect of current irrigation programs. Installation of pumps in some of the basin areas in Upper Egypt has made it possible to grow more than one crop per year without conversion of the basins into perennially irrigated areas. In the desert oases a scheme is under way to bring about a fourfold increase of the present cultivated area estimated at 40,000 hectares, by construction of wells and reparation of the existing ones. Similar projects are under construction in the Mediterranean coastal strip bordering on the Western Desert.

In the Sinai peninsula work has begun on a barrage to divert and collect part of the seasonal runoff for cultivation purposes. Future plans include construction of other barrages and reservoirs.

Ethiopia - There is considerable scope for expanding the area under cultivation in this country. At present about one-tenth of the total land area is tentatively estimated to be under crops and a sixfold increase of the cultivated area has been suggested as a possibility. Current projects are on a limited scale and involve mostly improvement of existing irrigation systems. It is reported that general plans have been prepared for utilization of the waters of the Awash river and to provide wells for the exploitation of underground waters in semi-arid zones.

Iran - In this country the problem of expanding the agricultural area is not one of insufficient arable land. The total area which presumably could be brought into cultivation is estimated at about 50 million hectares if, to the extent needed, water and machinery were made available. Currently, only about 17 million hectares are under cultivation of which not more than one-fourth is cropped in any one year. Up to the present, Iran has relied mainly on rainfed crops and irrigation has been piecemeal and on a limited scale. It is estimated that about 10 percent of the total cultivated area is normally under irrigation, chiefly by the use of kanats. The Iranian Seven-year Plan is directed, on the one hand, toward increasing the area farmed per head of the agricultural population, particularly in the areas under rain cultivation, through introduction of machinery and improved cultural methods. On the other hand, the Plan calls for an intensive development of the country's water resources for irrigation purposes. Proposed projects relate to development of surface waters as well as to increased utilization of underground water supplies. Of the former the Karaj, Jajirud and Zayandeh Rud schemes are earmarked for early implementation. The Karaj and Jajirud flow from the Elburz mountains north of Tehran and are of interest for multipurpose development including supply of power and improved irrigation of the agricultural land near the capital, in particular the fertile Veramin plain. The Zayandeh Rud project located in the area west of Isfahan involves construction of a tunnel now in progress, to increase the inadequate supplies of the Zayandeh Rud itself and includes the erection of reservoirs for irrigation and generation of power. Completion of this scheme would substantially increase food and agriculture production in the Isfahan plain.

Large scale multipurpose projects include development of the Karun, Kur and Sefid Rud systems but have not yet progressed beyond the investigatory stage.

As regards the development of underground water main emphasis is placed on the construction of wells. Up to the present less than one hundred wells have been put into production, but it is intended to double or triple this number in the near future.

No appraisal has been made as yet of the potential increase in area and production of crops that would result from the implementation of the above plans, nor is it possible to estimate the time required for execution of the different projects. This will have to await completion of more detailed investigations recently initiated by the Iranian Government. Generally speaking, enlarged

utilization of water resources in Iran will permit diversification of crop production through the introduction of better rotation practices, and expansion of mixed farming. As noted above, Iran's economy, so far, has been mainly tied to winter crops, especially grains, which are often the least profitable from the point of view of both cash returns and maintenance of soil fertility. 8/

Iraq - Iraq also has great reserves of unused land and water resources. The total cultivable area is officially estimated at 12 million hectares comprising 4 million hectares in the northern or rainfed zone, and 8 million hectares in the central and southern or irrigated zone. At present the total area actually under cultivation amounts to only 20 percent of the potential, with a high proportion of the land lying fallow each year.

Agricultural development schemes relate to both the rainfed and the irrigated zone. In the former, a project is reportedly under consideration for the settlement of an area of 250,000 hectares by the establishment of a system of dry-farming on the best lands, and the utilization of the remainder for improved pastures and hay-making coupled with the provision of water from deep wells and with adequate measures of soil conservation, with the ultimate objective of realizing a balanced mixed farming economy. Distribution of the newly developed land would be directed toward encouraging small holdings within larger settlement groups, and major attention would be given to the organization of production and marketing cooperatives. It is estimated that the scheme would be self-supporting in 15 years. Another project concerns the development of 500,000 hectares over a period of 10 years, under a system of mechanized farming. Both projects involve marginal areas where total annual rainfall averages from 10 to 14 inches which exposes crop production to severe hazards in years of subnormal precipitation. Further studies of soil and climate conditions are in progress.

Extension of cultivation in the central and southern zone depends essentially on improved control, storage and canalization of the waters of Euphrates and Tigris. Among the various projects, two major schemes should be mentioned, the Habbaniyah scheme and the Wadi Tharthar project.

The Habbaniyah scheme is designed to control the often destructive Euphrates floods and to store water for the irrigation of an area estimated to exceed one million acres. According to available information, the outlet channel connecting Habbaniyah Lake with the Euphrates is practically completed, the inlet channel scheduled for completion in 1951. It is believed that completion of these channels will eliminate the danger of floods and, at the same time, permit the irrigation of additional land. A second phase of the Habbaniyah project provides for the construction of a barrage on the Euphrates, to increase the water storage capacity of the Lake. Work on the barrage has not yet begun.

The International Bank for Reconstruction and Development has recently granted a loan of 12.8 million dollars for the execution of the Wadi Tharthar project, the purpose of which is to draw off the surplus waters of the Tigris into the vast depression of the Tharthar valley north of Baghdad. Since Tigris floods generally occur shortly before or during the period when winter crops are harvested, it will be possible, as a result of this scheme, to minimize or completely prevent the frequently heavy crop losses, and, furthermore, to bring into production additional areas normally subject to flooding and, for that reason, left uncultivated. Work on the project will begin in 1951 and is scheduled for completion in 1956. It is planned, at a later stage, to use the stored waters for irrigation purposes through the construction of an appropriate system of channels and drains.

8/ For more detail, see the Report on Seven-year Development Plan for the Plan Organization of the Imperial Government of Iran, (New York, 1949 in 5 volumes), on which most of the above information is based.

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According to authoritative estimates full control, storage and utilization of the combined surplus waters of Tigris and Euphrates would permit doubling the area at present irrigated from these rivers.

Simultaneously with the extension of irrigation to new lands adequate drainage facilities will have to be provided. Experience in the older irrigated areas has shown that in the absence of a suitable drainage system harmful salts tend to accumulate rapidly through the rise of the subsoil water level, as a result of which the land becomes less productive and, ultimately, has to be abandoned altogether, often after very few years of cultivation. The fact that over 400,000 hectares, or more than 60 percent of the area irrigated by flow, are estimated to be subject to excessive soil salinity, illustrates the magnitude of the problem. The Government of Iraq is fully aware of the seriousness of this situation, but, up to the present, plans for reclamation of the salt deteriorated areas have been delayed for financial reasons(7).

Jordan - Most of Jordan's agriculture is based on dry farming methods and, owing to low rainfall, the area of cultivation shows considerable annual fluctuations depending on the amount of precipitation received. In average years some 500,000 hectares, or about 5 percent of the total area of the Kingdom,^{9/} is estimated to be sown to crops, mostly cereals. The area under irrigation is small, not more than 5 percent of the total cultivated area, and is largely centered in the Wadis flowing into the Jordan valley and around a few natural springs further inland.

The two largest rivers in the country are the Jordan and the Yarmouk, but the use of their waters for agricultural purposes remains limited. Various promising schemes are reportedly under consideration. Their implementation requires, however, previous agreement with adjoining countries. A number of smaller projects are already in progress; others will be initiated under the auspices of UNRWA, which has recommended, in particular, development of Wadi Zerqa.

Lebanon - Of a total area of almost 500,000 hectares classified as cultivable land, some 240,000 hectares are at present under cultivation. Government programs are directed primarily toward increasing the irrigated area and it is estimated that a total of 75,000 hectares could be brought under perennial or intermittent irrigation in the near future. According to plans submitted at the FAO Regional Meeting in Beirut in 1949, of this total about 28,000 hectares would be devoted to wheat (under spring time irrigation), estimated to yield 60,000 tons over and above the present average output of 45,000 tons which is inadequate to meet the needs of the country. The remaining area would be used for expanding cultivation of various crops, in particular bananas, industrial crops, vegetables and deciduous fruits. A further extension of the area under cultivation involving control and canalization of the Litani river would include some 30,000 hectares in the Bekaa plain and in southern Lebanon(8).

Saudi Arabia - Only a negligible proportion of the huge sub-continent of Arabia is under cultivation. Lack of water is the main limiting factor and agriculture is almost entirely of the oasis type except in the South-west where cropping is possible under rain-fed conditions owing to summer rains brought in by the monsoonal current from Africa.

Preliminary investigations indicate that appreciable subsoil water reserves exist in certain regions and further geological and engineering surveys are in progress. Where soil conditions are favorable as in north-central Nejd near Buraida and Anaiza, a substantial increase in the agricultural area might be feasible through installation of wells and pumps. In the Hofuf and Qatif area,

^{9/} Excluding West Jordan for which no data are available.

toward the Persian Gulf, where date production is of major importance, plans call for the extension of area cultivated through elimination of wasteful irrigation practices and the application of the water thus economized to hitherto unused but potentially productive land. On the Red Sea coast, in the Hejaz, projects include repair of ancient dams and construction of new ones to divert and utilize for agricultural purposes part of the runoff water during the rainy season.

There is every indication that the Government of Saudi Arabia intends to proceed with its plans. While the total area that may be brought under cultivation will always remain small relative to the size of the country, there is reason to believe that implementation of current plans will produce substantial improvement in the level of food supply as well as in the general standard of living of the local population(9).

Syria - Agriculture is almost entirely of the rainfed type, centered in the west and north of the country. Out of a total cultivated area of 2.5 million hectares, approximately 340,000 hectares or 13 percent were reported to be under irrigation in 1950.

The area of unused but cultivable land has been estimated at 3.4 million hectares, or about 1-1/3 times the area at present under cultivation. Of these 3.4 million hectares some 700,000 hectares are in the Jezireh, a large area of sparsely settled and incompletely developed land in northeast Syria where rainfall can be supplemented by artificial irrigation from the Euphrates and Khabur rivers. Up to the present, development of the country's land and water resources has been slow owing to financial limitations. Projects under construction or to be started in 1951 include irrigation of 9,000 hectares from the Khabur river, partial drainage of the Quaik marshes and extension of controlled irrigation to 15,000 hectares, drainage of the Roudj swamps and irrigation from the Sinn river near Latakia.

A large scale scheme which is at present under active consideration is the drainage of the Ghab marshes in the Orontes valley, and the institution of controlled irrigation in this area. The scheme should produce some 40,000-45,000 hectares for grazing and cropping, possibly in cotton, rice and sugar.

Plans for the development of the Jezireh and the full utilization of the waters of Khabur and Euphrates are still in a preliminary stage and need further investigation from the engineering as well as the economic and agricultural standpoint. It should be noted that these schemes might involve the use of water in Turkey and Iraq and, therefore, should be undertaken only after agreements are reached between these countries(10).

Turkey - The total area of Turkey covers some 78 million hectares of which about 15 million hectares, or almost one-fifth are cultivated. Pastures account for 43 million hectares or 55 percent, and forests for 12 million hectares, or 15 percent. Virtually all cropping is done under rainfed conditions.

Precipitation is adequate in the coastal areas, particularly the Black Sea Littoral, and in the eastern highlands. It tails off on the Central Plateau most of which receives less than 15 inches, in some parts less than 8 inches per year. The country has large groundwater resources which have only been incompletely investigated and abundant supplies of surface waters. So far, development of irrigation has been limited: only 80,000 hectares, or less than 1 percent of the cultivated area, are estimated to be under irrigation.

An important aspect of the Turkish program for increasing food and agricultural production is the reclamation of cultivable lands. It is estimated that at least 9 million hectares now in grass could be converted into crop land provided adequate supplies of machinery were available. Allowing for a reduction

of land now in crops by about 2 million hectares which should be used for pasture purposes rather than crop production, the potential net increase in area under cultivation would amount to 7 million hectares.

In the past few years substantial progress has already been made in this direction under the European Recovery Program. According to the Economic Co-operation Administration, in 1949 about 130,000 hectares of pasture land were, for the first time plowed for crop production; 220,000 hectares of crop land which had been idle for several years, were again tilled for crops, and approximately 8,000 hectares of formerly dry-farmed land was put under irrigation. Plans for 1950 called for the plowing and planting to crops of 540,000 hectares of grass land and some 52,000 hectares of now idle crop land. Whether a similar rate of expansion can be maintained in future years, will depend on the extent to which enlarged supplies of agricultural requisites, especially machinery and fertilizers, can be made available, and on the speed with which satisfactory arrangements can be made for settlement of the newly developed areas.

Programs for more intensive utilization of Turkey's water resources include a number of multipurpose projects involving flood control, hydro-electric power development and irrigation. Most important from an agricultural point of view are the Seyhan valley scheme in the Cilician, one of the country's major agricultural regions, which upon completion would permit irrigation of some 150,000 hectares; and the Gediz and Menderes valley schemes in western Turkey.

West Pakistan - With one of the most extensive canal irrigation systems in the world, West Pakistan's total irrigated land is about 8.5 million hectares. In the two most developed provinces, West Punjab and Sind, the proportion of irrigated land to cultivated area is 70 percent and 77 percent respectively. Two major and several minor irrigation schemes are underway, and these are expected to extend the irrigated area significantly. The Thal project in Punjab, near completion, is expected to add some 650,000 hectares to the irrigated area. Another project scheduled for completion in 1953/54 is the Lower Sind Barrage, which is expected to benefit about 1.1 million hectares of cropland by replacing or improving existing canals servicing 670,000 hectares and extending irrigation to an additional 450,000 hectares. In addition, there are several minor tubewell schemes, most notable of which is the Rasul tubewell scheme not only for providing irrigation, but also for lowering the ground water table in water-logged areas.

The problems of draining of water-logged areas and reclamation of salty lands are two of the most serious facing the Government. It is estimated that some 900,000 hectares of irrigated cropland in West Pakistan have become unproductive due to water-logging and the surface accumulation of deleterious salts. Although many miles of surface drainage canals have been constructed and some drainage wells have been installed, these works have not lowered the ground water sufficiently to reclaim fully most water-logged areas. It is anticipated that the comprehensive investigations now being initiated will reveal that many of the deteriorated lands which have the best soils can be adequately drained and reclaimed by pumping the ground waters from specially designed and properly located drainage wells or by the installation of underground drain tile systems. The lining of irrigation canals and more efficient use of water will also be important considerations for reducing water-logging.

Concluding Remarks

It is extremely difficult, if not impossible, to estimate with any degree of certainty the total amount of additional land that may be brought into cultivation by 1952 as a result of the various programs reviewed above, owing to the fact that precise information concerning the present stage of implementation of the several projects and the rate at which the work is expected to proceed during the next two years, is frequently lacking. Generally speaking, it would seem that most of the expansion in cultivated area would be forthcoming over the next few years from an extension of dry-farming, in some instances, coupled with the

provision of some additional irrigation through utilization of underground and surface waters. Prospects for substantial progress in this direction are especially favorable in Turkey and Iran. However, the speed with which dry-farming methods can be extended to new land will depend to a large extent on the availability of adequate supplies of agricultural production requisites discussed in Sections C and D below.

Most of the irrigation schemes mentioned in the preceding pages are in the nature of long-term undertakings requiring considerable capital investment. Projects involving river valley development may take as much as 25 years or more to obtain basic data, plan and complete. It is clear that while eventual completion of such projects will make it possible to bring into cultivation large tracts of new land, in the immediate future no great changes in the region's total area under irrigation may be anticipated. The most rapid increase in irrigated area probably can be attained through the conservation and utilization of diffused runoff waters from local watersheds on adjacent lands, the diversion of water from small streams or the pumping of underground waters. Surveys, however, should make certain that such activities do not interfere with a public water supply which might be put to more beneficial use in a larger development. On the basis of such information as is available on current programs in land and water development, and targets and forward estimates of major crop areas, it may be tentatively estimated that for the Near East as a whole the increase in cultivated area may reach 5-10 percent in the next few years. Past experience shows that in times of emergency as during the second World War, it proved possible to bring about a rapid increase in the area under cultivation. At the present time, considering the growing population pressure exerted on available land and water resources in the region as a whole, the situation seems sufficiently serious to require maximum efforts on the part of Near East governments to expedite the implementation of their current development programs.

The planning for production through irrigation in the Near East should not be confined to area expansion and neglect the possibilities of attaining large and early increases through the more efficient use of water supplies and lands in established irrigation projects. In fact, in many instances a land and water survey and best use classification may reveal that water is not being utilized on the most productive lands or in the most efficient manner. The reallocation and proportioning of a water supply to suit soil and crop requirements, the modernization of irrigation structures and systems and of methods of preparing land and applying water to reduce seepage and evaporation losses, the augmentation of an inadequate water supply from surface or underground sources or the drainage and reclamation of water logged or salty lands to make possible the growing of more diversified and profitable crops are some of the betterments which should be given first consideration.

C. Measures for Extending Farm Mechanization

Closely related to current programs for increasing the area under cultivation, there has been, in many parts of the Near East region, a recent trend toward more rapid introduction of power-operated farm equipment, particularly on large holdings or in connection with government-managed schemes. This is illustrated by the fact that the volume of imports of farm machinery by the region as a whole since the Second World War has been at four times the rate prevailing in the immediate prewar years. Because of the advance in prices, the increase in the value of imports has been even more striking.

When, however, the utilization of power-operated equipment in the Near East is viewed in a world perspective, the developments of recent years appear less striking. In 1948 the region received about 2.5 per cent of all the factory-produced farm equipment entering world trade, or only 0.5 per cent of world production of these items. The countries of the region contain some 6 per cent of the world's arable land, yet in 1948/49 had only 0.2 per cent of the world's tractors. It is also of interest to note that according to recent estimates, tractors provide less than one per cent of the total draft power available on farms in the region. These estimates emphasize how much room still remains for progress in the mechanization of farming. Continued progress in this direction appears to be a necessity as the general economic development of the region is likely to require greater levels of productivity on the part of agricultural labor to compensate for the shift of workers from the land into other productive activities which is taking place. It is emphasized, however, that this does not necessarily call for the introduction of tractors and other sources of mechanical power. There is great scope for improving the quality and output of draft animals in the region, where relatively little attention has been devoted until recently to the breeding, feeding, and veterinary care of farm livestock. Improvement of work animals and use of more efficient animal-drawn implements and hand tools are likely to be of more immediate benefit to the bulk of the farm population on small units. Power-operated machines are likely to add to the efficiency of large holdings and may be extended to those of medium size through contract arrangements.

The factors determining the existing low level of farm mechanization in the region are generally understood. Many of these obstacles do not lend themselves to rapid modification. They can, however, be overcome by progressive long term policies. Other factors are of a more temporary nature and can be minimized by practical immediate measures. Some of the major obstacles to more widespread introduction of modern labor-saving farm equipment are summarized below, together with examples of remedial measures some governments in the region are taking.

1. Lack of knowledge on the part of farmers and agricultural workers, both in respect of general education and in the handling and maintenance of complex machinery.
2. Inadequate facilities, including local stocks of spare parts and tools, and insufficient competent mechanics for the maintenance.
3. Shortages of and inadequate distribution systems for refined fuels and lubricants.
4. Lack of purchasing power on the part of a majority of the agricultural community in many countries.
5. The small size and frequent subdivision of agricultural holdings.

The following brief country notes indicate some of the special measures being taken by a number of governments in the region to facilitate and encourage the introduction of improved farm equipment. It is emphasized that most of the

measures outlined refer to imported power-operated machinery; very little information is available on steps being taken to improve locally made hand and animal tools. In addition to special action mentioned below most governments which exercise control over imports give preference to agricultural requisites. Advice to farmers on mechanization problems is normally provided in countries where government agricultural advisory services have been organized.

Egypt: To encourage the introduction of modern farm machinery, the Government is granting numerous facilities to individual farmers and cooperative societies such as special credits for the purchase of equipment through the Agricultural and Cooperative Credit Bank. Prices of imported equipment are controlled. The shortage of tractor operators is being remedied by training personnel, with the cooperation of local representatives of foreign farm machinery companies, at the experimental station at Sarka. Testing of imported farm machinery and equipment to determine its suitability under local conditions is being carried out under the auspices of the Ministry of Agriculture.

Iran: The Ministry of Agriculture has promoted the Machinery Company of Iran with a capital of about \$3.5 million for the import and sale of agricultural machinery and tools, which are exempt from customs duties, road and other taxes. The Seven-year Development Plan recommends the establishment of special credits to farmers and cooperatives to improve implements and farm practices.

Iraq: The Ten-year Mechanization Plan aims at quite extensive application of power-farming methods, both by private landowners and through a government tractor and combine contract service. District and mobile repair centres, and stores of spare parts are being established. In addition schools are planned to train sufficient drivers and mechanics in the correct methods of operation and maintenance of machinery. To ensure adequate supplies of suitable fuel and lubricants at appropriate prices the Government is engaged on a project for the erection of a State oil refinery of sufficient capacity to meet internal needs.

Lebanon: The Government grants loans to cooperatives to facilitate the import and use of farm machinery. The establishment of efficient repair centres is being encouraged.

Saudi Arabia: Exemption from customs duties on all imported farm machinery, equipment and spare parts, free machinery maintenance and special credit facilities for purchase of machinery are some of the measures taken by the Government to assist the farmer in improving and intensifying the utilization of his lands. Government owned tractors and assorted equipment are available for contract work at low rates.

Syria: The Government has authorized the Agricultural Bank to sell on easy terms to private farmers the equipment formerly owned by the Mitr. In addition, the Agricultural Bank is distributing tractors and equipment on five-year payment plans. Farmers are provided with tractor fuel at reduced prices and the supply is assured.

Turkey: In Turkey mechanization of farming has been stimulated by the European Recovery Program. The number of tractors used in Agriculture has expanded eight-fold since 1939 and further increases are programmed for the next few years. The Agricultural Bank and cooperative societies are assisting in overcoming the obstacle which capital cost imposes to the wider introduction of machinery. Two schools have been established to train tractor operators and repairmen. Measures are also being taken by the Government and the various selling agencies to remedy, in particular, the shortage of spare parts and workshops which has in the past reduced the utility of farm equipment.

Outlook for Supplies of Imported Machinery

As a result of the expanding re-armament program, prospects are for a decline in the export availabilities of farm machinery from the United States, the main supplier to the Near East of tractors and auxiliary implements. In the beginning of 1951 allocation of raw materials to industry was introduced and, while it was hoped that it would be possible to maintain farm machinery production on a level not more than 10 per cent below that of 1950, some of the large manufacturers may have to cut down their output by as much as 30 - 40 per cent in the course of 1951. Reductions may affect, in particular, the output of heavy crawler-type tractors.

Export availabilities from Western Europe, notably the United Kingdom and France, are also expected to show some decline, especially if current re-armament programs are to be intensified. In view of the re-emergence of Western Germany as a trading partner of the Near East, the recent increase in tractor production in this country is noteworthy, and unless the orientation of its industrial production is changed, may make it possible to enlarge exports of machinery to the region.

Because of the generally uncertain supply outlook, it will be necessary for Near East countries, where mechanization schemes are in progress, to take measures for the most effective utilization of such supplies as are available within the countries or obtainable from abroad. Such measures would comprise: expansion of government tractor and combine services, organization of cooperative pools for joint ownership and use of equipment, establishment of local and mobile repair centers and stocks of spare parts, and training schools for drivers and mechanics. In this connection the experience of Near East countries like Turkey and Iraq, where extension of mechanization along these lines has been undertaken in recent years, deserves careful consideration.

D. Measures and Programs for Raising Crop and Livestock Yields

Apart from expanding the area under cultivation a general increase in agricultural output can also be obtained through raising the level of productivity per unit of land and livestock. The means by which countries in the Near East are endeavoring to achieve this objective are numerous and varied. Foremost among the methods of improving crop yields is, of course, the greater use of available water supplies for irrigation purposes discussed in section B. Other means of agricultural improvement may be classified in a few general categories:

Increased use of fertilizers

Introduction and testing of new crop varieties and improvement of local crops through breeding and selection

Improved tillage practices

Control of field pests and plant diseases

Better practices in breeding, feeding and management of livestock, including poultry

Control of animal diseases

For a proper appraisal of these methods to contribute, individually or in conjunction with one another, to an early increase in agricultural production, it would be necessary to review in detail a broad range of government measures and programs now in progress throughout the region, including those relating to fundamental and applied research in the various fields of agricultural technology, and to the supply and development of agricultural information and advice. Since several of the methods listed are essentially of a long-run nature, yielding maximum benefits only when applied over a number of years, a comprehensive survey of this kind would exceed the limitations of the present Working Paper which is primarily concerned with the assessment of short-term objectives, i.e. the possible increases in the volume of agricultural production by 1952/53.

Viewed from this standpoint some of these methods assume special significance inasmuch as they can be put into operation with comparative ease and rapidity. Of major importance are:

(i) increased use of fertilizers, (ii) introduction of improved crop varieties and provision of good seeds to farmers, (iii) control of field pests and diseases, (iv) control of animal diseases.

The following paragraphs summarize developments as reported to FAO over the past year, with regard to government activities under each of the above headings. Due to lack of information for a number of countries these statements are not a complete survey.

(i) Increased use of fertilizers

In analyzing current trends in the consumption of commercial fertilizers in the Near East it is essential to make a distinction between Egypt and the remainder of the region. In 1949/50 Egypt's consumption of plant nutrients per hectare of cultivated land amounted to over 50 kgs. which constitutes one of the highest fertilization rates in the world. In striking contrast, consumption in the rest of the Near East averaged only a fraction of a kilogram per hectare of cultivated area ^{10/}. On the other hand, the use of animal manure is extremely limited in scope, the greater part of available supplies being used as fuel.

^{10/} Figures refer to total consumption of commercial fertilizers (excluding rock phosphates) expressed in terms of N, P₂O₅ and K₂O.

The position with regard to consumption of commercial fertilizers (nitrogen, phosphoric acid and potash) in prewar and current years is shown below.

Table 7 Consumption of Commercial Fertilizers in the Near East
(in terms of N, P_2O_5, K_2O)

	1938	1947/48	1948/49	1949/50	1950/51
	(..... 1,000 metric tons)				
<u>A. Egypt</u>					
Nitrogen	76.0	64.9	76.0	109.0	109.0
Phosphoric Acid	8.7	7.6	13.5	13.5	18.0
Potash	0.2	-	-	-	-
<u>B. Other Near East</u>					
Nitrogen	0.2	2.3	6.0	5.2	5.8
Phosphoric Acid	-	1.0	1.3	1.4	1.5
Potash	0.2	1.6	2.1	2.3	2.6

Data reflect the steady growth in demand for fertilizers in postwar years. In 1949/50 total consumption in the Near East reached 131,000 tons; an increase of more than half over the level attained in the immediate prewar period. Most of this increase is due to expanded consumption in Egypt where during the war and early post-war years soil fertility had been seriously depleted as a result of curtailment of fertilizer imports and changes in the pattern of crop rotation. However, consumption in countries like Lebanon, Syria and Turkey where commercial fertilizers were virtually unknown before the war, also shows a tendency to rise in recent years. Preliminary data for 1950/51 indicate a further small increase both in Egypt and in other countries.

Nevertheless, for the Near East as a whole, the estimated total consumption in 1950/51 of 137,000 tons of plant nutrients in the form of commercial fertilizers appears quite inadequate to meet the needs of desirable crop and food production, and, in most of the region, much larger quantities would be required to raise the low average crop yields to a more satisfactory level.

Furthermore, the present pattern of consumption in the Near East shows a fundamental weakness in that the application of fertilizers is concentrated to a large extent on a few high value cash crops mostly produced for export such as cotton and citrus fruits whereas consumption in the production of food crops remains extremely limited. Since the region depends on imports for the bulk of its fertilizer requirements, the cost of farm delivered fertilizers is high relative to the price the cultivator receives for his produce. Reduction of fertilizer prices is therefore an urgent problem which needs to be tackled in many countries. In this connection considerable importance attaches to current plans to expand production of commercial fertilizers in the Near East itself.

In Egypt construction of a nitrogen fertilizer plant at Suez was completed last year. At full capacity the plant will produce about 250,000 tons of calcium nitrate or nearly 39,000 tons N per year. Erection of another nitrogen plant at Aswan with about the same capacity, is under consideration in association with the proposed electrification of the barrage.

While most of Egypt's production of rock phosphates is normally exported local processing into superphosphates has, shown an appreciable increase in recent years. Output now averages some 15,000-20,000 tons. In Turkey plant facilities for production of superphosphates do not exceed 16,000 tons and are reported to be operating at close to maximum capacity.

There exist substantial deposits of potash in various parts of the Near East. Consumption is very small, the region having, thus far, depended largely on soil reserves for its potash requirements.

On balance, it would appear that at least during the next few years, the Near East will continue to depend to a considerable extent on imports of commercial fertilizers, particularly nitrogen, unless construction of additional fertilizer plants is undertaken at an early date. During the FAO Near East Regional meeting at Beirut in September 1949, attention was drawn to the possibility of using the large quantities of natural gas which are now going to waste in Saudi Arabia for the manufacture of nitrogenous fertilizers, possibly with the participation of other interested countries in the region. Other opportunities for expanding facilities for fertilizer production in association with the erection of hydroelectric plants will arise as current projects for the construction of dams and barrages now under way in several Near East countries are completed.^{11/} Whether such opportunities will be fully utilized, depends, of course, in each case, on a number of varying factors among which the availability of investment capital is of special importance.

In order to minimize the adverse effects of high prices on farm consumption of fertilizers, most Near East Governments have adopted measures such as subsidization, total or partial exemption from customs duties, etc. However, in the absence of reliable statistics of prices paid and prices received by farmers, it is difficult to appraise the effectiveness of these measures. A comparison of the 1950/51 data of commercial fertilizer consumption with the only slightly lower figures for the preceding year would seem to indicate that the increase in consumption which has thus been achieved, is rather limited.

From a technical point of view more attention needs to be given to the investigation of the wider problem of maintaining and improving soil fertility, both under dryfarming conditions and in irrigation agriculture, through efficient use of manures of all kinds, organic as well as inorganic, and through improved rotation practices. Except in Egypt and Cyprus where experimental work on these matters is well advanced, there is over most of the Near East a serious lack of knowledge with regard to manuring techniques most suited to local conditions. Expansion of current research including field experiments to determine fertilizer response of individual crops, particularly food crops, in various rotations and under the conditions of soil and climate prevailing in several countries, deserves a high priority in any program to increase crop yields.

"(11) Improvement of crop varieties and provision of good seeds to farmers"

In recent years notable results have been obtained in some Near East countries in the development of plant varieties with yield and quality characteristics superior to indigenous ones and the introduction from other countries of varieties which are not grown locally. Although as in the case of plant nutrition, there is a tendency to concentrate research on the improvement of exportable cash crops, a growing number of variety trials are being initiated with other crops as well, particularly cereals, potatoes, olives, vines,

^{11/} See Near East Resources for Production of Synthetic Nitrogen Fertilizers. Report on Field Survey - FAO, June 1949.

deciduous fruits and nuts. The work in progress, however, is often severely handicapped by lack of technicians, laboratory equipment and facilities for properly conducted field experiments.

By way of illustration instances are given below of the types of activity carried out in some Near East countries. As previously noted the review is incomplete.

Egypt

Apart from continuous efforts to improve further the already superior quality of Egyptian cotton varieties, important work has been started on cereals. A test flour mill will be constructed to examine new strains in process of development as is done in the cotton spinning test mill. A new rust-resisting strain of wheat (Giza 139) giving a higher yield of 3/4 ardeb per feddan will shortly be made available for cultivation in Lower Egypt. Another strain for Upper Egypt (Giza 135) promises an average increase in yield of one ardeb per acre.

Other new cereal varieties include:

Rice - Selected Yabani 7 which is still under propagation and proved to be more resistant to blight than Yabani 15. Average increase in yield estimated at 18 per cent.

Selected Yabani 47 - still in the first stages of propagation, resistant to blight, to replace the variety Sabeini as a flood crop with 45 per cent higher yield. Selected Agamil - under propagation, blight resistant and specially adapted to newly reclaimed salty lands with 28 per cent higher yield than the variety Nabatat Asmar grown under similar conditions.

Maize - Various maize hybrids have been tested and were found to increase the average yield by 20 per cent. The problem now under consideration is the production of seeds of these hybrids.

In addition, tests are being made with new varieties of millet, sesame and groundnuts.

Cyprus

A continuous program for the testing of locally bred and exotic varieties of wheat is in operation at the Central Experimental Farm near Morphou and in various areas of the country. Extensive trials are also carried out with imported fruit varieties at the deciduous fruit stations of the Department of Agriculture.

Syria

In its fight against rust disease the Syrian Government is engaged in a program for the testing of local and imported varieties of early maturing wheat with respect to rust resistance. Different varieties of hybrid sorghums imported from the U.S. are tested to determine their adaptability to local conditions.

In Iraq good results have been obtained in the development of new varieties of wheat, barley, linseed, cottonseed and other crops, while in Iran emphasis is placed on the improvement of some of the country's major crops including cereals, cotton and tobacco. In Jordan, where conditions are suitable for a considerable expansion of fruit and vegetable growing, increasing attention is being given to the improvement of these crops at the experimental stations, farms and nurseries of the Department of Agriculture. Pakistan is concentrating on improvement of cotton, particularly in the Punjab, which accounts for nearly two-thirds of the country's cotton output.

The discovery or development of superior crop varieties at experimental stations of state farms does not make them available immediately to the farmers. The foundation seed needs to be multiplied, preferably in government controlled institutions or by some selected farmers so that, ultimately, supplies of clean and pure seed will be available for distribution. Measures must also be taken to prevent deterioration and contamination after the seed has been released to the cultivators.

Although there exists in countries like Egypt and the Sudan an efficient system for the distribution of seeds (especially cotton and, in the case of Egypt, a rapidly increasing number of other crops), throughout most of the Near East current methods of seed distribution are in urgent need of improvement. Experience has shown e.g. in Cyprus, that Government sponsored schemes for increasing the amount of good seed available to the farmers is one of the quickest means for increasing production. The early initiation of such schemes in other Near East countries appears highly desirable since there are strong indications that the continued shortfall in crop yields in post-war years as compared with the prewar period (see table 2 below) is due, to a large extent, to the use of inferior seeds purchased from small uncontrolled merchants or taken from the crop of the preceding year and, consequently, often deteriorated or contaminated⁽¹¹⁾.

(iii) Control of Field Pests and Plant Diseases

The current locust invasion in Iran and Pakistan which menaces large areas in the Near East has drawn renewed attention to the risks to which crop production in the region is exposed. In any one year losses from plant pests and diseases are extraordinarily high. In Egypt, for example, the cotton leaf worm has been responsible for a loss of E£ 30 million in last year's cotton crop, apart from damages done to other crops. In Turkey annual field losses are estimated to be in excess of 20 per cent and similar figures could be quoted for other countries.

The region's extreme vulnerability has prompted many governments to intensify pest and disease control measures including the organization of plant inspection and quarantine services, research laboratories and field campaigns. To be fully successful, such measures should be closely coordinated at a regional level, particularly in the case of pests such as locusts and "Sunn" which are common to more than one country^{12/}. While in a number of cases substantial progress in this direction has already been made, in others the situation remains unsatisfactory due to variations in the effectiveness with which control measures are carried out in individual countries.

The techniques of plant protection are generally understood although further research is required in connection with the most efficient use, under local conditions, of some of the recently developed pesticides. As in the case of commercial fertilizer, however, the principal factor limiting the scope of consumption to a small number of crops, is the high cost of imported pesticides and fungicides. The possibility of starting production in the Near East might usefully be explored⁽¹³⁾, and an extension of measures taken by some governments to reduce the cost to farmers appears advisable.

(iv) Control of Animal Diseases

The economic importance of animal husbandry in the Near East is frequently underestimated. Undoubtedly this is largely due to the peculiar nature of the region's agricultural economy with its marked distinction between settled agriculture centered on arable farming where livestock is considered

^{12/} See, for instance, Final Report of the FAO International Conference on the Moroccan Locust, Beirut, September 1949.

chiefly as a source of draft power, and pastoral agriculture with its different forms of nomadic and semi-nomadic animal husbandry. While gradually disappearing in countries like Egypt where conditions made it possible to achieve better integration of livestock with arable farming through the inclusion of fodder crops in the rotation, the dividing line between settled and pastoral agriculture remains quite noticeable over a large part of the region ^{13/}.

For various reasons, political and social, government programs have tended, in the past, to give more attention to the problems of the former at the expense of those, at least equally serious, of the latter. According to recent FAO estimates, livestock products account for approximately one-third of the total agricultural production of the Near East ^{14/}. It is, therefore, interesting to note that, in recent years, substantial progress has been made in several Near East countries, in at least one field of livestock improvement: the prevention and treatment of animal diseases.

In the Near East high incidence of disease is as much a handicap in animal husbandry as in crop production. In many countries the major epidemic diseases of animals such as rinderpest, pleuropneumonia, foot and mouth disease, are found. Parasitic diseases are a constant menace to livestock in irrigated areas. Diseases due to nutritional deficiencies are widespread on over-stocked and over-grazed grasslands and in areas where fodder conservation is inadequate.

Current government programs are designated along different lines in accordance with the special needs of each country.

In Ethiopia, a rinderpest control program was initiated in the beginning of 1948, with the cooperation of FAO. More than one-half million animals have so far been vaccinated and field operations are now brought up to a scale which will permit much faster progress. At the same time, production of improved vaccines and biologics is being expanded. Campaigns for the control of rinderpest have also been or are being conducted in Iran, Afghanistan and Pakistan.

For Egypt official reports indicate that improved methods of treating animal diseases are being more widely applied. Large scale vaccination against certain animal diseases, including those of poultry, is carried out free of charge to the farmers. Production of vaccines and biologics is expanding rapidly.

In Cyprus severe losses occurred amongst poultry during the summer of 1949 when Newcastle disease was diagnosed for the first time on the Island. Mortality rates in affected flocks varied from 90-100 per cent. The disease was brought under control through quarantine measures and compulsory vaccination. Continuous study is made of the effectiveness of the various vaccines available.

In Syria campaigns are being conducted for vaccination against sheep and goat pox and for the treatment of certain parasitic diseases. A veterinary laboratory for the production of vaccines is under construction.

In Turkey the animal disease control program for 1950 called for a 20 per cent expansion over the preceding year during which 15 million head of livestock were vaccinated and treated. Vaccines, serums and other biologics are produced locally.

Following the continued application of animal disease control, greater stability and a slow expansion in livestock numbers are being obtained in a number of Near East countries which, in turn, will result in increased supplies

^{13/} On the other hand, the dividing line between pastoral agriculture and forestry is not clear at all, and this accounts for the poor condition of most of the forests of the region which are continuously over-grazed and in grave danger of being destroyed unless special measures are taken.

^{14/} Calculated by weighting commodity output by FAO index price weights.

of animal products for local consumption and export.^{15/} Marked increases in numbers, however, involve heavy risks of overstocking and overgrazing which already constitute serious problems in many parts of the Near East. More emphasis, therefore, will need to be placed on the longer range methods of livestock improvement such as the building up of a balanced system of mixed farming which can provide adequate supplies of animal feedstuffs, and the improvement of the general level of productivity of livestock through breeding and selection. With very few exceptions, little progress has yet been made in either of these directions, the main reasons being a lack of competent technicians, and the reluctance of governments to embark upon expensive livestock improvement programs which, by their very nature, do not yield any returns for a relatively long period of time. The urgency of the problem is, however, increasingly realized and it is hoped that, as programs for agricultural expansion are further developed, more attention can be devoted to the long-term aspects of livestock improvement.^{16/}

From the preceding analysis the following broad conclusions seem to emerge:

1. In many countries of the region programs are in effect to improve the productivity of land and livestock. Thus far, the emphasis has been on improvement of crops rather than livestock, but a tendency to correct this lack of balance becomes increasingly evident. It is evident, too, that the extension of current programs to comprise investigation of the longer term aspects of livestock improvement through better management, feeding and breeding calls for larger numbers of competent technicians than at present available in the several countries, and for provision by governments of increased funds for laboratory research and field experiments. Pooling of resources of countries facing common or similar problems, may provide a partial solution.

2. The development of new crop varieties, better livestock breeds and other achievements in the field of agricultural technology will not lead to an increase in the general level of agricultural and food production unless steps are taken to bring the results obtained in laboratories and experimental stations to the farmers in a form they can readily absorb (see following section under (i) - Agricultural Education and Extension Services)

3. Greater use by farmers of production requisites such as commercial fertilizers, insecticides and pesticides, is essential in any agricultural development program. In this connection possibilities of further reducing prices of certain types of requisites through expanded production within the region, subsidization and other means deserve careful consideration.

The task facing Near East governments in attempting to realize their production targets for the years ahead is well illustrated by an analysis of the average yields per hectare of some major crops in postwar years

^{15/} At the present time the export of animals from rinderpest countries is not possible to areas which are free from this disease. As a consequence of recent control programs in Ethiopia, there have been exports of vaccinated animals from areas in which vaccination had been carried out, to neighboring countries for immediate slaughter on arrival. It is unlikely that such exports will be sufficient to take care of the increase in livestock as a result of animal disease control. It is, therefore, necessary that steps be taken to develop additional export channels along with programs for disease control; for example, through the establishment of packing houses for the canning of meats.

^{16/} For a survey of current government activities and the problem involved, see FAO Development Paper No. 6, Improving Livestock under Tropical and Sub-tropical Conditions, July 1950.

compared with prewar, and the prospective yields for 1952/53 as implied in government estimates or visible trends for area and production. Data summarized in Table 8 refer to Egypt and "Other Near East" and are expressed as a percentage of the prewar average.

Table 8: Average Yields of Major Crops in 1952/53
Expressed in Relation to the Prewar Average

Commodity	1034 - 38 = 100	
	1946-49	1952/53
<u>A. Egypt</u>		
Total grains	93	107
Wheat	86	106
Barley	89	108
Maize	82	94
Millet and Sorghum	83	102
Rice	110	113
Potatoes	115	120
Pulses	96	101
Sugar	99	116
Cotton	106	109
<u>B. Other Near East</u>		
Total grains	89	105
Wheat	87	106
Rye	96	95
Barley	84	100
Oats	91	101
Maize	89	100
Millet and Sorghum	104	109
Rice	93	99
Potatoes	178	198
Pulses	98	107
Sugar	109	100
Cotton	114	123
Tobacco	94	111

The significant fact to be noted is the continued shortfall of yields, particularly of grains and pulses, both in Egypt and in other parts of the Near East, in postwar years as compared with the prewar period. The increase in cotton yields demonstrates the results that can be obtained through a sound program for the improvement of specific crops. Increased rice yields in Egypt are due to improved cultivation practices. Other improvements such as in yields of potatoes and sugar (in countries outside Egypt) are more apparent than real since production of these crops has only become important in recent years.

The postwar decline in yields of grains and pulses which account for the bulk of crop production in the Near East, is a disturbing aspect of the region's present food and agriculture position. It is only partly explained by the unfavorable weather conditions which prevailed over parts of the Near East in the past few years. Probably more important factors are the use of low quality seeds, inadequate maintenance of soil fertility and insufficient protection against plant diseases and field pests. Neglect of these factors will continue to be responsible for crop yields far below those which could be realized by a vigorous and enlightened policy of crop improvement. Such a policy must be based on the provision of facilities for agricultural research in plant breeding and methods of crop production, and on the organization of efficient extension services. These developments take time and are effective only when soundly planned and consistently supported.

Since grain crops are of first importance in the agriculture of the Near East, and since wheat occupies such a prominent place in the people's diet of this area, it would appear that measures to improve yields should be directed in the first instance to grains and especially to wheat.

There is no doubt that varietal improvement of wheat by plant breeding offers exceptional opportunities for increasing yields and controlling certain diseases of this crop. In most of the region research in wheat breeding has not progressed favorably; the number of breeders are too few and the facilities for field experimentation inadequate to deal with some of the major problems. In order to stimulate a vigorous policy of wheat improvement, it is suggested that Governments may wish to consider the formation of a Wheat Breeders' Working Party which would plan a comprehensive wheat breeding program for Near East countries in which the plant breeders would together discuss these problems and devise cooperative breeding projects for their solution.

E. Measures for Improving the Social and Economic
Position of the Farmer

Background.— Some 90 million people in the Near East depend on agriculture for their livelihood. Most of them are living on the extreme margin of subsistence. Desperate poverty, with its concomitants of ignorance, malnutrition and disease, is indeed the central fact of rural life in the Near East.

The low level of income is illustrated by recently published estimates of national per caput income in ten countries in the region. ^{17/}

Table 9. - Estimates of National per Caput Income of Selected
Countries in the Near East

(Measured in U.S. dollars at the 1949 value)

<u>Country</u>	<u>U.S. dollars</u>
Turkey	125
Lebanon	125
Egypt	100
Syria	100
Iran	85
Iraq	85
Afghanistan	50
Saudi Arabia	40
Yemen	40
Ethiopia	38

The true significance of these figures is revealed by a comparison with data for countries in other regions which range from a maximum of \$1,453 in the United States to a minimum of \$25 in Indonesia. At the upper end of the scale, income levels in the Near East are comparable with those of Latin American countries like Mexico and Brazil; at the lower end, with India and China.

Information on farm income is fragmentary. Two examples quoted at the recent United Nations Social Welfare Seminar in Cairo may serve to show the trend. They provide a striking illustration of the extent of rural impoverishment and, though not strictly comparable with the data included in Table 1, are indicative of the extreme inequality in income distribution prevalent in most Near East countries.

In Egypt the average income of some 95 percent of the agricultural population, comprising cultivators on holdings up to 3 feddans and, in addition, the landless agricultural laborers, is estimated to amount to less than EE 10 per year (equivalent to \$28 at the current rate of exchange). For Iraq it has been calculated that the average annual income (in prewar prices) of the peasant averages ID 6 - 10, in the northern part of the country, and ID 3 in the central and southern areas (corresponding to about \$30 - \$50, and \$15, respectively, in current prices).

Average food consumption levels will be examined in a subsequent chapter of this Working Paper. Here it should be noted only that, in most instances, the diet of the farm population is inadequately reflected in the national averages which relate to both urban and rural population. "Anything lower than what the

^{17/} United Nations Statistical Office, December 1950.

majority of the fellaheen eat would mean death" 18/. The diet of the fellah consists mainly of carbohydrates in the form of bread, with pulses, some vegetables and tea, or dates and sometimes leban or cheese. Meat is eaten on infrequent occasions.

These low levels of income and consumption derive, of course, primarily from the extremely low productivity of the Near East peasant economy in terms of output per head. By way of illustration the average production of grains per head of the agricultural population is shown in table 10.

Table 10. Production of Grains per Head of Agricultural Population i/

<u>Country</u>	<u>Kilograms per Head</u>
Egypt	341
Iran	177
Iraq	349
Syria	341
Turkey	637
Near East	284

i/ Data refer to production of all grains including rice. They are based on production and population estimates for the year 1948.

It emerges from this table that in the Near East output of grains per head of agricultural population averages less than 300 kgs. as against 500 kgs. in the world as a whole, 800 kgs. in Europe, and 5,500 kgs. in the United States and Canada. With regard to individual countries, the remarkable correspondence should be noted between the data for Egypt, Iraq and Syria which, in turn, are fairly close to the regional average.

The region's low agricultural productivity is only partly explained by unfavorable conditions of soil and climate, and the meagerness of natural resources in relation to population. Of equal importance is a series of social and institutional factors among which the following should be noted.

Foremost is land tenure. Predominant systems of land ownership, distribution, inheritance and division are hardly conducive to optimum farming efficiency. In many countries, settlement of land titles is as yet incomplete so that farmers do not know exactly the amount and category of land they own. In others, various forms of collective and semi-collective ownership of farm land as practiced have given rise to strip-holdings and excessive fragmentation, accelerated as a result of the customary laws of inheritance. Moreover, in most Near East countries, a high proportion of the cultivated land is concentrated in the hands of large absentee land owners. The greater part of this land is cultivated under a system of share-tenancy under which the tenant has generally no definite lease on his holding and is subject to eviction by the landlord at will. Insecurity of tenure, together with the fact that in most cases rent is paid as a fixed share of the produce, discourages the cultivators from improving a soil they do not own.

Second, there is the high incidence of disease. Malaria and other environmental diseases; endemic worm diseases such as bilharzia and ankylostomiasis; ophthalmia, tuberculosis, trachoma, and typhoid caused by unsanitary conditions; and deficiency diseases such as pellagra and rickets are widespread. Medical aid is extremely limited in rural areas and among the local population knowledge of causes and prevention of disease is meager.

18/ Dr. Laman Amin Zaqi at the Second UN Social Welfare Seminar, Cairo, November-December 1950.

A third factor is illiteracy. According to authoritative estimates literacy rates of most Near East countries (with the exception of the Lebanon) range from 10 to, at best, 25 percent. Furthermore, the few who finish primary school tend to migrate to the cities.

All these factors are interdependent and function as both causes and effects. The poverty of the Near East farmer is caused by and is a cause of ignorance and the maintenance of inefficient farming practices. It is enhanced by disease resulting from malnutrition and poor housing and sanitation facilities, and inseparably linked with Near East conditions of land tenure.

It is obvious that this vicious circle can only be broken by a major attack on rural conditions. Efforts to improve education, health, and other social services are an indispensable counterpart of agricultural development. Yet it is precisely on this point that government programs show serious shortcomings largely because much of what is being done with respect to rural reconstruction is in the nature of palliatives and partial improvements only.

It is impossible, within the limitations of this Working Paper, to analyze in detail the various types of programs and measures in effect or under consideration, for the development of social services. By way of illustration the questions of agricultural education and extension, and of cooperatives and rural credit, which play an important part in any program of agricultural improvement, are briefly discussed below.

(1) Agricultural education and extension services

Agricultural education and extension services are essential requisites to technological advance. Unfortunately, with one or two notable exceptions indicated below, most Near East countries have not yet progressed in any one of these fields beyond the earliest stages of development. Opportunities for theoretical and practical training in agricultural science are inadequate and only little progress has been made to date in the organization of extension services. Governments are aware of these deficiencies, however, and some preliminary steps are being taken to improve the situation. Recent developments as reported to or investigated by FAO over the past year are summarized below, but the information available is by no means complete ^{19/}.

Egypt. Egypt is one of the few countries in the Near East where agricultural education and extension services are already well developed and continuously expanding. A comprehensive program of agricultural extension was launched in 1945. Its ultimate goal is to establish for every 6,000 hectares of cultivated area an agricultural center consisting of two units, general and veterinary (about 400 in total). Each will be run by a qualified expert and several assistants residing at the center. Cooperation between staff and local people will be assured by the organization of an agricultural council representing the cultivators of the various villages, which will participate in the formulation of the center's policy. So far, thirty-six of these centers have been completed, twenty-five more are being organized, and it is expected that a further fifty-two centers will be added in the course of the coming two years.

Constant progress is also being made in the organization and expansion of rural social centers. To date, 121 social centers are in operation, distributed all over Egypt. It is planned over a period of fifteen years to have each village served by some such center. Their scope of activity is broader

^{19/} See report of the United Nations Economic Survey Mission to the Middle East for details regarding Iraq, Jordan, the Lebanon and Syria, and also the valuable paper on Fundamental Education in the Arab World presented by Dr. Matta Akrawi at the Second Social Welfare Seminar in Cairo, 1950.

than that of the agricultural centers mentioned above, since in addition to giving advice on better farming methods, seed selection, use of fertilizers, etc., the social centers are responsible for improving general standards of education, health, and village life. Equally important as these activities, are the methods being used. With the encouragement and assistance of the government, social centers are organized by the people themselves on a self-help motive. They contribute toward the initial cost of establishing the center and participate through village committees in all stages of its work^{20/}

The program of social centers as conceived in Egypt constitutes the most comprehensive attack on rural reconstruction yet undertaken in any Near East country. It is believed that the introduction of similar schemes in other countries would appreciably accelerate the improvement of rural standards of living in the region.

Iran. The Iranian Seven-year Plan gives special attention to measures for raising the general education level of the country. Among the projects presented, the following relate more particularly to agricultural education in rural areas: a four-fold village development program offering anti-illiteracy training, handicraft production, public health instruction, and simple agricultural training; a travelling educational mission program offering adult education and stimulating interest in the four programs mentioned above; and a training program to train teachers for the rural schools where agriculture will be a prominent part of the program of studies. With a view to improving the standard of professional agricultural education, the need for a more adequate technical training program is emphasized which would involve extending the present three-year course at Karaj College, with an enlarged staff and a more complete curriculum. The setting up of a new Research and Extension Institute is recommended. In addition to conducting a nation-wide program of research in the various phases of agriculture, the Institute as planned would also organize and administer a program of rural teaching through extension specialists and agents^{21/}.

Iraq. Facilities for theoretical and practical training in agricultural science are gradually being expanded. In a number of rural schools the subjects of elementary agriculture and gardening have recently been introduced. An Agricultural School located near the central experiment station of the Department of Agriculture provides a three-year course in general agriculture. Qualified graduates are given an opportunity to work in the Department and after serving a term of one or two years may be sent abroad for further specialized studies. It is intended to open a Higher College of Agriculture in the near future.

Agricultural extension work is carried on through demonstration farms and nurseries, located in each major region of the country, with a number of field agents extending help and advice to the farmers. Special importance attaches to the training program recently initiated by the Department of Farm Mechanization for instructing farmers in the operation and maintenance of farm machinery.

Syria. Over the past few years, Syria has been actively engaged in overhauling and improving its entire system of agricultural education. In doing so, it has taken advantage of the presence of a number of Palestinian education specialists and teachers of agriculture. As a result of this reorganization, the teaching of elementary agriculture is now included in the curriculum of rural and tribal schools. In order to prepare suitable teachers capable of teaching in the rural schools, Syria has recently opened a rural teacher training college at Yabroud.

^{20/} For further details, cf. Social Welfare in Egypt, Ministry of Social Affairs, Cairo, 1950.

^{21/} Cf. Report on Seven-Year Development Plan, Volume 1.

So far, less progress has been made in expanding facilities for agricultural training of intermediate and degree standing. For the training of its higher staff, Syria, like other countries in the Near East, has relied till now on foreign universities. A plan for setting up in Syria a college of agriculture for advanced training of students after completion of their elementary and secondary agricultural studies is under consideration. Its implementation will depend, to a large extent, on the possibility of securing, at least during the early stages of the College, the assistance of foreign teachers and experts.

Progress in expanding the activities of the agricultural extension service is rather slow owing, mainly, to lack of qualified extension personnel.

Turkey. In Turkey, the importance of training of the farmers as part of the country's program to augment agricultural production, is increasingly being realized. An extension service was recently organized and put into operation, with approximately 80 county agents. As elsewhere in the Near East, the service operates under serious handicaps. Qualified personnel familiar with modern agricultural extension techniques is scarce. Adequate transportation facilities are lacking. There is little correlation between research, farmers' problems, and extension. However, under the Turkish long term development program, vigorous action is being taken to improve this situation. The agricultural education program for 1950 included, for instance, the exchange of technical personnel between the United States and Turkey involving the employment of U.S. agricultural specialists as advisors to the Turkish Ministry of Agriculture and practical field training in the U.S. of Turkish agriculturalists; provision of transportation units for extension workers; supply of scientific equipment, seed for experimental and demonstration purposes, etc.

West Pakistan. Immediately following the establishment of Pakistan, the Government undertook to rehabilitate provincial and central institutes of research and agricultural colleges. The Government now maintains advisory services for agriculture, animal husbandry, forestry and fishery development. There are also separate departments for cooperatives and marketing, plant protection, soil surveys, zoological surveys, marine fisheries and statistics. In the province of West Punjab and Sind the agricultural extension services have been most developed, and progress is being made in the northwest frontier province and Baluchistan. In the field of agriculture the extension services are engaged in laying out experimental plots, distributing improved seeds, encouraging the growing of fruit trees and experimentation with fertilizers. Instruction in the preservation of fruits and vegetables, as well as nutrition and home management, has also begun.

In conclusion, it would appear that marked progress is being made in several Near East countries toward the expansion of basic agricultural education, particularly through its introduction in rural schools. The importance of this trend should not be underestimated. As noted in the discussions at the Second Social Welfare Seminar in Cairo, it is by relating education more closely to the conditions and problems of daily life that pupils are made to apply themselves, at an early age, to the study of their environment in order to develop new ideas about its improvement. A foundation is thus laid and a desire stimulated to acquire more advanced knowledge of agricultural science and methods. However, progress in increasing opportunities for obtaining this type of knowledge has been slow, due to lack of funds, qualified teachers, buildings, and equipment.

An even more serious situation exists with regard to the current rate of development of advisory and extension services to farmers which is completely inadequate to meet the needs of the region. Virtually all countries in the Near East have substantial programs of agricultural development involving considerable improvement in productivity both of land and labor. If the aims of these programs are to be attained, it will be necessary in the years immediately

ahead to fit more modern techniques into the age-old patterns of peasant farming. While there is a growing recognition of the need for governments to intensify their activities in making adequate provision for agricultural extension services and practical demonstrations of the new methods and equipment to be adopted, most countries, thus far, have only taken a few hesitant steps in this direction.

(ii) Development of Cooperatives and Agricultural Credit.

Cooperative societies provide one of the best means by which rural communities in economically less developed regions can be organized to increase production and improve their standard of living. In many parts of the Near East, in particular, the individual farmer is often unable to obtain and utilize the resources necessary to increase the yield of crops, or improve processing, transport, marketing, and other services. Frequently he is exploited by the creditor or the merchant, or suffers because there are too many intermediaries between him and the producer of his requirements and the consumer of his products. These disadvantages can be eliminated or, at least, substantially reduced through the organization of cooperative societies.

The importance of cooperatives to achieve these aims has long since been recognized in several Near East countries. In Cyprus, for example, the cooperative movement was started as early as 1916, and though only moderately successful until its reorganization in 1934, it has since become the backbone of the rural economy throughout the island. According to the 1946 Census of Population and Agriculture, 58 per cent of the farmers were members of cooperative societies. In Egypt the number of agricultural cooperatives totalled 1,692 in 1950 with over 530 thousand members. Assuming that each member represents a family of six, more than three million people, or about one-fifth of the total rural population, were served by cooperatives. In Turkey cooperatives during the past twenty years, have rapidly increased in numbers and, at present affect an appreciable proportion (about one-tenth) of the farm population. In other parts of the region the cooperative movement, despite some government encouragement, has not yet taken hold in the countryside. Mention should be made of the new cooperative law recently passed in Syria.

The types of cooperatives established in the various countries reflect the adaptability of this form of rural organization to meet special situations and needs. Among the most common are credit societies to provide both an opportunity to save and a reasonable system of controlled credit, and marketing societies to eliminate unnecessary middlemen and to improve marketing methods. Examples of both types are found in Egypt, Turkey, and Cyprus where the cooperative movement is already firmly established. In other countries, the need for such organizations is becoming more and more apparent and, especially in Iran and Syria, specific measures to promote their establishment are under active consideration. Agricultural machinery societies, to provide for groups of farmers, tractors and other machinery for cultivation and harvesting, and irrigation and land leasing societies are of particular importance in connection with the proposed development of new areas in countries like Syria and Iraq. The development of other types of cooperation such as processing and consumer societies is well advanced in Egypt. In West Pakistan various types of cooperatives have been developed including credit and marketing societies, stock breeding cooperatives, societies for consolidation of holdings and multipurpose cooperatives. In West Punjab Government land was made available for cooperative farming societies and land colonization. At the present time there are some 200 such societies holding more than 80,000 hectares of land.

In spite of the fact that the cooperative movement has met with a considerable measure of success in certain Near East countries, it should be recognized that on the whole development has been slow. Many obstacles are to be overcome in the formation of cooperative societies under Near East conditions. Illiteracy is widespread and it is difficult to find suitable officers; there are family feuds and political conflicts in the villages; and too often vested interests of moneylenders, merchants and big land owners combine in an attempt to destroy the movement at birth.

No doubt, it is possible to overcome these obstacles providing that governments, without attempting to compel or to replace local initiative, are prepared to play an active part in promoting and financing the cooperative movement. Such government intervention would seem to be required particularly in the development of rural credit facilities.

Chronic indebtedness of the peasant is a major factor under-lying rural poverty in the Near East. A large share of the farmer's meager income is usually taken by the landlord. Owing to low crop yields the cultivator has no reserves and, in a bad year, must borrow at exorbitant rates of interest for both production and consumption purposes. Frequently unable to repay his debts, he loses his economic freedom of action and becomes like a serf to landlord, merchant or moneylender, who constitute in many instances the only sources of farm credit. It is obvious that a monopolistic position of this kind may easily lead to abuses, but it would be unjust to place the blame entirely on the landlords and moneylenders alone: the general shortage of liquid capital, the frequently unproductive use of loans, and the inadequate security offered by many prospective borrowers are also important aspects of the problem.

To meet the need for public farm credit, government policies in several countries have been directed in the past toward the setting up of special agricultural banks. While, in some instances, these banks have proved useful in reducing to some extent the usurious exploitation of the farmers, their scope of operation so far has been rather limited. In general, the banks have tended to concentrate their activities on the issue of short term loans rather than intermediate and long-term lending for investment purposes. In practice their business is with large farmers rather than small cultivators who are frequently discouraged by the exacting formalities, or unable to meet the rigid standards of credit rating established by the banks. The masses of sharecroppers who have no land to offer as collateral continue to depend on private moneylenders as before. On the other hand, inadequate supervision of the use of loans often results in funds being wasted for unproductive purposes.

The need for expanding farm credit, both short and long-term, is keenly felt, especially in those countries where extensive programs for agricultural development are currently under way. Improvement is being sought mainly in two directions: development and strengthening of cooperative credit institutions, and transformation of existing agricultural banks into more effective sources of credit, both to individual borrowers and cooperatives, through increase in capital, liberalization of administrative procedure, etc. A summary review of the current situation with regard to agricultural credit may serve to illustrate the progress made to date.

Cyprus. In 1949 there were 440 credit societies and saving banks in existence. The Cooperative Central Bank issued £572,000 in short-term loans and £15,000 in medium term loans. The Bank loans at 5 per cent and the societies at rates varying between three and seven per cent. Long-term agricultural credit is provided by the Agricultural Bank of Cyprus. Long-term loans issued by the Bank in 1949 amounted to £55,000 and £32,000 was issued as medium term loans to vine growers to alleviate their financial difficulties. An interest rate of 6 percent is charged (13).

Egypt. Considerable attention has been and continues to be given by the Egyptian Government to improving the provision of credit for agriculture. An Agricultural Credit Bank was founded in 1931. Its activities include selling machinery and fertilizers to the farmers for cash or on credit, and granting short-term loans up to 14 months; and longer term loans up to 10 years, for machinery, livestock and land improvement. In 1948 the Bank was transformed into an Agricultural and Cooperative Credit Bank, a measure intended to facilitate financing of agricultural cooperative societies. In recent years, the amount of credit extended by the Bank has been expanding rapidly, rising from £L 3,360,000 at the end of 1945 to £L 7,395,000 in 1948. While these sums may not seem very large in relation to a rural population of 14 million, the expansion of the past few years reflects the growing recognition on the part of

the Egyptian Government of the great credit needs of the country's agriculture. It is hoped that further expansion may be carried out, with more attention to intermediate and long-term lending which, at present, accounts for less than one percent of the loans made by the Bank.

Iran. A State Agricultural and Industrial Bank was established in 1930. Subsequently the Agricultural Bank was set up as a separate entity. Its function is to provide credits for agricultural development, especially for the improvement of tea, cotton and sugarbeet cultivation, and for irrigation. Loans are extended for periods up to 10 years, at rates of interest not exceeding 6 percent. Until recently, the scope of operation of the Bank had been rather restricted. However, the facilities of the Bank were appreciably expanded in 1950, as a result of an authorized increase of 150,000,000 rials in capital to be devoted largely to the establishment of cooperative societies and loans to cultivators for the purchase of farm land.

Iraq. In 1935 an Agricultural and Industrial Bank was created under Government auspices. Regarding the provision of agricultural credit, its functions are largely similar to those of the agricultural banks of Egypt and Iran: extension of short-term loans to finance the movement of crops, and long term loans for the purchase of agricultural implements, for the purchase of livestock, and to facilitate land reclamation. In the past few years, financing has been restricted owing to lack of public funds. Lately, the Bank's capital has been increased and operations are expected to expand in the near future. In particular, to facilitate the purchase of machinery by small farmers, a scheme for installment buying is under consideration.

Turkey. During the past decade, provision of credit for agriculture has been greatly improved. At the end of 1949, the Agricultural Bank had 382 branch offices in various parts of the country. Outstanding credits amounted to a total of TL 337,000,000 about 90 percent of which consisted, however, of short-term production loans. In addition to the Bank, there existed 877 credit cooperatives, with 404,000 members, which extended loans of some TL 30,000,000. The type of loans which these cooperatives are permitted to make, is limited to short-term production and furnishing credits.

The most obvious disadvantage of the present agricultural credit system in Turkey is the inadequate provision of intermediate and long-term credit. To correct this situation, it will be necessary to increase the capital of the Agricultural Bank and to liberalize some of its policies with regard to guarantees required. Furthermore, it should be noted that most of the credit cooperatives are concentrated in western Turkey, there being none in the east. Encouragement of the cooperative movement in this part of the country would seem to deserve special attention in coming years.

In both the Lebanon and Syria plans are under review to increase existing credit facilities. In the latter country, it is intended to raise the capital of the Agricultural Bank and a start has been made in the formation of cooperative credit societies.

It will be clear from the above that, although real progress is being made toward building up a cooperative structure for agricultural credit, many deficiencies still remain to be met. At the beginning of this section reference was made to the existence, in a number of countries, of cooperative marketing societies. It is suggested that in framing policies for the improvement of the financial position of the farmer, special attention be given to the further development of such cooperatives. Experience has shown that marketing societies often confer even greater benefits on the agricultural producer than do the credit institutions. In many countries, a greater drain on the farmer's income than the exorbitant interest charged by the moneylender, is exploitation by the merchant. Moreover, the existence of middlemen in the marketing of agricultural products considerably reduces the return to the producer. Cooperative marketing societies could do much to eliminate such middlemen and secure a fair share of the price to the farmer.

An attempt has been made, in the preceding sections, to outline some of the methods employed by governments to better the social and economic position of the Near East farmer. The account is by no means exhaustive. Examples could be given of measures for raising health standards through prevention and control of endemic diseases, better housing and sanitation, and other improvements. But it is essential, at this point, to restate the real issue which may easily be obscured by this multitude of programs for rural reconstruction, i.e. reform of land tenure. However sound the principles underlying the programs analyzed above, their effectiveness is bound to remain limited as long as the age-old patterns of land tenure continue to prevail. One example out of many should be quoted. Full development of cooperative societies, particularly credit cooperatives, is possible only in areas where the farmers own the land they cultivate, or, at least, hold their farms under agreements providing sufficient security of tenure. Yet, throughout most of the Near East, these conditions are not present, the majority of the cultivators consisting of landless sharecroppers, laborers, or, at best, heavily indebted small owner-farmers. Under the circumstances, many of the potential benefits of a cooperative program cannot be realized.

Of recent years, most countries in the region have manifested some recognition of the land tenure problem, and, in some cases, hesitant attempts at reform have been made such as division of state domains, improvements of tenancy terms and other measures. However, unless and until more comprehensive reform programs are initiated, land tenure will remain one of the chief obstacles impeding agricultural development of the Near East. 22/

22/ See Land Reform, a report prepared by the Secretary General of the United Nations in cooperation with FAO, New York 1951.

CHAPTER 2 - INTERNATIONAL TRADE

A. Prospects for Near East Trade in Food and Agriculture Commodities in 1952/53 - Import Needs and Export Availabilities

The trade targets and estimates discussed in this section are based on the assumption that the levels of production programmed for 1952/53 are, on the whole, attained. Should there be a serious lag in the production plans, export availabilities would be reduced correspondingly, and import requirements increased. Consequently, the data for prospective net import needs and exports availabilities shown in table 11 should be considered as minima and maxima respectively. 23/

Table 11 - Estimated Levels of Near East Net Import Needs and Export Availabilities in 1952/53 Compared with Prewar and Current Years. 1/

(- not exports or export availabilities)

Commodity	Prewar	1946 or 1946/47	1947 or 1947/48	1948 or 1948/49	1949 or 1949/50	1952 or 1952/53
(..... 1,000 metric tons)						
Total grains	487	-414	551	1,020	310	-667
Wheat	45	194	569	1,153	1,160	31
Eye	13	66	9	-	7	-30
Barley	-346	-274	-83	-154	-675	740
Oats	-11	-10	-1	1	1	-
Maize	-2	-14	212	304	118	203
Rice (milled)	-70	236	155	-284	-301	-131
Potatoes	6	-3	-7	-2	15	-13
Pulses	-40	...	...	...	110	-150
Sugar	212	190	224	332	298	343
Fats and Oils	-48	-2	-24	-19	-23	-50
(pure fats content)						
Citrus fruits	-344	-218	-346	-380	-179	-283
Cotton (ginned)	-470	-375	-389	-467	-482	-549
Tobacco	-23	-19	-30	-33	-66	-45

1/ Data for grains except rice and cotton are by trade season (1946/47, etc.). for all other commodities, by calendar years (1946, etc.).

Grains - In the Near East as a whole, a marked shift has taken place in recent years toward greater dependence on grain imports in contrast with

23/ Sources used are mostly the same as those listed in the introductory paragraphs of Chapter 2 A regarding targets and estimates of production. Data for individual countries are included in the Statistical Appendix (with the exception of fats and oils, and pulses, for which only rough estimates could be made for the region as a whole). In the absence of separate data for trade of West and East Pakistan, it has not been possible to analyze current and future trends in trade of the former area in this chapter.

the prewar period when the region was a net exporter. The change is attributable to several factors. In all countries current food requirements are much higher than in prewar years, due to continued high rates of population increase, and in some, food imports are now needed to supplement indigenous production that used to be sufficient to meet requirements. An outstanding example is Egypt where combined imports of wheat and maize - negligible before the war - amounted to some 550,000 tons in 1949/50 and accounted for over two-fifths of the total net imports of these grains into the region. In addition to the increase in requirements of the local populations, unfavourable weather conditions prevailing in several recent years in normally exporting countries such as Iran, Iraq, Syria and Turkey resulted in total or partial crop failures which, in turn, curtailed exportable supplies or even made it necessary to import substantial quantities to maintain domestic consumption at a minimum level.

Future prospects with regard to grain movements to and from the region appear uncertain. Targets and estimates for 1952/53 suggest that the Near East may revert to its prewar position as a net exporter of grains.

Details of the 1952/53 picture for individual grains which will emerge if targets and estimates are met are noted below:

Wheat - Virtually complete self-sufficiency of the region, as in the prewar period, owing to a prospective increase in export availabilities in Iraq, Syria and Turkey, in accordance with current production programs and trends, the resumption by Iran of small-scale exports traditional in prewar years, the resultant increase in exportable supplies offsetting expanding import requirements of countries like Egypt.

Barley - A net surplus of roughly three quarters of a million tons or double the region's net exports in prewar years as a result of projected increases in production in Iran, Iraq and, to a lesser extent, in Syria and Turkey.

Maize - A net deficit of some 200,000 tons, representing essentially Egypt's increased import needs, as compared with self-sufficiency before the war.

Rice - A net surplus of around 130,000 tons or about double the region's prewar exports, reflecting higher export supplies in Egypt (though only half its actual exports in 1948/49 and 1949/50) and in Iran.

Other grains - (millets and sorghums, rye, oats) -
No significant changes in trade from either prewar or postwar levels.

On balance, the Near East would thus show a net grain surplus of close to 700,000 tons in 1952/53. It is, however, necessary to emphasize the tentative nature of this estimate, and its dependence on satisfactory fulfillment of plans.

As illustrated by the data included in Table 11, trade in grains has shown considerable fluctuations in recent years, net imports into the region rising from 550,000 tons in 1947/48 to 1,000,000 tons in 1948/49 and falling to 300,000 tons in 1949/50. The magnitude of these fluctuations suggests that in a bad crop year the apparent net surplus anticipated for 1952/53 may easily be eliminated or changed into a net deficit.

Moreover, the estimate of net exportable supplies refers to the excess of production over domestic requirements. It does not follow that the quantities shown will actually be moving into international trade. Several countries in the Near East faced in the past few years with acute supply shortages, are now taking steps to expand storage facilities for carrying over, from one year to the other, part of their surpluses to provide insurance against future crop failures. As construction of such storage facilities is completed, the immediate effect may be a temporary decline in export availabilities.

Potatoes - Small export surpluses are expected in 1952/53, chiefly in Cyprus and Lebanon, traditional exporters of potatoes, and in Egypt where output has been expanding rapidly in postwar years.

Pulses - Currently the two main exporters of pulses^{24/} in the Near East are Ethiopia and Turkey. Official targets for the latter country suggest some increase in exportable supplies by 1952/53. In Ethiopia exports may not exceed the present level unless demand in Near East markets increases. However, present indications are for somewhat lower consumption levels of pulses in a number of countries. The nutritional implications of this trend are discussed in Chapter 3.

Sugar - Increasing consumer demand for sugar is reflected not only in the substantial increase in the region's output since the end of the war and the further expansion programmed for the next few years, but also in the appreciable rise in imports which in 1948 and 1949 were approximately one third higher than prewar. The upward trend is expected to continue through 1952/53, the anticipated increase being about evenly distributed over the various importing countries.

Fats and Oils - The upward trend since the war in net exports of fats and oils, including oil equivalent of oil seeds, from the Near East, is likely to continue. Net exports of cotton seed and cotton seed oil should rise as a result of the programmed expansion in cotton production. Ethiopian exports of oil seeds show a strong upward trend. There are also possibilities of increased exports of linseed and sunflower seed from Turkey.

Partly offsetting increases in oil seed production and expansion in exportable supplies, consumption of fats and oils in the Near East is apparently rising with increasing population and industrialization. For example, Egypt, which was a net exporter before the war, is now a net importer of fats and oils.

^{24/} Includes dry peas and beans, broad beans, chickpeas and lentils.

Citrus fruits - Export availabilities may show some increase in Cyprus and Lebanon but no major expansion is anticipated owing to marketing difficulties experienced by these countries in current years. For the Near East as a whole, export supplies should remain below the prewar level due, mainly, to the disruption in output caused by the Palestine conflict.

Cotton - The significant expansion anticipated in cotton output is reflected in the targets and estimates of export availabilities in 1952/53. Total exportable supplies are expected to amount to at least 550,000 tons, an increase of about one-sixth over the prewar level. Prospective exports from Egypt and the Sudan should account for more than nine-tenths of the total, the balance consisting of supplies from Iran, Iraq, Syria and Turkey (14).

Tobacco - Official targets for Turkey suggest some reduction in 1952/53 exportable supplies in comparison with 1949 record exports, in line with the programmed stabilization of tobacco output at current levels. Total Near East exports in 1952/53 are estimated to reach 45,000 tons or double the prewar average.

To complete the above review of Near East trade in 1952/53, in terms of deficits and surpluses of major food and agriculture products, mention should also be made of such commodities as fresh fruits and vegetables, dried fruits, nuts, dates, livestock and livestock products. However, available information is inadequate to discuss future trends in trade in these commodities in any detail. Their importance in the external trade of a number of Near East countries is examined later.

On the whole, it would seem that with regard to volume and composition of its food and agriculture trade in 1952/53, the Near East will find itself in a position which, in many respects, is similar to that of prewar years. On the one hand, the region will still be faced with the risk of grain shortages in bad crop years alternating with limited surpluses in good years; the margin between deficit and oversupply continuing to be slim throughout most of the area. On the other hand, traditional Near East exports of cotton, oil seeds and oils, fresh and dried fruits, dates, vegetables, and tobacco are likely to be maintained in quantities somewhat in excess of prewar levels and capable of further increase as production is expanded. To understand fully the significance of this trade pattern it is advisable briefly to review the overall trade and balance of payments situation of the Near East during the last few years, and the part played in it by agricultural products.

B. Foreign Trade and Balance of Payments

Current trends in Near East imports and exports (expressed in terms of U.S. dollars) are summarized in Table 12.

Incomplete data for 1950 indicate a decrease in import and an increase in export values relative to previous years. As a result the region shows a small export surplus for the first time since the end of the war. It should be noted, however, that the data for exports include exports of petroleum products. Near East merchandise trade excluding oil in 1950 still shows a substantial deficit. 25/

25/ The magnitude of this deficit can only be determined at a later date when more detailed trade figures will be available.

Table 12- Foreign Trade of Near East Countries

	<u>Exports (f.o.b.)</u>			<u>Imports (c.i.f.)</u>		
	1948	1949	1950	1948	1949	1950
	(..... In millions of United States dollars)					
Anglo-Egyptian Sudan	59	110	93	92	90	74
Cyprus	23	30	31 ^{1/}	62	41	37 ^{1/}
Egypt	591	516	503	663	664	590
Ethiopia	34	29	25 ^{2/}	42	36	31 ^{2/}
Iran	589	536	701	169	286	262
Iraq	81	91	118 ^{1/}	183	148	105 ^{1/}
Lebanon ^{3/}	36	51	42	213	235	211
Turkey	197	248	263	275	290	286
Other	455	460	450 ^{4/}	635	725	500 ^{4/}
Total Near East	2105	2071	2226	2334	2515	2196

^{1/} Latest 12 month total ending November.

^{2/} Latest 12 month total ending June.

^{3/} Prior to March 1950, Syria and Lebanon.

^{4/} Latest 12 month total ending September.

Source: International Monetary Fund, International Financial Statistics, April 1951.

The dollar value figures shown in table 12 are strongly influenced by changes in exchange rates during 1949 and 1950. Cyprus, Iraq and Jordan as members of the sterling area devalued at the same rate as the Pound Sterling and Egypt followed suit. Syria and Lebanon made the free exchange rate applicable to all foreign trade transactions, which amounted to a somewhat milder devaluation, and Iran modified its exchange regulations in July 1950. Since about half the dollar value of the region's exports is affected by devaluation, the volume of exports, in comparison with 1949, increased rather more than the value figures suggest.

The increase in export values is almost entirely due to higher exports of Egyptian cotton to the U.S., and of crude oil to the U.K. Import values declined, particularly those from the U.S. Moreover, restrictions on the use of sterling balances limited sterling availabilities in many countries of the region.

At the regional level Near East trade suffered from continuing impediments like the disruption in traditional trade patterns of certain countries following the Palestine conflict, cessation of the customs union between Syria and Lebanon and repercussions of the Kashmir conflict on Afghan trade. As a result, the proportion of intra-regional to total trade has been seriously reduced in recent years.

Recent balance of payments data are available for a limited number of Near East countries only and, consequently, the construction of a balance of payments for the region as a whole is impractical. ^{26/} It would appear that for the Near East as a whole, the following items show a net loss of foreign exchange: merchandise trade, excluding oil, accounts for the greater part of the deficit; imports of non-monetary gold, payments for freight and insurance, since both these services are mainly supplied by foreign countries; and investment payments on capital invested in the region. On the other hand, the region has a net gain of foreign exchange from petroleum activities and pilgrim and tourist expenditure.

In individual countries balance of payments deficits are closed in different ways. In Turkey, the 1950 deficits in trade and invisibles (particularly freight) are covered by U.S. loans and grants, chiefly under E.R.P. In recent years, Turkey's shortage of sterling has been more acute than its shortage of dollars. In Egypt, deficits are financed partly by drawings on sterling balances acquired during the war. Such sterling is, of course, only usable within the sterling area apart from relatively small amounts (£ 5 million in 1949) which are convertible. The improvement in Egypt's balance of trade with the U.S. from a \$42 million deficit in 1949 to a \$22 million surplus in 1950 has largely removed the pressure of dollar shortage. Iraq meets its current large import surpluses partly from royalties and other expenditures by the oil companies; the rest is chiefly provided out of drawings on sterling balances and investments of oil companies. Iran's deficits are met almost entirely by royalties and other revenue from oil, and a similar situation prevails in the oil producing states of the Arabian peninsula. In Saudi Arabia expenditures of pilgrims are an additional source of revenue. In Lebanon and Syria, tourist expenditures and profits on transit trade in merchandise and gold, as well as remittances from emigrants, expenditures by the oil companies and payments by relief agencies finance part of the import surplus; the remainder is met by drawings on accumulated franc balances.

In general, Near East countries have been successful, in the past few years, in mobilizing adequate resources of foreign exchange to close the substantial gaps arising from import surpluses and other deficit items in their balance of payments. From a general economic viewpoint, however, the situation appears less satisfactory.

Currently, the exchange receipts of most Near East countries are largely devoted to financing consumer imports, and only a minor part of the resources available from oil royalties and wartime accumulated sterling reserves is diverted for capital purposes. For example, with few exceptions, imports of machinery and transport equipment expressed as a percentage of total imports, show only limited gains over the prewar level: 17 percent in 1949 as against 13 percent in 1938 in Egypt; 28 percent as against 23 percent in Turkey; virtually no change in 1948 as compared with prewar, in Iraq. ^{27/} In most of these and other instances, the expansion in capital imports appears low relative to the improvement in the amount of foreign exchange available. It should be recognized, of course, that the emphasis on consumer imports is only partly attributable to the demand for luxury and semi-luxury goods which remained largely unsatisfied during the war and immediate postwar period. Other factors have to be considered as well, such as acute food shortage due to local crop

^{26/} The following analysis is partly based on Review of Economic Conditions in the Middle East, issued as a section of the preliminary version of World Economic Report, 1949-50, United Nations, 31 January 1951.

^{27/} See Review of Economic Conditions, Table 37.

failures in recent years ^{28/} and, more basically, the disequilibrium between population and resources which has become increasingly evident since the end of the war. In Egypt, for instance, the relative value of imports of grains and milled products rose from 0.7 percent in 1938 to over 10 percent in 1949. From whatever point of view the region's position is envisaged, the urgency of expanding food and agricultural production throughout the Near East is obvious.

Outlook - Future trends in the region's balance of payments are difficult to assess in view of the uncertainty of the international situation. Intensification of rearmament programs in various parts of the world is likely to lead to expanding demand for petroleum and other export commodities such as cotton, and there may be some further improvement in the terms of trade for a number of countries. In addition, unspent sterling balances (estimated at £ 400 million approximately) represent a potential foreign buying power of considerable magnitude. Their utilization depends, however, on the availability of export goods from the U.K. and other countries of the sterling area. On the other hand, private investments (outside the oil industry) will probably remain at a rather low level while international tension persists.

Near East exports of agricultural products will continue to be a major source of foreign exchange. Their vital importance to the economy of the region is illustrated by Table 13 which shows for a number of countries the percentage value of one or more significant export commodities in relation to total exports.

It seems unlikely that there will be substantial changes, over the next few years, in the relative position of these commodities in the region's external trade balance. However, as industrialization progresses, some diversification of exports may be expected in the longer run.

Import demand is likely to continue high, and especially in countries where general development programs are in progress, import requirements of certain foodstuffs may increase in the short run. In the longer run, to the extent that the agricultural programs become operative, they will increase the self-sufficiency of the region with regard to foodstuffs.

To accelerate the rate of implementation of these development programs, however, it will be necessary for governments to divert at least part of their foreign exchange earnings to capital imports. In most cases, this will involve curtailing or eliminating imports of luxury and semi-luxury goods, a sacrifice that will have to be accepted in each country by the relatively small class of the wealthy for the economic welfare of the community as a whole.

C. Near East Exports and International Markets

The international situation with regard to markets for food and agricultural commodities was reviewed in a recent FAO statement on Current Situation and Prospects of Food and Agriculture prepared for the Twelfth Session of the FAO Council which met in Rome in June 1951. A more comprehensive document, the State of Food and Agriculture, Review and Outlook 1951, has been prepared for consideration at the Sixth Session of the FAO Conference in November 1951. The following paragraphs include some of the findings of these reports regarding recent trends in prices of food and agricultural commodities in world trade and the short term market prospects, particularly for Near East export commodities.

Price trends

Following the Korean outbreak and the subsequent expanding rearmament programs in the United States and Europe, prices reacted sharply, showing a marked upward trend in all regions of the world. Prices of major food commodities in world trade increased on the average almost 20 percent from June 1950 to March 1951 even though wheat generally showed little price change from a year ago; prices of non-food agricultural commodities, such as cotton, wool, etc., increased on the average more than 50 percent. Prices of finished products also advanced,

^{28/} In Turkey, the value of imports of grains and milled products, negligible in normal years, accounted for 5 percent of total imports in 1949 when grain harvests were far below average.

Table 13.- Near East: Relative Value of Major Exports of
Certain Countries, Pre-war and Post-war. 1/

Country	Pre-war		Post-war	
	Commodity and year	As percentage of total value of exports	Commodity and year	As percentage of total value of exports
Afghanistan			1947/48	
			Persian lambskin	54.6
			Fruits and nuts	35.5
			Total	90.1
Anglo-Egyptian Sudan	1938		1949	
	Raw cotton	62.4	Raw cotton	69.3
	Gum arabic	12.1	Cotton seeds	7.6
	Total	74.5	Total	76.9
Egypt	1938		1949	
	Raw cotton	75.5	Raw cotton	78.1
	Cotton seed	4.8	Rice	10.6
	Total	80.3	Total	88.7
Iran	1937/38		1948/49	
	Carpets	15.6	Carpets	31.0
	Fruits and nuts	13.3	Fruits and nuts	24.1
	Total	28.9	Total	55.1
Iraq	1938		1947	
	Grains, pulses and flour	33.4	Grains, pulses and flour	49.7
	Dates	25.5	Dates	34.1
	Total	58.9	Total	83.8
Lebanon and Syria	1938		1949	
	Vegetables	13.3	Cereals and milled products	36.3
	Fruits	13.1	Rayon textiles	9.3
	Total	26.4	Total	45.6
Turkey	1938		1949	
	Tobacco	27.1	Tobacco	37.4
	Fruits and nuts	25.8	Fruits and nuts	16.5
	Total	52.9	Total	53.9

1/ Only the two major exports, by value, have been given for each country.
Petroleum exports of major oil-producing countries have been excluded.

Source: Review of Economic Conditions in the Middle East.

Compiled from official foreign trade statistics of the individual
countries by the Statistical Office of the United Nations.

but less markedly. The result has been an improvement in the terms of trade in the raw material exporting countries. In the second quarter of 1951, as purchases for government stock piles, building up of commercial inventories and also speculative operations were either suspended or diminished, price levels stopped advancing and even slackened in some cases.

The Market Situation for Selected Commodities.

Subject to availability of exportable supplies, immediate prospects for grain exports from the region are favorable since traditional Near East markets in adjoining areas can continue to import in large volumes. Future conditions for barley seem to be especially good in view of the continued heavy world demand for coarse grains.

Regarding rice, it is likely that demand will continue strong, provided Near East exports are made on the basis of competitive international prices.

The upward movement in 1950 in world market prices of fats, oils and oilseeds reached its peak in April 1951. Afterwards, in view of prospects for large oilseed crops in 1951, prices showed appreciable declines. Demand for industrial use and consumption as food is expected to continue strong in the principal world markets and may increase, in particular in countries belonging to the "rearmament area".

The short term outlook for the export disposal of cotton crops of Near East countries depends, to a considerable extent, on how speedily cotton prices in those countries adjust themselves downwards to the world prices. During 1950/51 they commanded a premium over the United States selling price for cotton, exports from the United States being restricted. The availability of a much larger United States crop, the issue of advance export allocations against it and the emergence of a futures price at a discount on the selling price suggest the changed conditions under which Near East cotton crops are likely to be marketed.

The considerable reduction in 1950 as compared with 1949 in Turkish tobacco exports has caused some concern among local growers. The short term outlook is for some improvement in export possibilities owing to the recent trade agreement concluded between Turkey and the Federal Republic of Germany for the period 1951-53. Moreover, the United States has been taking appreciable quantities of oriental tobacco for blending, mainly from Turkey but also from Syria. The outlook for the longer run remains uncertain, however, especially since demand in the European market has shifted since the war to some extent from oriental tobacco in favour of the light Virginian types.

The European market, which is the main outlet for the region's citrus exports, can easily absorb greater quantities of citrus from soft currency countries. However, with the increasing supplies from Spain and North Africa, competition is getting very strong. Prices are likely to decrease from the high 1950 level and high cost producers may well find difficulties in marketing their surpluses.

The short supplies of dried fruits in all exporting regions in the last few years have brought an increase in prices which can hardly be maintained with more normal supplies. Average consumption of dried fruit seems to be declining in Western Europe, and increasing supplies of fresh fruit may further weaken the demand.

In conclusion, two additional points should be noted. Immediate prospects for marketing Near East products outside the region are, on the whole, not unfavorable and could be greatly improved provided that (a) prices are competitive, and (b) there exists effective control of the quality of the commodities to be exported.

The Near East is exposed to price and demand fluctuations in world markets, but cannot control such movements since most of its typical commodities account for a relatively small percentage of world trade. For the region to maintain and strengthen its position in world trade, it will be necessary to give greater attention to possibilities of lowering prices through cutting down on cost of production, transport and handling of the major export crops. Only thus will it be possible to absorb any fluctuations that may occur in foreign market demand without inflicting undue hardships on the local cultivators.

The competitive position of the Near East could also be materially improved by the institution and operation of additional services to control the quality of major export commodities. Experience in countries like Egypt, Iraq and Turkey has shown that substantial benefits may be obtained in this manner. As export surpluses from other regions expand, foreign buyers are likely to establish more exacting standards regarding quality, grading, packing, etc. To enable Near East exporters to meet such standards, it may be advisable for governments themselves to give attention to this matter and to promote and give effective support to any initiative taken in this connection on the part of private growers and agricultural cooperatives.

CHAPTER 3 - FOOD CONSUMPTION AND NUTRITION

Food Policy and Nutrition

The need to orient national food and agricultural policies and programs towards fulfilling the nutritional requirements of the population concerned is now widely recognized. However, in most countries of the region, the importance of this aspect of national food policy is not as yet adequately realized, and generally little account is taken of nutritional principles in establishing food policies. An example of this is the tendency to base agriculture production plans solely on export considerations without due regard to the nutritional needs of the people.

It is essential that all authorities concerned with food policies should be aware of the importance of nutrition in planning the production and distribution of foodstuffs. In this connection, it should be emphasized that improvement in nutrition depends not only on agricultural development but also on the equitable distribution of food supplies so that all sections of the population can obtain a better diet.

The first step in achieving these objectives is the establishment for each country of food consumption targets based on nutritional principles in order to facilitate the gradual orientation of food and agricultural plans in their direction. Before this task can be undertaken, however, some basic information on the present situation regarding food consumption and nutritional status is needed.

Current Food and Nutritional Situation.

Examination of the total food supplies available for human consumption in each country helps to clarify the general situation. It is advisable, therefore, to make annual studies of national average consumption levels on the basis of food balance sheets, but data on food supplies in this region are often unsatisfactory or even totally lacking. It is possible, however, to estimate the food supplies available in some countries. Data relating to the supplies available in seven countries, (comprising almost two-thirds of the population of the region) are summarized in tables 14 and 15. Table 14 indicates the per caput annual supplies of foodstuffs available for human consumption at the retail level in categories representing the major food groups. It includes data for prewar and the most recent postwar years as well as the estimated levels for 1952/53. In table 15 the energy and protein content of the same food supplies are expressed on a per caput per diem basis.

The tables show that the food supplies are generally not satisfactory in most of the countries. In some the calorie levels seem to conform with the average requirements of the populations, but in others they fall below requirements. In the latter countries, therefore, an increase in the quantity of food supplies should take precedence over improvement in quality. In regard to quality, supplies are defective in most of the countries as they consist mainly of foods which may be described as "energy producing" and are deficient in "protective" foods of high nutritive value. Average diets in the region, therefore, are unbalanced from the nutritional standpoint and malnutrition, the character of which varies in accordance with local conditions, is widely prevalent.

It should be emphasized here that the tables indicate only the average supplies available per head of the population and do not represent the actual food intakes of either individuals or of different sections of the population. Moreover, when food supplies are inadequate, it is to be expected that the inequalities which occur in their distribution among different sections of the population, will result in significantly lower food intakes among the poorer sections. In this respect it is significant to note that the low levels of income and purchasing power which prevail among large sections of the populations in this region, make it almost impossible to obtain satisfactory diets for them. Under these circumstances, the disastrous effects of any further deterioration in their economic levels can be readily appreciated.

Table 14 - Food Supplies Available for Human Consumption in Some Near East Countries
Prewar, Postwar and Estimated 1952/53 1/

	Cereals	Roots and Tubers	Pulses and Nuts	Sugar	Fats and Oils	Meat	Eggs	Fish	Milk and Cheese	Vegetables	Fruits
						(Kilograms per capita per year at the retail level)					
<u>Cyprus</u>											
1934-38	162.3	20.7	10.7	9.1	6.9	12.1	2.0	2.8	96.1	26.1	52.2
1946-49	174.1	30.4	12.2	8.3	7.8	17.4	2.0	4.4	95.0	25.1	63.8
1952/53	167.6	44.9	11.4	10.2	10.6	17.4	2.0	4.4	102.0	26.0	63.8
<u>Egypt</u>											
1934-38	182.1	4.7	21.2	10.1	2.8	10.5	1.7	3.0	55.2	33.3	35.8
1946-49	173.7	9.8	12.7	11.2	3.1	9.7	0.9	3.1	54.7	57.5	35.5
1952/53	179.2	11.1	12.1	14.0	4.5	9.7	0.9	3.2	61.4	(57.5)	42.3
<u>Iran</u>											
1934-38	161.8	1.5	8.9	5.3	1.2	12.4	2.5	1.0	92.9	42.9	74.6
1946-49	144.2	1.2	8.1	6.3	0.9	9.9	2.1	1.0	83.7	40.2	(75.0)
1952/53	156.2	1.5	6.7	6.7	1.3	10.0	2.1	1.0	79.9	(40.2)	(75.0)
<u>Iraq</u>											
1934-38	178.0	1.6	7.6	9.7	3.1	9.2	2.6	3.0	82.5	47.1	53.1
1946-49	148.1	2.6	8.8	11.8	2.0	9.2	2.6	3.0	78.4	47.1	53.1
1952/53	138.6	4.4	8.8	11.4	2.1	9.2	2.6	3.0	78.4	47.1	53.1
<u>Turkey</u>											
1934-38	190.9	3.3	8.3	4.6	2.7	21.5	3.1	1.0	150.6	52.5	98.4
1946-49	177.0	8.5	6.7	6.2	3.0	18.5	2.0	1.1	141.3	65.0	120.0
1952/53	201.5	11.4	7.4	6.9	3.7	20.9	2.1	1.1	140.7	67.5	125.0
<u>Syria and Lebanon</u>											
1934-38	143.9	5.7	7.1	7.8	2.6	10.6	1.6	1.0	101.4	47.2	(150.0)
1946-49	128.4	6.7	14.7	6.5	5.5	7.9	1.6	1.0	85.7	56.5	(150.0)
Syr. 1952/53	152.6	7.2	12.9	8.5	6.4	5.1	1.3	1.0	80.0	(54.0)	(145.0)
Leb. 1952/53	117.8	20.8	8.5	11.5	9.2	16.5	3.0	1.0	105.0	(70.0)	(175.0)

1/ Figures are approximations and indicate merely the order of magnitude of the consumption levels.

Table 15 - Calorie and Protein Content of Food Supplies
Available for Human Consumption in Some Near East Countries

	<u>Calories</u>	<u>Protein</u> (grams)	
		Animal	Total
		(per caput per diem at retail level)	
<u>Cyprus</u>			
1934-38	2345	10.9	65.1
1946-49	2483	13.9	70.7
1952/53	2542	14.3	69.6
<u>Egypt</u>			
1934-38	2411	12.2	76.4
1946-49	2294	11.6	69.4
1952/53	2433	12.4	71.5
<u>Iran</u>			
1934-38	2010	9.9	64.4
1946-49	1811	8.6	57.4
1952/53	1920	8.4	60.0
<u>Iraq</u>			
1934-38	2224	9.9	68.5
1946-49	1942	9.7	61.2
1952/53	2140	9.7	67.2
<u>Turkey</u>			
1934-38	2594	26.0	90.8
1946-49	2475	23.5	84.0
1952/53	2763	24.3	92.3
<u>Syria and Lebanon</u>			
1934-38	1993	10.2	60.2
1946-49	1945	8.4	58.9
Syr. 1952/53	2176	6.9	63.3
Leb. 1952/53	2069	13.2	58.4

Information on the actual food intake of sections of the population and its effect on nutritional status can be obtained by means of special surveys but, except in Egypt, no systematic surveys have been carried out in any country of the region. In fact, nutrition activities or organizations in the proper sense of the word, do not now exist in most countries. However, available information from a few countries supports the broad conclusions reached by study of the average food supplies. For instance, surveys of the diet and nutritional status of the Egyptian population show that observed calorie intakes of specific groups correspond reasonably well both with the national average levels indicated by the food balance sheets and with the requirements levels calculated according to the suggestions of the FAO Expert Committee on Calorie Requirements. The intake of total protein seems to be adequate but that of high quality protein is comparatively low. The diets are unbalanced and do not contain enough "protective foods", especially foods of animal origin, which are also rich sources of essential vitamins and minerals. In such circumstances, the most prominent need is to improve the quality of the diet by increasing the supplies of the more nutritious foods which are now in short supply. This need is also indicated by the presence of certain deficiency diseases, such as pellagra and rickets, which was revealed by the surveys among both urban and rural groups. Though an extended program of surveys is required to provide a clearer picture, it is likely that more malnutrition will be found among poor urban families than among similar families in the more productive rural areas in Egypt, because the latter have greater opportunities of supplementing their diet with vegetables and other foods. The fact that the situation is not necessarily the same in other areas is shown by a few surveys in Iraq. It has been reported that the diets in some tribal areas are unbalanced nutritionally, whereas the diets of a group of urban people were better balanced. Apart from these few surveys, practically no detailed information is available regarding the diet and state of nutrition in this region. Such surveys should be given a high priority among future activities in the field of nutrition.

Nutritionally Desirable Goals for Food Consumption

When the major defects of the present food supplies and diets are known, the next step is to consider ways and means of correcting these defects. In order to do this effectively, satisfactory food consumption goals or targets based on nutritional requirements must be set up; the science of nutrition has progressed to a stage at which human requirements of calories and nutrients are at least tentatively known. Such goals are, however, easier to establish on paper than to attain in practice, and their attainment in the near future is impossible in many countries in the region. It is, therefore, necessary to set up for each country realistic "intermediate" targets which are attainable within a reasonable period of time and are within the scope of its resources. FAO is now attempting to design such tentative targets for 1960, taking into account nutritional, agricultural and other relevant factors in the different countries for which some basic information is available. It is proposed to discuss these targets with individual delegations at the meeting in the hope that they will be examined later by their national experts in relation to nutrition, agriculture and the general economy and that they will eventually form the basis of plans and programs relating to food supply and production.

Changes in Food Consumption by 1952/53

It will be useful to consider here certain nutritional aspects of the estimated levels of food supplies for the near future, that is, in 1952/53, as indicated by the present plans or expectations of the governments concerned (see tables 14 and 15). Assuming that the estimated levels for 1952/53 will be actually realized, certain significant features of the resultant situation are noteworthy. Recent calorie levels, which are still below those of prewar years in most countries, would improve in some to such an extent that the prewar levels would be attained and even surpassed, as in Cyprus, Egypt and Turkey. On the other hand, there are at least two countries, namely Iran and Iraq, where the situation would be different. Significant increases in calorie levels are

foreseen in these countries, but not enough to bring their present levels back to the already low levels of the prewar period. A somewhat parallel situation may exist in relation to the levels of protein supplies. Total protein supplies in a few countries, e.g. Cyprus and Turkey, would exceed the levels of the prewar period. In others, however, they would remain below the prewar levels in spite of the expected improvements. The situation regarding animal protein would be similar, or perhaps slightly less satisfactory. In this respect it is important to note that the per-caput supplies for pulses and nuts, which are good sources of vegetable protein, may not be increased in most of the countries to any appreciable extent.

Having examined the general trends in consumption levels in the near future, it may now be advisable to consider their effects on the nutritional value of the estimated food supplies and various ways for possible improvement. Where the calorie levels are low, e.g. as in Iran and Iraq, the first consideration should obviously be to raise them quickly by increasing supplies of "energy-producing" foods such as: cereals, fats and pulses. This desirable trend is indeed evident in countries in this position, but greater emphasis on pulses would be desirable since they are rich in protein and other nutrients. On the other hand, improvement in the quality and variety of food supplies is to be preferred to a general increase in calorie levels when the latter are reasonably adequate. In such cases, e.g. as in Turkey, plans should be reviewed so that the expected increases in supplies will be in the form of more nutritious foods. The estimates also reveal that in many cases there is a tendency to increase supplies of roots and tubers with a simultaneous reduction in those of cereals and pulses. This is undesirable from the nutritional standpoint because of the poor protein content of starchy roots.

Next to the fulfilment of minimum calorie needs which is of primary importance, the need is to increase the supplies of those foods which will help correct the major defects in national diets. Foods of animal origin are of special importance in this connection because they are very rich in essential vitamins, minerals and good quality protein. The difficulty of providing such foods in adequate quantities for all sections of the population is formidable in a region where low economic levels prevail among a large proportion of the people, and agricultural resources are limited. Nevertheless, the countries in this region should aim at targets which will increase the supplies of such foods as much as practicable under the circumstances. The first priority among animal foods should be given to milk in view of its exceptional nutritive value and its special importance in child nutrition. Although it is gratifying to observe a desirable trend to increase milk supplies in many countries, there are a few in which an opposite trend is perceptible. In spite of the special nutritional importance of animal foods, it is also necessary to concentrate on the production of "protective" foods of vegetable origin for the reason already explained, that is, the high prices of animal foods which are usually beyond the means of the poorer classes. The importance of pulses has been referred to earlier in this section. Although statistics are extremely inadequate, it is evident that higher intakes of vegetables and fruits are also important in view of their value in supplementing average diets in this region. There is often considerable possibility of increasing rapidly the domestic production of vegetables. Increasing fruit supplies, however, is slower and more difficult.

Special Food Distribution Programs

As pointed out earlier, the actual food supplies reaching the poorer sections of the population will be considerably lower than those indicated by the national averages of the available supplies. Moreover, there are other factors, such as poor distribution facilities, which will cause further inequalities in their distribution in different areas within the same country. So long as these factors continue to operate and total supplies are also inadequate, it will be necessary to safeguard the interests of the nutritionally vulnerable groups of the population. This can be achieved largely through special feeding programs. For instance, expectant and lactating mothers as

well as infants can be provided with milk or other supplementary foods through maternity and child welfare centres; while school-going children can be provided with nutritious meals through school feeding schemes. The most difficult group to reach is the pre-school age group of 1 - 5 years which is often the most mal-nourished group in the population. Industrial workers are another group whose nutrition is of obvious importance to the national economy. It can be improved by the provision of extra food through industrial canteens.

Though there is considerable scope for raising the nutritional levels of important sections of the populations through such programs, very little is being done now in Near East countries. Egypt is an exception. School feeding has been developed in this country into a national program under the statutory responsibility of the Ministry of Education since 1943. It is reported that, during the year 1947/48, meals were provided to 902,000 children in elementary schools and, of these, 704,000 received the meals free of cost. Moreover, nearly 200,000 older children in other schools received meals, the cost of which was partly or wholly borne by their parents. While small schemes of this nature are reported to be in operation in a few other countries, they have not been developed anywhere else on a significant scale. The situation with regard to feeding programs for other groups appears to be similar or even more disappointing.

In connection with special feeding programs in the region, the feeding of refugees has received considerable attention during the last few years. A rapid survey of the food prospects and nutritional situation in Arab Palestine and other Near East countries was made by FAO in September 1948 in response to a request from the Mission of the United Nations Mediator for Palestine. This survey provided the basis for the relief project of the United Nations so far as food was concerned. Subsequently FAO conducted a nutritional survey among refugee children in the Gaza area. This work was followed up by further visits in June 1949 in order to review the nutritional status of the refugees.

Nutrition Activities and Organizations

The foregoing discussion indicates a number of measures which governments can take to improve the diet of their populations. None of these, however, can be developed effectively without the necessary organization, both administrative and technical. Nutrition workers, nutrition laboratories, advisory groups, etc. are needed to develop satisfactory programs. It is here that serious obstacles will be encountered, because in most countries of the region facilities for work in the field of nutrition are practically non-existent, and there is, as yet, little realization of the need for improving the nutrition of the people. Some encouraging signs may, however, be noted. The most significant of these is the recent Nutrition Training Course which was organized in Cairo in 1950 under the joint sponsorship of FAO, WHO and the Government of Egypt. Thirty-six candidates from nine countries in the region received basic training in the theoretical as well as the practical aspects in the science of nutrition. These workers should now be able to help in initiating and stimulating nutritional activities in their respective countries. It must be emphasized, however, that they can do little without the full support of their governments. The improvement of nutrition is essential to the welfare of the people and, as such, is a government responsibility.

Another significant sign is the importance given to nutrition by the Second United Nations Social Welfare Seminar which was held in Cairo at the same time as the Nutrition Course. The Nutrition Sub-Committee of the Seminar, which was also attended by the trainees at the Nutrition Course, prepared a report containing a number of practical recommendations for short-term nutritional programs. Since the minimum personnel needed for initiating such programs is now available, it is hoped that the governments concerned will proceed with all the means and facilities at their disposal.

Coordination of Activities

The task of raising levels of food consumption and nutrition involves simultaneous advances on several fronts. It is, therefore, of great importance that nutrition activities should be coordinated with other governmental programs relating to health and welfare in general. In order to achieve this, a national nutrition organization, consisting of official and non-official authorities in the field of nutrition, agriculture, health, social welfare, economics, etc. should be established in each country. One of the major functions of this organization should be to ensure that food production policies are designed to fulfill the nutritional needs of the population.

It is hoped that each delegation will come to the meeting prepared to discuss the nutritional and other aspects of the food and agricultural programs which they plan to develop during the next few years.

PART III

SUMMARY OF BASIC FINDINGS - QUESTIONS AND ISSUES FOR GOVERNMENT CONSIDERATION

1. Scope of Working Paper This Working Paper deals with the prospective development of food and agriculture in the Near East in the years immediately ahead, with particular reference to 1952/53. The appraisal is made in "dynamic" rather than "static" terms - in other words, special attention is given to defining the changes in the pattern of production, trade and consumption as arising or likely to arise, from the execution of agricultural development programs and projects now in effect or under consideration in most of the region.

These changes are part of the general process of transformation which, for several decades, has been slowly pervading the entire economic and social structure of the Near East. While it is likely to be accelerated in coming years as developmental activities in the various sectors of the economy are intensified, the persistence - and the delaying effect on the rate of development - of such basic weaknesses as inadequate tenure systems, primitive cultivation methods, rural poverty with its concomitants of ignorance and disease, cannot be over emphasized.

2. National and Inter-governmental Action on Food and Agricultural Programs The summary of conclusions contained in the following paragraphs indicates the type of measures initiated by many governments in the Near East with regard to economic advancement, especially the development of food and agriculture resources. Attention is also drawn to possibilities for accelerating the implementation of existing programs and remedying deficiencies by broadening the scope or adjusting the objective of programs already under way. Decisions in this respect are essentially the responsibility of national governments and subsequent action will mostly be at the national rather than the international level. However, the analysis of current developments and prospects of agriculture in the Near East brings out a number of issues on which inter-governmental arrangements need to be made. To quote but a few instances, there are: river valley development; control of plant disease and field pests, particularly locust; animal disease control; coordination of research and pooling of expert knowledge and research facilities; expansion of trade between countries in the region and with the rest of the world.

It is hoped that discussions at the Meeting will help in defining action that can be taken by governments, either jointly or severally.

3. Assistance by FAO to Member Governments The Meeting may wish to consider:

The fields in which FAO could be most effective in rendering assistance in the implementation of current plans and programs for food and agricultural development.

The means and methods by which this can be done are, briefly:

First: With the help of Governments more complete and detailed information can be assembled on particular phases of food and agricultural expansion, on obstacles to be overcome, methods to be adopted and on experience gained in other countries. This information can then be placed at the disposal of Member Governments and help provide guidance in framing future policy.

Second: Visits of experts can be organized in order to appraise the actual programs carried out and make suggestions with a view to improving the functioning and efficiency of the work. Such visits could be either brief or in the nature of longer-term assignments.

Third: Periodic meetings of specialists could be arranged for the exchange of experiences in different countries, the results obtained and the difficulties encountered. In this way the experience gained by each country would be of benefit to all, and much quicker progress could be made. Such meetings of specialists might also lead to the creation of standing or ad hoc working parties to discuss specific problems and devise cooperative projects for their solution.

FAO's Expanded Technical Assistance Program - E.T.A.P. - provides a flexible framework within which, subject to budgetary limitations and the general conditions governing the application of the Program, projects of this nature can be initiated.

4. Changes in Production, Trade and Consumption The main changes suggested by targets and estimates for 1952/53 in the food and agricultural situation of the Near East are summarized below:

(i) Production (Chapter 1 - A) A continued expansion, both in output of crops and livestock products, over average prewar (1934-38) and postwar (1946-49) levels is programmed by all Governments in the Near East for the next few years. If targets for 1952/53 be realized, production of food and industrial crops in the Near East as a whole, would exceed the prewar average by about two-fifths that of livestock products by one-fourth. Production of food, which currently is about one-tenth higher than in prewar years, would show a further improvement of about one-fifth over the postwar level. Measured in terms of production per head of total population, the region's average postwar food production shows a slight decrease relative to prewar, but if present plans and programs are successful, should catch up with and, in certain countries, exceed the prospective increase in population. In Egypt and Iran, however, output per head of population during the next few years is expected to remain below prewar.

There are marked variations among individual crops with regard to programmed increases in production. Considerable emphasis is placed in the majority of country programs on the expansion of grain output with a view to increasing supplies for domestic consumption, exports or both. Equally substantial is the proposed extension of cotton output which in 1950 already exceeded the prewar level by one fifth. High rates of increase are also planned for sugar and potatoes. Production of fresh and dried fruits and vegetables, which are important export crops in some Near East countries, tends to be stabilized at, or slightly above, current levels, owing to the uncertain market outlook for these commodities. Output of citrus fruits in 1952/53 is unlikely to recover to prewar levels, mainly as a result of the disruption in output caused by the Palestine conflict.

With regard to livestock products, country programs suggest that output of milk will expand more rapidly than that of meat.

(ii) Trade (Chapter 2 - A) On the assumption that the levels of production programmed for 1952/53 are on the whole attained, the Near East would show a substantial net exportable surplus of grains, particularly barley and rice. Total export supplies of cotton may be about one-sixth higher than prewar and are capable of further expansion if the present upward trend in production is continued. Traditional Near East export availabilities of fresh fruits (other than citrus), dried fruits, dates and vegetables are likely to be maintained at a level somewhat higher than in prewar years, actual exports to be determined and possibly limited by foreign demand. The Near East is a deficit area with regard to sugar and imports, which at present are approximately one-third above the prewar figure, are expected to increase further by 1952/53.

(iii) Consumption (Chapter 3) Prospective levels of food supply emerging from production and trade targets and estimates generally reflect the desire of Near East governments to realize improvements in the prevailing levels of consumption. In countries where calorie levels are low, programs call for a rapid increase by expanding supplies of cereals, fats and pulses. In others, where calorie levels are reasonably adequate, the provision of more nutritious foods, particularly milk, is receiving increased attention. Yet undesirable trends from a nutritional point of view are also in evidence. In most countries, average supplies of pulses, which are good sources of protein, will not be increased to any appreciable extent. In some cases there is a tendency to increase supplies of roots and tubers which are rather poor in protein content with a simultaneous decrease in those of cereals and pulses. As a result, the already unsatisfactory protein intake is in danger of being further reduced. Moreover, in many instances, higher consumption of vegetables and fruits seems advisable.

5. Appraisal of Targets and Estimates for 1952/53 The review of measures of implementation given in this Working Paper indicates that, in a number of cases, Near East production targets and estimates appear difficult of achievement by 1952/53. This conclusion seems confirmed by an analysis of the 1950 levels of food and agricultural production in the Near East and of prospects for 1951. In particular, the planned production of wheat may fall short of expectations.

It is suggested that each Delegation, in cooperation with the secretariat, make a critical appraisal of its 1952/53 targets, or estimates made by the secretariat taking into account the level of production achieved in 1950 and the prospects for 1951.

In doing so, the Meeting may also wish to consider what changes appear advisable in the targets and estimates, taking into consideration:

- (a) The relative importance of nutritionally-valuable food stuffs and export crops where the alternatives exist;
- (b) The desirability of increased production of protein-rich legumes in rotation with cereals;
- (c) The possibilities of diversifying one-crop economies to improve the quality of local food supplies.

6. Government Programs and Measures for Implementing Production Targets and Estimates Among the means employed by governments to expand production, special interest attaches to:

- (a) Measures and programs for increased utilization of land and water resources which, apart from extending the area under cultivation, often permit raising the productivity of the land through a more efficient use of available water supplies (Chapter 1 - B and C).
- (b) Measures for increasing productivity per unit of land and livestock which can be put into operation with comparative ease and rapidity, such as increased use of fertilizers; introduction of improved crop varieties and provision of good seeds to farmers; control of field pests and diseases; control of animal diseases (Chapter 1 - D).
- (c) Measures for improving the social and economic status of Near East farmers as part of programs to improve productivity per man (Chapter 1 - E).

- (a) Expanding Production through Increased Utilization of Land and Water Resources In view of the growing population pressure exerted on the region's land and water resources, measures to bring about a rapid increase in the area under cultivation deserve a high priority in any development program. In the Near East, the area of cultivated land is small in relation to its territorial size. Of the total land area, only 6 per cent is under cultivation, and of this a large part is left fallow each year. Less than one per cent is regularly under irrigation.

Throughout most of the region, however, there exist large unused, but potentially productive, areas which, if fully developed, would permit tripling the area currently under cultivation. However, such development is unlikely to be realized within the foreseeable future. In the short run most of the expansion in cultivated area will be forthcoming from an extension of dry farming, coupled in some instances with the provision of some additional irrigation through the conservation and utilization of surface waters, the diversion of waters from small streams or the pumping of underground waters. For the Near East as a whole, the increase in cultivated area may reach 5-10 per cent in the next few years.

- (b) Expanding Production through Improving Productivity of Land and Livestock The decline in crop yields in postwar years as compared with the prewar period over large parts of the region, and the continued low level of livestock yields, emphasize the urgency of measures to improve the productivity of land and livestock.

Except in Egypt, where fertilization rates are among the highest in the world, consumption of plant nutrients in the Near East currently averages only a fraction of a kilogram per hectare of cultivated area. Since the region depends on imports for the bulk of its fertilizer requirements, the cost of fertilizers to the farmer is high relative to the price he receives for his produce. As a result, fertilizer application tends to be concentrated on a few high-value cash crops only, and consumption for the production of food crops is extremely limited in many countries. Moreover, there is, over most of the Near East, a serious lack of knowledge with regard to manuring techniques most suited to local conditions, and further investigation is required of the problem of maintaining and improving soil fertility both under dry farming conditions and in irrigation agriculture through efficient use of manures of all kinds, organic as well as inorganic, and through improved rotation practices.

In recent years notable results have been obtained in some Near East countries in the development of improved plant varieties and the introduction of varieties from other countries but increased attention will need to be given to the provision of adequate supplies of clean and pure seed to the farmers and to the organization of seed distribution schemes.

The threat of locust infestation, which currently menaces vast areas in the Near East, has drawn renewed attention to the region's vulnerability to plant pests and diseases. Intensification of programs of plant protection appears urgent, particularly with a view to ensuring close coordination of such programs at the regional level.

In this connection the Meeting may wish to consider the resolution adopted by the Council of FAO at its Twelfth Session in Rome regarding the strengthening of locust control in the Middle East and parts of Africa.

There is also in the Near East a high incidence of animal disease which seriously hampers development of the livestock industry. As in the case of plant pests and diseases, coordination between groups of countries, and at the regional level, of measures and programs for the prevention and treatment of animal

diseases, may usefully be extended. Increases in livestock numbers following continued animal disease control may, however, involve the risk of over-stocking and over-grazing which already constitute serious problems in many parts of the Near East, and provisions must be made to meet this situation.

The Meeting may wish to consider organizational measures, or steps, which might be taken to:

- (i) Extend the use by farmers of requisites such as commercial fertilizers, insecticides and pesticides. Possibilities of expanding production within the region, subsidization schemes and other measures are relevant in this connection.
 - (ii) Increase the supply of high quality seeds to the farmers.
 - (iii) Increase the general level of livestock productivity through improved management and feeding, selection and breeding and the long-term possibilities of building up a balanced system of mixed farming.
 - (iv) Pool resources - technicians and laboratory facilities - for dealing with problems which are common to or similar for several countries. In this connection attention is drawn to the possibility of establishing a Wheat Breeders' Working Party with a view to planning a comprehensive wheat breeding program for Near East countries.
- (c) Expanding Production through Increasing Output per Person

Measures for increasing output per person are an indispensable counterpart of programs for improving productivity of land and livestock. There are some 90 million people in the Near East depending on agriculture for their livelihood. Most of them are living on the extreme margin of subsistence. In the Near East desperate poverty is the central fact of rural life.

The low levels of income and consumption derive primarily from the very low productivity of the Near East peasant. For example, output of grains measured in terms of production per head of agricultural population averages less than 300 kgs as against 500 kgs in the world as a whole, 800 kgs in Europe and 5,500 kgs in the United States and Canada.

The vicious circle of poverty, ignorance and disease can only be broken by a major attack on rural conditions. To illustrate the various measures taken by governments for improving education, health and other social services, the questions of agricultural education and extension and cooperatives for rural credit, are reviewed in detail in the Working Paper. Reference is also made to the problem of land tenure which is dealt with in a study undertaken by FAO in cooperation with UN on agrarian structures and land tenure systems. The study is available to the Meeting as a separate document. There may be several measures and programs now being taken with respect to rural improvement by Near East governments which have not been mentioned, and it is hoped that these will come to light at the Meeting.

It is also hoped that Governments will be prepared to have a full exchange of views in respect of the findings of this study, in order to clarify the major factors underlying conditions of land tenure in the region.

The Meeting may also wish to consider measures to be adopted with regard to remaining deficiencies such as:

(i) Lack of adequate provision for agricultural extension services and practical demonstrations of new cultivation methods and equipment to be introduced into the traditional patterns of Near East peasant farming;

(ii) Lack of adequate credit facilities to farmers, particularly in respect of the provision of medium and long-term loans.

7. Investment for Agricultural Development. The carrying out of programs and measures for increasing agricultural production, whether through expanding utilization of land and water resources or improving productivity of land, livestock and labor, involves in most countries large capital investment both from private and public sources. In this respect most Near East countries are faced with considerable difficulties. Paucity of domestic capital resulting both from the low level of national income and from the inadequate incentives for mobilizing private savings, has been a traditional obstacle to expanding investment for economic development. However, the importance of this factor should not be over-estimated. As a result of heavy war-time expenditure on the part of the Allied Forces, the Near East had accumulated substantial sterling balances at the close of the second World War. Moreover, production of oil has expanded rapidly during the past few years and further increases in output are possible. Revenue from the sale of oil, together with releases from unspent sterling balances could, if wisely managed, be used to finance developmental programs. Moreover, the flow of international investment into the region has been on the increase in the past 18 months as a result mainly of expanding activities in the Near East of international financing institutions.

Nevertheless, the funds at present available to the region, from both internal and external sources, are still inadequate to meet the pressing needs for agricultural investment. Shortage of funds for agricultural improvement is all the more serious when considered in relation to the process of economic advancement: "The expansion of agriculture could, in addition to directly raising living standards, help to enlarge the internal market for industry; the development of industry would, by meeting some of the needs of agriculture, lessen the strain on the balance of payments; and such developments might, in turn, enlarge both private and governmental resources and so permit further efforts." 29/

Reference is made to the recommendation of the FAO Council adopted at its Twelfth Session which proposes that the problem of investment for agricultural development be discussed at the Sixth Session of the Conference.

It is suggested that this Meeting provides an opportunity for delegates to supply details of agricultural investment requirements in the various countries of the region, to be placed before the Conference for consideration at its sixth Session.

8. Distribution and Conservation of Supplies. Apart from the need for greater and more varied food and agricultural production, there is the need for bringing about a more equitable distribution, both internally and externally, and better conservation of available supplies.

29/ Review of Economic Conditions in the Middle East, page 61.

Accordingly the Meeting may wish to have an exchange of views regarding joint action for expanding trade through regional and international arrangements, improving quality standards for exportable commodities, liberalization of tariff regulations, etc.; and examine steps to be taken to further the study of the problems involved.

The Meeting may also wish to consider:

(i) Measures for improving transportation facilities between food surplus and deficit regions and for increasing the flow of perishable protective foods, such as milk, to urban markets and fish to inland areas;

(ii) Projects for the development of food processing and for improving storage facilities, particularly in order to make possible the constitution of emergency food stocks; and

(iii) Programs for protecting nutritionally-vulnerable population groups through special feeding programs, food subsidies, the establishment of nutrition advisory services and other appropriate means.

9. Improvement of Food and Agricultural Planning The full and orderly development of food and agricultural resources calls for the formulation and implementation of clear-cut policies, targets and programs. Since the end of the second World War, considerable progress has been achieved in this direction, (Part II - Introduction),

It is suggested that further progress could be achieved in the following directions:

(i) Strengthening of administrative and technical services through training and employing more qualified administrative and technical personnel, including nutrition experts statisticians and economists;

(ii) Establishing in countries where this has not already been done of central development boards or similar bodies for the purpose of coordinating programs and projects in the fields of production, trade, distribution and consumption; and

(iii) Encouraging public interest and cooperation in developmental activities.

The Meeting may wish to review the experience of Near East countries in the establishment of sound planning practices with regard to both food and agricultural development. Attention is drawn to the training centre for Economic Appraisal of Development Projects which will be held in Ankara (Turkey) from October through December 1951. Travel costs for two participants from each country to and from the centre will be paid by FAO under the Technical Assistance Program.

The Meeting may also wish to consider measures to be taken jointly by Governments for continuing and expanding regional and international cooperation with regard to the coordination of national and economic agricultural policies.

STATISTICAL APPENDIX

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REMARKS

Totals for the Near East include estimates for a number of countries and areas not shown in the tables (but grouped under "Other"). The most important are Aden and Protectorate, Afghanistan, British Somaliland, French Somaliland and Saudi Arabia.

Trade data for grains (except rice) and cotton are by trade season (1946/47, etc.), for all other commodities, by calendar years (1946, etc.).

Data shown include revisions up to December 1, 1950.

TABLE I.- WHEAT: Area and production, prewar, current years and projections for 1952

Country	Area					Production						
	Prewar	1946	1947	1948	1949	1952	Prewar	1946	1947	1948	1949	1952
	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)
A.E. Sudan	9	11	13	9	14	#15	7	9	22	6	17	#25
Cyprus	74	80	79	74	74	#80	59	62	41	36	62	#70
Egypt	588	666	684	637	595	588	1,184	1,163	1,044	1,080	1,167	1,260
Eritrea	6	9	9	9	7	#11	4	4	4	3	2	#5
Ethiopia	(200)	(350)	400	400	200	#250	(100)	(180)	200	200	100	#125
Iran	1,552	(1,800)	2,000	1,600	2,000	2,600	1,869	2,080	1,900	1,550	2,000	2,400
Iraq	661	870	954	963	(1,000)	#1,000	478	370	235	301	500	#650
Jordan	(160)	140	70	119	153	#140	81	94	37	100	139	#125
Lebanon	68	*65	70	70	70	#80	35	*70	50	50	50	#70
Syria	473	810	844	900	*930	#1,000	459	577	404	656	*540	#900
Turkey	3,450	3,831	4,177	4,478	4,011	5,000	3,412	3,648	3,246	4,867	2,557	6,000
Other	2,217	2,140	2,132	2,132	2,129	2,152	1,787	1,781	1,763	1,799	1,814	1,839
Total Near East	9,458	10,772	11,432	11,391	11,183	12,916	9,475	10,038	8,946	10,643	8,948	13,469

TABLE II.- RYE: Area and production, prewar, current years and projections for 1952

Country	Area					Production						
	Prewar	1946	1947	1948	1949	1952	Prewar	1946	1947	1948	1949	1952
	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)
Turkey	350	397	436	453	423	550	336	442	348	514	274	500
Other	1	1	1	1	1	-	1	1	1	1	1	-
Total Near East	351	398	437	454	424	550	337	443	349	515	275	500

TABLE III.- BARLEY: Area and production, prewar, current years and projections for 1952

Country	Area					Production						
	Prewar	1946	1947	1948	1949	1952	Prewar	1946	1947	1948	1949	1952
	(.....)	1,000 hectares.....	1,000 hectares.....	1,000 hectares.....	1,000 hectares.....	1,000 metric tons.....	(.....)	1,000 metric tons.....	1,000 metric tons.....	1,000 metric tons.....	1,000 metric tons.....	1,000 metric tons.....
A.E. Sudan	2	1	1	-	1	#2	2	1	-	-	-	#2
Cyprus	46	47	50	52	53	#50	44	46	41	40	58	#50
Egypt	113	103	100	92	71	63	225	178	170	167	138	135
Eritrea	18	28	41	43	26	#45	10	15	24	25	15	#28
Ethiopia	(400)	(900)	1,000	1,000	1,000	#1,000	127	(350)	400	800	700	(750)
Iran	638	*658	790	600	700	900	793	*270	800	550	850	1,000
Iraq	743	1,219	1,049	974	(1,000)	#1,000	575	295	500	570	800	#900
Jordan	(30)	33	15	36	51	#60	37	37	8	41	56	#60
Lebanon	33	22	15	24	20	#20	29	26	17	22	27	#25
Syria	275	371	365	370	(370)	#400	290	282	169	260	(260)	#320
Turkey	1,772	1,736	1,805	1,828	1,749	2,100	1,954	1,654	1,512	2,167	1,247	2,200
Other	234	201	202	192	196	202	69	66	63	62	83	103
Total Near East	4,304	5,319	5,433	5,211	5,237	5,842	4,155	4,423	3,704	4,704	4,234	5,573

TABLE IV. - OATS: Area and production, prewar, current years and projections for 1952

Country	Area					Production						
	Prewar (.....)	1946	1947	1948	1949	1952 (.....)	Prewar (.....)	1946	1947	1948	1949	1952 (.....)
			1,000 hectares					1,000 metric tons				
Cyprus	5	6	5	4	5	#5	4	3	2	3	3	#3
Ethiopia	(5)	(9)	10	10	10	#10	(2)	(5)	5	5	5	#5
Lebanon	-	(1)	1	1	1	#1	-	(2)	2	2	2	#2
Syria	10	8	7	7	(7)	#7	10	9	5	5	(5)	#5
Turkey	229	272	270	275	294	250	223	230	196	323	235	250
Other	1	1	1	1	1	1	1	1	1	1	1	1
Total Near East	250	297	294	298	318	274	240	250	211	339	251	266

TABLE V.- MAIZE: Area and production, prewar, current years and projections for 1952

Country	Area					Production						
	Prewar	1946	1947	1948	1949	1952	Prewar	1946	1947	1948	1949	1952
	(.....)	1,000 hectares.....	1,000 hectares.....	1,000 hectares.....	1,000 hectares.....	(.....)	(.....)	(1000 metric tons.....)	(1000 metric tons.....)	(1000 metric tons.....)	(1000 metric tons.....)	(.....)
A.E. Sudan	11	17	17	19	17	#20	12	16	(16)	14	19	#22
Egypt	649	721	675	652	628	609	1,616	1,422	1,401	1,409	1,250	1,421
Eritrea	7	27	11	47	50	#50	4	17	4	9	10	#20
Ethiopia	(90)	(180)	(190)	170	150	#200	91	(180)	200	170	150	#200
Iran	(4)	(4)	6	5	6	#8	(4)	(4)	6	4	7	#10
Iraq	(20)	21	30	33	(33)	#35	(15)	15	14	21	(21)	#35
Jordan	-	-	-	-	-	#1	-	1	-	-	1	#1
Lebanon	(6)	6	6	6	7	#7	(10)	13	12	13	13	#15
Syria	18	24	22	25	(25)	#30	22	28	28	30	(30)	#40
Turkey	442	566	535	534	597	600	557	595	531	696	725	800
Other	7	7	7	6	8	8	8	8	7	7	10	10
Total Near East	1,254	1,573	1,499	1,497	1,521	1,568	2,339	2,299	2,219	2,373	2,236	2,574

TABLE VI.- MILLET and/or SORGHUM: 1/ Area and production, prewar, current years and projections for 1952

Country	Area					Production						
	Prewar (.....)	1946	1947	1948	1949	1952 (.....)	Prewar (.....)	1946	1947	1948	1949	1952 (.....)
			.....1,000	hectares.....				.....1,000	metric tons.....			
A.E. Sudan	(1,050)	1,365	1,266	1,152	1,336	#1,400	(542)	845	820	534	742	#800
Egypt	141	231	228	221	209	185	426	525	578	559	567	570
Eritrea	32	169	126	131	114	#150	18	80	51	63	57	#75
Ethiopia	(2,700)	(3,250)	(3,300)	3,330	3,250	#3,400	(1,350)	(1,650)	(1,700)	1,730	1,650	#1,900
Iran	(15)	(15)	20	15	9	#10	(16)	(16)	21	16	18	#20
Iraq	(160)	(160)	(160)	(180)	(180)	#170	*120	*125	*112	*110	(140)	#140
Jordan	(5)	5	3	10	10	#10	(2)	2	4	18	15	#12
Lebanon	97	10	(10)	(10)	(10)	#10	71	10	(10)	9	(9)	#10
Syria)	95	95	(90)	(90)	(90)	#100		59	(55)	(55)	(55)	#60
Turkey	49	69	63	66	73	65	44	60	59	82	57	60
Other	101	96	88	88	103	100	68	62	58	53	60	65
Total Near East	4,350	5,465	5,354	5,293	5,384	5,600	2,657	3,434	3,468	3,259	3,370	3,712

TABLE VII.- RICE: 1/ Area and production, prewar, current years and projections for 1952

Country	Area					Production						
	Prewar	1946	1947	1948	1949	1952	Prewar	1946	1947	1948	1949	1952
	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)
			1,000 hectares.....					1,000 metric tons.....				
Egypt	174	265	326	330	295	281	609	939	1,276	1,308	1,168	1,108
Iran	219	(180)	220	250	220	300	423	*420	350	450	480	550
Iraq	152	307	239	295	(235)	#250	205	356	193	350	230	#350
Lebanon	-	-	-	-	-	-	-	1	1	1	1	#1
Syria	1	8	8	8	(8)	#10	3	12	22	20	(20)	#25
Turkey	34	18	24	26	27	40	64	50	69	75	72	80
Other	220	220	220	220	220	220	335	335	335	335	335	335
Total Near East	800	998	1,037	1,129	1,005	1,101	1,639	2,113	2,246	2,539	2,306	2,449
1/ Paddy equivalent												

TABLE VIII.- POTATOES: Area and production, prewar, current years and projections for 1952

Country	Area					Production						
	Prewar	1946	1947	1948	1949	1952	Prewar	1946	1947	1948	1949	1952
	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)
A.E. Sudan	-	-	-	-	-	#2	(2)	(2)	2	(2)	(2)	#8
Cyprus	3	4	5	5	4	#4	24	35	38	44	36	#40
Egypt	4	13	14	18	15	20	47	163	200	242	204	282
Eritrea	-	1	-	1	-	#2	-	1	1	2	1	#5
Ethiopia	(3)	(3)	(3)	3	3	#3	(3)	(3)	(3)	3	3	#3
Iran	-	(4)	4	5	3	4	-	(40)	40	45	35	45
Iraq	(2)	(2)	(2)	(2)	(2)	#5	*5	*5	*8	*10	(10)	#20
Lebanon	6	4	4	4	5	#4	24	35	32	35	40	#35
Syria	3	3	3	3	(3)	#3	18	15	15	15	(15)	#20
Turkey	55	57	62	66	67	80	171	265	325	454	407	550
Other	1	5	4	4	4	6	6	47	38	37	32	51
Total Near East	77	96	101	111	106	133	300	611	702	889	785	1,059

TABLE IX - PULSES: 1/ Area and production, prewar, current years and projections for 1952

Country	Area					Production						
	Prewar	1946	1947	1948	1949	1952	Prewar	1946	1947	1948	1949	1952
	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)
A.E. Sudan	(6)	(6)	(6)	9	8	#10	(3)	(4)	(4)	6	12	#15
Cyprus	(6)	(6)	7	7	6	#7	4	4	3	3	4	#5
Egypt	198	200	198	206	217	209	357	360	316	348	382	379
Eritrea	(13)	(13)	15	13	14	#13	(6)	(6)	8	5	7	#7
Ethiopia	(625)	(750)	750	750	800	#750	(200)	(250)	250	250	275	#250
Iran	(150)	(150)	150	(150)	(150)	120	(160)	(160)	160	(160)	(160)	150
Iraq	(10)	10	9	10	(10)	#10	(5)	4	3	5	(5)	#5
Jordan	(31)	(50)	(35)	20	19	#25	(23)	(25)	11	(13)	13	#20
Lebanon	3	9	9	9	(9)	#9	(6)	(12)	(14)	13	12	#15
Syria	63	94	101	101	(124)	#125	62	51	80	80	(99)	#100
Turkey	257	237	250	274	256	#300	195	183	190	250	214	#270
Other	2	2	2	2	2	3	1	1	1	1	1	2
Total Near East	1,364	1,527	1,532	1,551	1,615	1,581	1,022	1,060	1,040	1,134	1,184	1,218
1/ Including dry beans, dry peas, broad beans, chickpeas and lentils. Coverage varies for individual countries												

1/ Including dry beans, dry peas, broad beans, chickpeas and lentils. Coverage varies for individual countries

TABLE X.- SUGAR: 1/ Area and production, prewar, current years and projections for 1952

Country	Area					Production						
	Prewar (.....)	1946	1947	1948	1949	1952 (.....)	Prewar (.....)	1946	1947	1948	1949	1952 (.....)
Egypt	27	39	34	33	36	40	146	191	222	191	170	250
Iran	12	30	30	29	35	50	17	36	48	38	30	65
Syria	-	-	-	-	-	#10	-	-	-	-	-	#13
Turkey	28	40	46	48	51	52	61	118	118	123	140	140
Total Near East	67	109	110	110	122	152	224	345	388	352	340	468

1/ Raw value; refers to cane sugar in Egypt, to beet sugar in Iran, Syria and Turkey.

TABLE XI.- CITRUS FRUIT: ^{1/} Production,
prewar, current years and projections for 1952

Country	1934-38	1946	1947	1948	1949	1952
(.....1,000 metric tons.....)						
A.E. Sudan	(1)	(1)	2	3	(3)	#5
Cyprus	14	28	25	27	28	#35
Egypt	235	243	*262	*252	*229	227
Eritrea	(1)	(1)	1	1	1	#1
Iran	*15	*50	50	68	*40	#60
Lebanon)	*61	*54	65	67	(67)	#65
Syria)		*5	6	*5	(5)	#6
Turkey	36	39	48	35	42	#45
Other	406	382	512	259	255	310
Total Near East	769	803	971	717	670	754

^{1/} Including oranges, tangerines, grapefruit, lemons and limes.

TABLE XII.- COTTON: 1/ Area and production, prewar, current years and projections for 1952

Country	Area					Production						
	Prewar (.....)	1946	1947	1948	1949	1952 (.....)	Prewar (.....)	1946	1947	1948	1949	1952 (.....)
			.....1,000 hectares.....			.....1,000 metric tons.....						
A.E. Sudan	173	136	147	163	173	#180	53	48	47	56	55	#65
Cyprus	5	3	2	2	2	#3	1	-	-	-	-	#1
Egypt	746	509	527	606	711	819	400	272	286	400	391	482
Eritrea	3	(1)	1	-	-	-	-	-	-	-	-	-
Ethiopia	(20)	(20)	20	18	18	#30	(2)	(2)	2	2	2	#4
Iran	158	80	83	*105	*90	120	34	14	17	*22	*21	35
Iraq	16	10	9	7	11	#60	2	1	1	-	2	#10
Lebanon)	32	20	19	24	(50)	#100	6	5	5	6	*17	#35
Syria)												
Turkey	249	247	206	271	247	400	52	44	47	67	97	100
Other	75	20	20	30	30	40	10	2	2	4	4	5
Total Near East	1,477	1,046	1,034	1,226	1,332	1,752	560	388	407	557	589	737
1/ Ginned												

TABLE XIII.- TOBACCO: Area and production, prewar, current years and projections for 1952

Country	Area					Production						
	Prewar	1946	1947	1948	1949	1952	Prewar	1946	1947	1948	1949	1952
	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)
A.E. Sudan	(2)	(3)	(3)	(3)	(3)	#3	(2)	1	(2)	(2)	(2)	#2
Cyprus	1	3	1	1	1	#1	-	1	-	-	-	#1
Ethiopia	(4)	(5)	5	5	5	#5	(2)	(3)	3	1	1	#2
Iran	12	15	15	15	15	16	15	17	11	12	17	18
Iraq	4	*8	3	3	3	#4	5	*7	3	3	3	#4
Jordan	-	-	-	1	1	#1	-	-	-	-	-	#1
Lebanon	2	2	2	2	*2	#2	1	2	2	2	*1	#2
Syria	4	5	7	*5	*7	#7	3	10	4	*4	*4	#5
Turkey	72	123	132	106	127	100	55	98	102	74	91	90
Other	3	2	2	2	2	2	1	1	1	1	1	2
Total Near East	104	166	170	143	166	141	84	140	128	99	120	127

TABLE XIV.- VEGETABLE OILSEEDS and OILS: Production (oil equivalent) prewar, current years and projections for 1952 ¹/₁

Country	Year	Cottonseed and Oil	Olive Oil	Other Veg. Oilseeds and Oils	Total
(.....1,000 metric tons, oil equivalent.....)					
A.E. Sudan	Prewar	16	-	36	52
	1946	15	-	45	60
	1947	14	-	70	84
	1948	17	-	69	86
	1949	18	-	69	87
	1952	#20	-	#70	#90
Cyprus	Prewar	-	2	1	3
	1946	-	1	-	1
	1947	-	1	-	1
	1948	-	1	-	1
	1949	-	4	-	4
	1952	-	#3	#1	#4
Egypt	Prewar	131	-	9	140
	1946	87	-	9	96
	1947	87	-	13	100
	1948	120	-	16	136
	1949	118	-	14	132
	1952	145	-	15	160
Eritrea	Prewar	-	-	1	1
	1946	-	-	-	-
	1947	-	-	-	-
	1948	-	-	-	-
	1949	-	-	1	1
	1952	-	-	#1	#1
Iran	Prewar	11	1	4	16
	1946	4	1	5	10
	1947	4	2	6	12
	1948	5	1	5	11
	1949	5	1	6	12
	1952	#10	#4	#8	#22
Iraq	Prewar	1	-	10	11
	1946	-	-	8	8
	1947	-	-	7	7
	1948	-	-	7	7
	1949	1	-	7	8
	1952	#3	-	#8	#11
Jordan	Prewar	-	1	-	1
	1946	-	-	-	-
	1947	-	1	-	1
	1948	-	-	-	-
	1949	-	1	-	1
	1952	-	#2	-	#2

See foot note at end of table

TABLE XIV.- VEGETABLE OILSEEDS and OILS: Production (oil equivalent) prewar, current years and projections for 1952 ^{1/} (Concluded)

Country	Year	Cottonseed and Oil	Olive Oil	Other Veg. Oilseeds and Oils	Total
(.....1,000 metric tons, oil equivalent.....)					
Lebanon	Prewar	-	4	-	4
	1946	-	6	1	7
	1947	-	9	-	9
	1948	-	12	-	12
	1949	-	11	1	12
	1952	-	#11	#1	#12
Syria	Prewar	2	8	1	11
	1946	2	6	2	10
	1947	2	16	2	20
	1948	2	13	2	17
	1949	5	18	2	25
	1952	#10	#15	#4	#29
Turkey	Prewar	17	37	15	69
	1946	14	32	21	67
	1947	15	58	40	113
	1948	19	37	58	114
	1949	28	43	59	130
	1952	32	50	73	155
Other	Prewar	2	7	148	157
	1946	-	4	134	138
	1947	3	3	112	118
	1948	2	6	133	141
	1949	5	2	131	138
	1952	-	5	139	144
Total Near East	Prewar	180	60	225	465
	1946	122	50	225	397
	1947	125	90	250	465
	1948	165	70	290	525
	1949	180	80	290	550
	1952	220	90	320	630

- 1/ Data refer to oil equivalent of vegetable oilseeds and oils produced domestically.
Data for current years are on a calendar year basis.
1952 refers to consumption year starting 1 July 1952.

TABLE XV.- CATTLE: Thousand head

Country	Prewar	October-September		
		1946/47	1947/48	1948/49
A.E. Sudan	2,700	3,400	3,500	3,500
Cyprus	40	40	37	(38)
Egypt	1,230	1,321	(1,325)	(1,325)
Eritrea	(1,200)	1,300	1,220	1,200
Ethiopia	18,000	(15,000)	15,750	18,000
Iran	2,920	2,500	2,500	2,500
Iraq	(500)	(800)	(820)	822
Jordan	58	60	59	64
Lebanon <u>1/</u>	47	22	22	(22)
Syria	357	371	354	369
Turkey	9,311	9,764	9,801	10,279
Other	2,988	3,087	3,077	3,060
Total Near East	39,351	37,665	38,465	41,179

1/ Including Buffaloes.

TABLE XVI.- BUFFALOES: Thousand head.

Country	Prewar	October-September		
		1946/47	1947/48	1948/49
Egypt	966	1,240	(1,300)	(1,300)
Iran	(11)	11	10	10
Iraq <u>1/</u>	(100)	(120)	(120)	130
Syria	6	5	6	(6)
Turkey	925	899	947	937
Other	6	5	5	5
Total Near East	2,014	2,280	2,388	2,388

1/ Animals registered for taxation

TABLE XVII.- SHEEP: Thousand head.

Country	Prewar	October-September		
		1946/47	1947/48	1948/49
A.E. Sudan	2,500	5,400	5,500	5,500
Cyprus <u>1/</u>	301	313	291	283
Egypt	1,897	1,875	(1,900)	(1,925)
Eritrea	1,491 <u>2/</u>	880	880	850
Ethiopia	(6,000)	(12,000)	15,000	17,000
Iran	14,011	13,200	12,900	13,000
Iraq <u>3/</u>	5,525	8,000	(8,000)	7,055
Jordan	224	239	125	113
Lebanon <u>3/</u>	38	21	20	(20)
Syria	3,100	3,260	3,176	2,935
Turkey	25,221	23,528	24,580	25,840
Other	17,844	16,300	16,229	16,015
Total Near East	78,152	85,016	88,601	90,536

1/ Animals over one year old.

2/ Sheep and goats

3/ Animals registered for taxation

TABLE XVIII.- GOATS: Thousand head

Country	Prewar	October-September		
		1946/47	1947/48	1948/49
A.E. Sudan	2,000	4,200	4,300	4,300
Cyprus <u>1/</u>	184	195	187	160
Egypt	1,088	1,474	(1,500)	(1,500)
Eritrea	... <u>2/</u>	1,130	1,131	1,135
Ethiopia	(8,000)	(8,000)	10,000	11,000
Iran	7,119	6,800	6,750	7,000
Iraq <u>3/</u>	2,224	2,250	(2,100)	1,849
Jordan	439	304	280	332
Lebanon <u>3/</u>	550	450	450	*450
Syria	3,275	1,257	1,185	1,220
Turkey	16,518	16,625	17,528	18,558
Other	9,781	9,320	9,120	8,920
Total Near East	49,178	52,005	54,531	56,424

1/ Animals over one year old.

2/ Included with sheep.

3/ Animals registered for taxation.

TABLE XIX.- CAMELS: Thousand head.

Country	Prewar	October-September		
		1946/47	1947/48	1948/49
A.E. Sudan	(900)	1,400	1,500	1,500
Cyprus	1	1	1	1
Egypt	175	197	(200)	(200)
Eritrea	68	110	105	105
Ethiopia	(2,000)	(2,000)	2,000	2,000
Iran	(700)	670	670	600
Iraq <u>1/</u>	(200)	(250)	(275)	291
Jordan <u>1/</u>	2	2	6	4
Lebanon	3	2	*2	*2
Syria	68	57	54	70
Turkey	109	97	104	109
Other	1,496	2,457	2,452	2,447
Total Near East	5,722	7,243	7,369	7,329

1/ Animals registered for taxation

TABLE XX.- WHEAT and WHEAT FLOUR: Net trade, prewar, current years and projections for 1952/53
(A minus sign (-) designates net exports or export availabilities)

Country	1946/47	1947/48	1948/49	1949/50	1952/53
	Prewar				
	(.....)	(.....)	(.....)	(.....)	(.....)
A.E. Sudan	24	15	8	15	#15
Cyprus	22	40	53	14	#35
Egypt	7	13	150	449	528
Eritrea	8	-	-1	...	#5
Ethiopia	...	-20	-11	...	#-10
Iran	-19	-	4	272	#-50
Iraq	-54	-3	28	31	#-200
Jordan	-22	-1	...	(-7)	#-25
Lebanon)	-12	-6	46	-101	#90
Syria)	-81	-196	-2	348	#-350
Turkey	82	340	294	212	-250
Other					243
Total Near East	-45	182	569	1,160	31

TABLE XXI.- RYE and RYE FLOUR: Net trade, prewar, current years and projections for 1952/53
(A minus sign (-) designates net exports or export availabilities)

Country	1946/47	1947/48	1948/49	1949/50	1952/53
	Prewar				
	(.....)	(.....)	(.....)	(.....)	(.....)
Syria	-	1	-	-	-
Turkey	-21	-10	-	-	-30
Other	8	18	-	7	-
Total Near East	-13	9	-	7	-30

TABLE XXII.- BARLEY: Net trade, prewar, current years and projections for 1952/53

(A minus sign (-) designates net exports or export availabilities)

Country	Prewar	1946/47	1947/48	1948/49	1949/50	1952/53
	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)
						1,000 metric tons
Cyprus	-4	10	13	4	...	-
Egypt	-7	-24	-	-	-9	-
Ethiopia	...	...	...	...	...	#-30
Iran	-11	-	...	-	...	#-50
Iraq	-209	-235	-140	-160	-546	#-400
Jordan	...	-	-3	-	-21	#-20
Lebanon	-31	-1	16	-	-81	#10
Syria	-98	-136	-9	-6	8	#-100
Turkey	14	112	42	8	-26	-150
Other						-
Total Near East	-346	-274	-81	-154	-675	-740

TABLE XXIII.- OATS: Net trade, prewar, current years and projections for 1952/53

(A minus sign (-) designates net exports or export availabilities)

Country	Prewar	1946/47	1947/48	1948/49	1949/50	1952/53
	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)
						1,000 metric tons
Turkey	-11	-18	-1	-	-	-
Other	-	-	-	1	1	-
Total Near East	-11	-18	-1	1	1	-

TABLE XXIV.- MAIZE: Net trade, prewar, current years and projections for 1952/53

(A minus sign (-) designates net exports or export availabilities)

Country	Prewar	1946/47	1947/48	1948/49	1949/50	1952/53
						(.....1,000 metric tons.....)
A.E. Sudan	-4	-8	-22	...	...	#-5
Egypt	2	-2	219	303	103	228
Ethiopia	-	...	...	...	...	#-30
Iraq	-1	-	-	-6	-	-
Lebanon)	-	-4	11	...	-1	-
Syria)	-	-	-12	-4	-	-
Turkey	-3	-	16	11	16	5
Other	4	-				
Total Near East	-2	-14	212	304	118	198

TABLE XXV.- RICE: 1/ Net trade, prewar, current years and projections for 1952

(A minus sign (-) designates net exports or export availabilities)

Country	Prewar	1946	1947	1948	1949	1952
						(.....1,000 metric tons.....)
A.E. Sudan	3	2	3	6	4	#6
Cyprus	2	2	2	2	2	#3
Egypt	-98	-203	-167	-350	-343	-169
Britrea	1	-	-	...	...	#3
Iran	-29	-55	-12	-1	-16	#-50
Iraq	-1	-1	-	4	-1	-
Jordan	3	2	2	9	5	-
Lebanon)	19	3	4	20	2	#12
Syria)	-	-	-	-	1	#10
Turkey	30	14	13	26	45	54
Other	-70	-236	-155	-284	-301	-131
Total Near East						

1/ In terms of milled rice.

TABLE XXVI.- POTATOES: Net trade, prewar, current years and projections for 1952

(A minus sign (-) designates net exports or export availabilities)

Country	Prewar	1946	1947	1948	1949	1952
	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)
A.E. Sudan	1	-	-	1	1	-
Cyprus	-13	-19	-13	-16	-33	#-15
Egypt	18	7	12	2	20	-10
Iran	-14	-4	-7	-5	-4	-
Iraq	2	4	6	5	5	#5
Lebanon)	-5	-3	-2	-	6	#-5
Syria)	17	12	21	11	20	#10
Other						2
Total Near East	6	-3	7	-2	15	-13

TABLE XXVII.- SUGAR: Net trade, prewar, current years and projections for 1952

(A minus sign (-) designates net exports or export availabilities)

Country	Prewar	1946	1947	1948	1949	1952
	(.....)	(.....)	(.....)	(.....)	(.....)	(.....)
A.E. Sudan	-27	20	20	51	39	#40
Cyprus	3	3	4	5	14	#5
Egypt	-22	1	-3	-1	35	45
Eritrea	3	2	1	...	...	#4
Ethiopia	...	2	2	5	8	#8
Iran	74	71	95	88	23	#70
Iraq	37	37	27	86	80	#60
Jordan	3	3	7	21	20	#10
Lebanon)	32	21	37	36	30	#15
Syria)	20	-8	-	30	20	#20
Turkey	35	38	34	11	39	#20
Other						46
Total Near East	212	190	224	332	298	343

TABLE XXVIII.- CITRUS FRUIT: 1/ Net trade, prewar, current years and projections for 1952

(A minus sign (-) designates net exports or export availabilities)

Country	Prewar	1946/47	1947/48	1948/49	1949/50	1952/53
						(.....1,000 metric tons.....)
A.E. Sudan	-	7	3	7	-	#5
Cyprus	-11	-5	-12	-13	-17	#-23
Egypt	-6	1	-	-	-	-
Iran	1	-	-	-	-	-
Lebanon)	-11	8	8	-6	-1	#-45
Syria)	2	-	-	-	-1	-
Turkey	-319	-225	-347	-368	-160	-220
Other	-344	-218	-348	-380	-179	-283
Total Near East						
1/ Including oranges, tangerines, grapefruit, lemons and limes						

TABLE XXIX.- COTTON: 1/ Net trade, prewar, current years and projections for 1952/53

(A minus sign (-) designates net exports or export availabilities)

Country	Prewar	1946/47	1947/48	1948/49	1949/50	1952/53
						(.....1,000 metric tons.....)
A.E. Sudan	-50	-54	-48	-72	-71	#-70
Egypt	-379	-323	-342	-369	-357	-431
Ethiopia	-	1	-	-	1	-
Iran	-19	-1	-1	-3	-3	#-10
Iraq	-2	-1	-1	-	-1	#-4
Lebanon)	-3	1	2	3	-	-
Syria)	-18	-	-1	-29	-53	#-15
Turkey	1	2	2	3	2	#-25
Other						#2
Total Near East	-470	-375	-389	-467	-482	-553
1/ Ginned.						

TABLE XXX.- TOBACCO: Net trade, prewar, current years and projections for 1952
(A minus sign (-) designates net exports or export availabilities)

Country	Prewar	1946	1947	1948	1949	1952
						(.....1,000 metric tons.....)
A.E. Sudan	-	-	-	-	-	-
Cyprus	-	-	-	-	-	-
Egypt	6	12	11	11	14	#15
Eritrea	-	-	3	-	-	-
Iran	-	-2	-	-	-	-#1
Iraq	-	-	-	-	-	-
Lebanon)	-1	-2	-3	-2	-2	-
Syria)	-29	-29	-43	-44	-80	-#2
Turkey	1.	2	2	2	2	-60
Other	-23	-19	-30	-33	-66	3
Total Near East						-45

N O T E S

- (1) According to recent estimates (October 1951) total production of cotton in the Near East is not expected to exceed last year's crop by more than 15-20%, yields in Egypt and Syria having remained below expectation.
- (2) A 5-year Development Plan for Iraq was recently prepared by the Higher Economic Planning Board and was put into operation on 1 April 1951.

A long term development program for Jordan is in preparation.

- (3) Consultations between individual delegations and the Secretariat in respect of 1952/53 production levels have, in general, confirmed the conclusions contained in this Section, in particular regarding the prospective volume of production of food. Modifications proposed for targets and estimates of cotton output are discussed below.
- (4) Proposed changes in targets and estimates of output of cotton in 1952/53 may be summarized as follows:-

	<u>Working Paper</u> <u>Estimates</u>	<u>Revised</u> <u>Estimates</u>
(... 1,000 metric tons...)		
Iraq	10	20
Syria	35	60
Turkey	100	190

On the basis of these data and allowing for some further increases in production of other Near East areas, the region's total output in 1952/52 may reach some 900,000 metric tons (in terms of ginned cotton) or about 3/5 over the prewar level and more than twice as high as average production in 1946-49.

Obviously the extent to which farmers will attempt to realize such high production levels will depend largely on trends of world cotton prices during the current marketing season (see Market Situation for Selected Commodities, Page 57).

- (5) In Iraq also plans call for substantial increases in production of certain types of oil seeds, particularly linseed and soya beans, over the next 10 years.
- (6) However, according to reports submitted by the Cyprus Representative, possibilities for a further expansion of the area under irrigation are limited. Most of the flood waters that can be economically diverted onto the land are now being utilized. There are still places where water is lost into the sea but the area of agricultural land in these places is generally small and cost of diverting the

flood waters over long distances of hilly country is prohibitive. Moreover, while in many areas there is still scope for the development of underground water supplies, in others there is evidence of over-pumping as shown by the reduction in flow and the increase in the salt content of the water.

(7) Other schemes included in the new 5-year Development Plan are:-

Construction of a reservoir on the Diyala River for flood control and water storage for irrigation of over 450,000 hectares;

Construction of a reservoir on the Lesser Zab for irrigation of approximately 450,000 hectares;

Various smaller irrigation and drainage projects.

- (8) According to recent estimates the area currently under irrigation amounts to 44,000 hectares. The total area which could be brought under irrigation is estimated at 85,000 hectares.
- (9) Information submitted by the Delegation of Saudi Arabia stresses the high priority now being given in this country to the development of additional water supplies for irrigation. To-date 2100 pumps have been distributed to cultivators through the Directorate of Agriculture, and a total of 10,400,000 rials has been allocated for the construction of dams and other irrigation projects.
- (10) It has been estimated on the basis of current projects that the total irrigated area in Syria would reach 500,000 hectares within the next two years. Longer term programs call for a total of 1,000,000 hectares to be brought under irrigation.
- (11) It is reported that by the end of 1951, Turkey will have facilities for cleaning and treating seeds free of charge to the farmers, sufficient to deal with approximately half the country's requirements of grains for sowing.
- (12) Implementation of a project to erect a plant for the production of D.D.T. in Egypt is reported to start at an early date.
- (13) Data for 1950 are:

Number of Credit Societies and Cooperatives	-	446
Short-term loans by Cooperative Central Bank	-	£.515,00
Medium-term loans by " " "	-	£ 8
Long-term loans by Agricultural Bank	-	

- (14) If the revised production targets and estimates mentioned above are realized, Near East export availability 1952/53 may reach some 690,000 metric tons, an increase over the prewar level. - - -

