

Report of the
**THIRD FAO REGIONAL CONFERENCE
FOR AFRICA**

Addis Ababa, Ethiopia, 3—15 September 1964



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

REPORT
of the
THIRD FAO REGIONAL CONFERENCE
for
AFRICA

ADDIS ABABA, ETHIOPIA

3-15 September 1964

Food and Agriculture Organization of the United Nations
Rome, Italy

21813/E

C O N T E N T S

	Page
I	
<u>INTRODUCTION</u>	
Organization of the Conference	1
Opening of the Conference	1
Election of Officers and Adoption of the Agenda	4
II	
<u>SUMMARY OF PROCEEDINGS</u>	
<u>THE WORK OF FAO IN AFRICA IN RELATION TO THE FREEDOM FROM HUNGER CAMPAIGN, THE UN DEVELOPMENT DECADE AND THE FOOD AND AGRICULTURE SITUATION</u>	
The Food and Agricultural Situation in Africa	5
(a) Policy Statement by the Director-General	5
(b) Review of the Current Situation in the Region	8
Report on Action by FAO in the Region	10
<u>MAJOR POLICY QUESTIONS OF FOOD AND AGRICULTURAL DEVELOPMENT IN THE REGION</u>	
World Food Congress and Future Direction of the Freedom from Hunger Campaign	14
Government Measures to Promote the Transition from Subsistence to Market Agriculture	17
Measures for Enlisting more Active Participation of the People in Rural Development	21
Application of Science and Technology to Agriculture	24
(a) Raising Levels of Production and Productivity	24
(b) Improving Processing and Utilization	27
Regional and World Economic Considerations bearing on African Agriculture, Fisheries and Forestry Planning and Development	30
Foreign Aid in Food and Agriculture: Organizational and Administrative Aspects	38

CONCLUDING ITEMS

Future Orientation of FAO's Work in the Region	41
Adoption of Report	41
Closing Ceremony	41
Invitation to the Fourth FAO Regional Conference for Africa	42

III APPENDICES

I List of Participants	43
II List of Documents	54
III Introductory Statement by Dr. H.C. Pereira - FAO Consultant	56
IV Summary of Recommendations	62

I. INTRODUCTION

Organization of the Conference

1. The Third FAO Regional Conference for Africa was held in Africa Hall, Addis Ababa, Ethiopia, by the courtesy of the Imperial Government of Ethiopia, from 3 to 15 September 1964.

2. The Conference was attended by delegations from the following countries:

Burundi	Mali
Cameroun	Mauritius
Chad	Morocco
Congo (Leopoldville)	Nigeria
Dahomey	Senegal
Ethiopia	Sierra Leone
France	Togo
Gabon	Tunisia
Ghana	Uganda
Ivory Coast	United Kingdom
Kenya	United Republic of Tanganyika and Zanzibar
Liberia	Upper Volta
Madagascar	

The following countries were represented by observers:

Holy See	Poland
Malawi	Union of Soviet Socialist Republics
Northern Rhodesia	United States of America

Observers from the following organizations were present:

United Nations (including TAB and Special Fund)
Economic Commission for Africa (ECA)
International Bank for Reconstruction and Development (IBRD)
International Labour Organization (ILO)
United Nations Education, Scientific and Cultural Organization
(UNESCO)
United Nations Children's Fund (UNICEF)
World Health Organization (WHO)
European Economic Community (EEC)
International Federation of Agricultural Producers (IFAP)
Organization of African Unity (OAU)

3. The names of the delegates, observers, and the FAO staff in attendance are given in Appendix I to this report, which also lists the officers of the Conference.

Opening of the Conference

4. The Conference was opened by Dr. B.R. Sen, Director-General of FAO, who welcomed the delegates to the Conference and expressed his gratitude to the Imperial Government of Ethiopia for the hospitality it had offered. Dr. Sen pointed out that the Conference was convening at a critical phase of Africa's history inasmuch as the expectations which had been aroused by the accession to independence of most of the countries of the region

implied heavy responsibilities for the Governments of Africa and required great efforts to fulfil them. The Director-General stated that FAO was prepared to help in these efforts to the best of its ability and expressed the hope that the present Conference would be a significant step in the march towards Africa's agricultural development.

5. The Conference then heard a message from His Imperial Majesty, Haile Selassie I, Emperor of Ethiopia, in which, after welcoming the delegates and the Director-General of FAO, he stressed the importance of agriculture in the economy of Africa. Eighty percent of the African population derived their subsistence from agriculture and most of the capital required for the expansion of the other sectors of the economy had to be produced by agriculture. This Conference's mission was to find the means whereby the standard of living of over 250 million Africans could be raised and their nutritional level improved. He expressed the view that these objectives might be reached much earlier than one might expect; political developments over the last few years had shown that concerted efforts could lead to rapid achievements. While success or defeat would depend on the Governments and the people of Africa, His Majesty pointed out that they were not alone in this endeavour. They could count on the friendship and assistance of many countries which shared their ideals, as well as on the advice and help of the international organizations, among which FAO had a very special place, since it had been created to improve agricultural production in the developing countries. He particularly praised the Freedom from Hunger Campaign, which had contributed substantially to create a consciousness of the abnormal situation of poverty and hunger which persisted in many places. He also referred to the World Food Program as an important contribution to the improvement of the food situation.

6. His Imperial Majesty concluded by expressing the hope that the debates would lead to constructive and practical decisions to deal with the many important matters included on the agenda.

7. The inaugural speech which followed the Emperor's message was made by H.E. the Minister of Agriculture of the Imperial Government of Ethiopia, Ato Akalework Habtewold. The Minister welcomed the delegations attending the Conference, and in particular the delegations of the United Republic of Tanganyika and Zanzibar, Uganda and Kenya, who were attending an African Regional Conference in their own right for the first time. He stated that Ethiopia had been host to many FAO meetings and was therefore well aware of the Organization's activities and achievements. He paid a special tribute to the role played by Dr. B.R. Sen, Director-General of FAO, in reorienting the Organization's programs to make a greater contribution to agricultural development.

8. The Minister considered that African agriculture was confronted with two main problems at the present time. The first of these was the need for increasing food production not only to keep step with the population growth but also to improve nutritional levels. Great efforts were necessary in this respect because it was expected that a total annual increase in food production of 4.1 percent would be required in the future, whereas the annual increase over the past decade had only been 1.6 percent. He felt that the technical basis for achieving this goal was available, but the African countries had to determine the practical methods best fitted to their conditions and limitations.

9. The second question was the contribution agriculture must make to sustain the growth of industrialization by increasing export earnings. This problem had become particularly serious because export commodities had suffered price deterioration, while there had been a simultaneous upward trend in import prices of industrial products. An improvement of this situation required the diversification of Africa's exports and changes in the existing structure of the world market. In this latter respect he referred to the significance of the United Nations Conference on Trade and Development.

10. The Minister stressed the importance of outside technical and economic help for agricultural development and pointed out that such aid must be complemented by a greater mobilization of resources by the African countries themselves. In relation to aid, he underlined the vital role FAO could play in the application of science and technology in raising productivity and decreasing costs in agriculture. The Minister emphasized the importance of the Freedom from Hunger Campaign as the best means of creating an awareness of the problems of hunger and malnutrition. He also underlined the role of the World Food Program in agricultural development.

11. The Minister concluded by assuring the Conference of Ethiopia's continued support of FAO's programs in general and of the decisions which the present Conference was expected to adopt.

12. In reply to the host Government, the FAO Regional Representative for Africa, Chief Akin Deko, expressed his satisfaction that the Conference was taking place in Ethiopia, a country which had always been a symbol of Afro-Asian solidarity and a bastion of African unity. He expressed the hope that the Conference would be fruitful and rewarding to all the participating Governments.

13. The Conference was then addressed by Mr. Robert Gardiner, Executive-Secretary of the Economic Commission for Africa. He stated that FAO and ECA had many interests in common and that close cooperation between the two organizations was essential in view of the intimate relationship that existed in practically all African countries between agricultural and overall economic development. Agriculture was still almost the only producer of export earnings. Furthermore, in order to detach workers from their traditional sources of subsistence, there must be more and better food. Mr. Gardiner made special reference to the problems related to animal production, a field in which he felt there was tremendous scope for development, not only because meat consumption was very low in Africa but also because there were opportunities for exports of livestock products of which Africa should take advantage. Mr. Gardiner then briefly summarized the main activities of the Joint FAO/ECA Agriculture Division, which provided an important link between activities in agriculture and industry.

14. Mr. Gardiner concluded with an appeal that every effort be made to move faster and to coordinate all the activities and resources which were being put into the development of Africa, not only by international organizations but also by governments on a bilateral basis. This was essential, he said, in order to have some hope of coping with the population increase of over 200 million which was to be expected in the next twenty years.

15. The opening ceremony concluded with a statement by the newly-elected Secretary-General of the Organization of African Unity, Mr. Diallo Telli Boubacar, who welcomed the opportunity the Third FAO Regional Conference

for Africa offered to establish close relationships between FAO and the newly-created OAU, in view of the many fields of interest the two organizations will have in common once the latter started developing its program. He paid tribute to the important activities which FAO and other international organizations were carrying out in Africa and pointed out the need for close coordination and cooperation. He concluded by stressing the importance of the movement of African unity, which was essential in accelerating development through concerted effort.

16. His Imperial Majesty Haile Selassie I, in addition to addressing a message to the Conference, honoured it by graciously inviting all participants at a reception given in the Jubilee Palace, Addis Ababa, on Saturday 5 September, 1964.

Election of Officers and Adoption of the Agenda

17. At its first plenary session the Conference elected as its Chairman, His Excellency Ato Akalework Habtewold, Minister of Agriculture of the Imperial Government of Ethiopia and leader of the Ethiopian delegation to the Conference. All heads of delegations of member countries were designated as vice-chairmen.

18. The Conference adopted the following agenda:

INTRODUCTORY ITEMS

1. Opening of the Conference
2. Election of Chairman and Vice-Chairmen
3. Adoption of Agenda

THE WORK OF FAO IN AFRICA IN RELATION TO THE FREEDOM FROM HUNGER CAMPAIGN, THE UN DEVELOPMENT DECADE AND THE FOOD AND AGRICULTURE SITUATION

4. The Food and Agricultural Situation in Africa
 - (a) A policy statement by the Director-General
 - (b) Country Statements
5. Report on Action by FAO in the Region

MAJOR POLICY QUESTIONS OF FOOD AND AGRICULTURAL DEVELOPMENT IN THE REGION

6. World Food Congress and Future Direction of the Freedom from Hunger Campaign
7. Government Measures to Promote the Transition from Subsistence to Market Agriculture
8. Measures for Enlisting more Active Participation of the People in Rural Development
9. Application of Science and Technology to Agriculture
 - (a) Raising Levels of Production and Productivity
 - (b) Improving Processing and Utilization
10. Regional and World Economic Considerations bearing on African Agricultural, Fisheries and Forestry Planning and Development
11. Foreign Aid in Food and Agriculture; Organizational and Administrative Aspects

CONCLUDING ITEMS

12. The future Orientation of FAO's Work in the Region
13. Adoption of the Report

II. SUMMARY OF PROCEEDINGS

THE WORK OF FAO IN AFRICA IN RELATION TO THE FREEDOM FROM HUNGER CAMPAIGN, THE UN DEVELOPMENT DECADE AND THE FOOD AND AGRICULTURE SITUATION

The Food and Agricultural Situation in Africa

(a) Policy Statement by the Director-General

1. The Director-General began his statement by saying that the FAO Regional Conference for Africa had established itself as the highest policy meeting on African agriculture. As such, it had to review the agricultural situation in the region, identify the obstacles to integrated progress within the framework of overall economic and social development plans, and find solutions to the many problems and the means of coordinating all the efforts necessary to put them into practice. The broad indications contained in country statements, together with the outcome of discussion on the major policy questions on the agenda, would assist him in his general orientation of FAO's future programs.
2. The Director-General pointed out that the development of the food and agricultural situation in Africa appeared to be far from satisfactory, since increases in production had been barely sufficient to keep up with the growth of population and there had been few signs of any nutritional improvements. Earnings from agricultural exports had risen only slowly, while considerable foreign exchange had had to be spent on food imports. The deterioration of the terms of trade had made the situation even more serious. Since 1963 it was true that there had been a sharp rise in the prices of a large number of agricultural commodities, influencing favourably Africa's export situation; but he feared that these changes might not be of a long-term nature and they would certainly not justify any slackening in the efforts towards agricultural development. This matter had been the central theme at the United Nations Conference on Trade and Development and was an important subject on the agenda of this Regional Conference.
3. The Director-General emphasized the importance of the aspect of agricultural development which had been called the transition from subsistence to market agriculture and was the main theme of the meeting. It had been the subject of an FAO/ECA Expert Meeting, the results of which were to be examined by this Conference in formulating a policy which would accelerate this transition. This was necessary to increase foreign exchange earnings and improve food availability for the rapidly growing urban populations as well as to release workers and resources to sustain industrialization. The Director-General took this opportunity to point to other fruitful activities which had been carried out jointly by FAO and ECA and expressed the conviction that cooperation would become increasingly effective. He also hoped that similarly constructive relations could be established with the newly created Organization of African Unity.
4. The Director-General considered that agriculture was not yet playing its full part in the economic development of Africa and this fact should be taken into account throughout the discussions at this Regional Conference, in seeking for solutions. He considered that the first step in improving the position would have to continue to be the formulation of overall plans for economic development, with agriculture's participation carefully integrated. For this reason he had put special emphasis on

agricultural planning in FAO's work in Africa, from the Mediterranean Project and the African Survey Project onwards, and including cooperation with the new Institute for Economic Development and Planning, the creation under the Regular Program Technical Assistance of a task force of agricultural planning economists, and, at the national level, the Nigerian Survey. Emphasis had also been placed on statistics, in view of the unsatisfactory situation in this regard throughout the region.

5. While attention to planning and pre-investment surveys continues to be essential in providing a sound foundation for development, the Director-General considered that the time had now come for a further and more decisive step forward: the follow-up of such work at the practical, productive level. This required a much greater flow of financial assistance and a greater mobilization of internal resources. In connection with the first, he pointed to the urgent need for adequate coordination of the still scarce resources available, so as to avoid waste and duplication. He also referred to the recent agreement between FAO and the International Bank for Reconstruction and Development, which he expected would make a major contribution to linking technical and financial assistance. Under this agreement five missions had already been sent to Africa. He also mentioned the World Food Program, which was experimenting with the role that food can play in promoting economic and social development by mobilizing unused man power. Under this program, 42 projects, involving \$26 million, had been submitted from Africa, half of which had already been approved. He expected the experiment to give the desired results and hoped that it would be extended and enlarged.

6. In regard to creation within individual countries of the machinery to make greater use of available "know-how" and resources, the Director-General pointed out that the implementation of plans required corresponding improvements in the institutional framework. It was necessary to relate agricultural education and training facilities to the man power requirements of development plans, and to establish adequate extension services. FAO had established a Special Program of Agricultural Education and Training in Africa, of which African countries were making increasing use in helping them in this task.

7. The Director-General stressed the need to take account of the social factors of agricultural development. In this regard he referred to the future direction of the Freedom from Hunger Campaign in the region. He recognized with satisfaction that the basic purposes of the Campaign were being more generally understood by the peoples of Africa and that governments were increasing the activities related to it; but he felt that there was still a long way to go before all countries were able to achieve the active cooperation of every important sector of the population on their National Committees. He reminded the Conference that the World Food Congress had asked countries to place their National FFHC Committees on a continuing basis until final victory is won in the battle against hunger. The last session of the U.N. Economic and Social Council had stressed also the importance of the continued fight against hunger. Within the framework of the Campaign, the Director-General also referred to the Young World Mobilization Appeal, which aimed at mobilizing the energies of youth. Finally, in relation to the FFHC, he sought the views of the Conference on the desirability of introducing changes in the structure, functions and purposes of Regional Conferences, so that they could provide a platform on which all interested groups could debate the region's present and future agricultural policies.

8. The Director-General explained that in his judgement, and with the guidance of the Conference and Council, FAO's program of work should be strengthened in the following directions, so as better to assist developing countries:

- (i) methods to accelerate economic growth by the application of science and technology;
- (ii) regulation of trade to assist development;
- (iii) greater involvement of people in efforts to fight hunger, malnutrition, poverty and want.

Against this background he was now giving particular attention to the preparation of an Indicative World Plan for agricultural development, which should provide a meaningful framework for integrating FAO's efforts with those of the developing countries themselves. The Plan would attempt to establish production, consumption and trade targets, which in turn should become the starting points for policies and programs aimed at achieving these targets. While considerable time would be required to develop such a Plan, he hoped that a global framework could be submitted to the Second World Food Congress and serve as a focus for discussions, and he intended to include provisions for this work in the budget for 1966/67.

9. The Director-General referred to the need for FAO to better fulfil its role in promoting the rational utilization of fishery resources, and he indicated that proposals would be submitted to the Thirteenth Session of the Conference. While there have been some signs of a break-through on this front, fisheries was still making only a small contribution to human nutrition and economic development. He expressed the hope that this Regional Conference would make specific recommendations on this matter.

10. The Director-General referred to the risks of a one-sided approach to land-use, and to the need for an integrated and inter-country approach, particularly where large-scale river-basin development and similar schemes were concerned. Solutions must be found through the cooperative effort of all interested technical services, and coordination between the affected countries, bilateral aid and international organizations. He stressed the far-reaching influence of human action on ecological processes, which in turn affected the future of natural resource productivity, particularly important on marginal lands which cover so much of the African Continent. In this respect he underlined the potential presented by the wildlife of parts of the Region on lands as yet unsuited for crops and domestic animals.

11. In conclusion the Director-General requested the Conference to study his proposals carefully. He expressed the hope that they would be endorsed since he was convinced that there was an increasing awareness of the urgency of the task confronting Africa.

(b) Review of the Current Situation in the Region

12. The Conference heard statements by almost all delegations in which they referred to the most important aspects of agricultural development in their countries over the past two years and to the measures they were taking to accelerate development. The statements dwelt especially upon the major obstacles that countries had encountered in planning and implementation, and pointed to the need for concerted policies on the national and international levels to overcome them. The Conference felt that the debates which were to follow on the specific agenda items should be guided by the policy indications contained in these statements as well as in the introductory remarks by the Director-General of FAO. The following is a summary of the major points raised.

13. With regard to planning, the Conference noted that almost all countries of the region have agricultural development plans ranging from two to ten years, the objectives of which were broadly similar, and aimed at increased and more diversified production at lower costs and of better quality. One of the primary aims, however, common to nearly all countries, was the improvement of the balance of payments. In relation to planning, the Conference also expressed great concern about the almost general absence of accurate statistics on agricultural production and in particular on production of food crops and livestock which, together with the scarcity of basic surveys of resources, was an important handicap. The Conference noted, further, that the means and priorities by which countries sought to achieve their objectives varied greatly and therefore thought that a full exchange of views was of great value to compare policies and experiences and to choose those most applicable to the local conditions in each country.

14. Closely related was the problem of investment. The Conference agreed that a greater mobilization of internal resources for investment purposes was necessary, as well as the adoption of political, economic and fiscal measures to encourage foreign capital investment. Stress was laid on the need for investment policies which would facilitate such flow and great satisfaction was expressed at the increased cooperation between FAO and the IBRD, which indicated the increased interest of the latter in agriculture as a field offering possibilities of investment.

15. Another problem of basic importance was the one related to trade and in this connection all the delegations noted the deterioration of the terms of trade, unfavourable to tropical countries which produced primary agricultural products. While some delegations suggested that increased production and lower costs would remedy the situation, and others favoured the elimination of customs barriers as a means of increasing outlets, all expressed the hope that remunerative prices would be paid by the importers. The establishment of a United Nations Trade and Development Board, as recommended by the recent U.N. Conference on Trade and Development, was welcomed as a major step forward. The Conference felt that FAO should play its proper role in relation to this Board by carrying out, among other tasks, that of acting as "watch-dog" for the developing countries in matters of agricultural trade. It suggested that the matter of increased processing of local products should receive particular attention in the debates. It was a vital element in promoting transition from subsistence to market agriculture, and could be a step towards increased industrialization and employment and a contribution towards improvement of the international trade position. It also underlined the great importance of regional groupings for purposes of trade and regional or sub-regional planning of agricultural production and industrial development. Special stress was laid on the need for increased inter-African trade, to the

stimulation of which FAO should contribute. A number of delegations stressed the need to expand domestic production to reduce the heavy drain of foreign exchange for food imports, largely from developed countries, though it was agreed that such policies should not be carried to an extreme or to the point where they hindered mutually advantageous intra-regional trade.

16. There was full agreement that progress was impossible without adequate changes in the institutional framework within which development was to take place, and it was recognized that the present situation in Africa in this regard was far from satisfactory. Much emphasis was placed on the role of cooperatives. This form of institution had been widely accepted in Africa and offered possibilities of further expansion.

17. Inadequate marketing facilities were stressed as a major obstacle to increased production. Many countries were establishing new marketing boards, including some for the marketing of perishable foods, or were promoting improved marketing by other means, notably through the establishment or encouragement of farmers' cooperatives. The Conference also referred to the lack of storage facilities.

18. Considerable attention was paid to the problem of land tenure, which was considered to be one of the major roadblocks to the effective application of all the other measures required for accelerated development. There was, however, considerable divergency in the forms of land tenure being adopted. Some countries were establishing freehold tenures with secure titles, while others were experimenting in cooperative farming, collectivization or State farms. It was recognized that the situation in each country required the solution best adapted to it, but that in any event this question should receive high priority in development plans.

19. Other important pre-requisites to agricultural development were research, extension and education. While for some time it had been possible to rely on experience from abroad and on foreign staff, there could be no doubt that all three of these institutional aspects required adaptation to local conditions, although this should not imply isolation from outside sources from which knowledge could be derived. With regard to training, the Conference suggested considering requirements at all levels and stressed particularly the need for greater numbers of middle and lower grade staff which could best be trained locally. In this connection, the Conference urged FAO to make an inventory of the facilities for training and research in agriculture in the Region. As a last point in relation to agricultural institutions, the Conference underlined the importance of adequate credit programs which were essential for increasing production, particularly when dealing with settlement programs or newly established farmers generally.

20. As pointed out when referring to planning, the increase and diversification of crop production was considered as of the highest priority, but countries agreed that also on the technical side considerable gaps in knowledge existed and presented an obstacle to progress. Consequently it pointed to the need for countries to adopt policies for the application of science and technology which should attempt to establish clear and precise priorities for all the technical improvements coming under this heading. Reference was made to the need for proceeding cautiously in the application of these measures, through prior study of all the technical, economic and social consequences which would result from their adoption, particularly in regard to motorisation.

21. It was agreed that fisheries and forestry were still at a low level of exploitation in most of the African countries, whereas they could offer important contributions to human nutrition, to export earnings and to industrialization. The question was particularly one of rationalizing exploitation through improved technology and research, the establishment of appropriate, specialized government services and similar measures.

22. It also appeared essential to make improvements in the animal production sector relating to the fight against disease, feeding and selection. The exploitation of wildlife was of concern to delegates from countries having large areas of land unsuitable for agriculture and stock raising.

23. The Conference recognized that planning had to be carried out within a clearly established framework in which particular stress should be laid on the improvement of the nutritional situation of the population, while it felt that in many cases this objective had received a relatively lower priority than, for instance, planning for export. There could be no doubt that the nutritional problems of the African countries, especially inadequate protein nutrition, were most serious. They were aggravated by large-scale migration into urban areas, the problem of refugees and the generally low income in areas just emerging from subsistence economy. Among the remedies, the diversification and improvement of production and the better storage and utilization of food were mentioned, and the FAO/UNICEF applied nutrition projects were considered important examples. It was pointed out that efforts in this field should include school feeding programs, nutrition education and home economics.

24. As a logical sequence to the nutritional problems, the Conference underlined the role of the FFHC, which it recognized as an important means for increasing world-wide awareness of the problems of hunger and malnutrition. The Conference expressed its satisfaction at the wide range of activities that had already taken place and made reference to the enthusiastic response of the people. It appealed to FAO and to the national committees to continue their efforts and to highlight the Campaign with special events, such as had taken place during the World Freedom from Hunger Week. It appealed to countries to strengthen their FFHC National Committees, widen their composition to reflect an inter-disciplinary approach, and put at their disposal the means to carry out their tasks effectively. Finally, the Conference expressed full support for the Freedom from Hunger Declaration and the conclusions of the World Food Congress.

Report on Action by FAO in the Region

1. The Regional Representative introduced document ARC/64/3 which contained a brief presentation of FAO's major activities in the region over the past biennium, highlighting the points which he thought required special consideration by the Conference, particularly those which were not to be considered under specific agenda items, such as animal production and protection, statistics, nutrition and fisheries.

2. The Conference discussed some of the administrative and organizational problems which had arisen in regard to FAO's activities in Africa. Regarding the location of the FAO Sub-Regional Office for the East/South zone, it was informed that a meeting of the countries concerned would be held immediately after the present Regional Conference, to supply the Director-General with the basis for a decision.

3. On the subject of the quality of FAO field personnel, the Conference was informed that FAO would continue to pay attention to the selection of experts with such qualifications as are required for their particular field assignments, both in respect of their level and their experience of local or similar conditions. On the matter of visits by Regional and Headquarters Staff to countries of the Region, the Director-General had already instructed that such visits should be adequately planned, coordinated wherever feasible, and agreed upon with the governments concerned.
4. In agreement with the Regional Representative of FAO for Africa the Conference recommended increased and proportionate recruitment of English and French-speaking Africans for the technical and administrative staff of the international organizations of UN, and particularly FAO. To this effect, the Conference hoped that as far as possible, provision would be made for the high-level training of such African personnel so that they could be recruited both at the directive and the technical level.
5. The Conference particularly welcomed the FAO/IBRD cooperative agreement, which it considered of great significance in the preparation and appraisal of agricultural projects to be financed by the IBRD and recommended investigation of the possibilities of establishing similar joint programs with other institutions.
6. This discussion was followed by brief presentations by FAO's technical staff on the subjects listed in paragraph 1 above.
7. Animal Production and Protection. The Conference noted with satisfaction the report of the First FAO African Regional Meeting on Animal Production and Health and endorsed its recommendations, but requested that the Emergency Fund for the Control of Animal Disease be not limited to Africa. With reference to the outcome of discussions at this meeting the Conference recommended that the campaign against rinderpest, at present confined to Western Africa from the western half of Chad, should be extended to all the infested areas in Africa; that wherever these have not already been made, studies be undertaken to determine the type of equipment and the measures necessary to increase slaughtering in the production zones and the export of carcasses to areas of consumption; that consideration be given to inter-governmental agreements for the supply of meat, due account being taken of the relevant economic and fiscal problems and the need for special health regulations; and that FAO make its experience available to those countries interested in such agreements. With further reference to animal health, the Conference emphasized that sanitary protection should be considered on a continental basis, particularly with regard to the need for quarantine regulations.
8. The Conference noted that the Organization was considering the problem of livestock production in all its aspects from production to marketing, such as was being done in the East African Livestock Plan. It was hoped that a similar type of project could be started in the near future in the Lake Chad area, in which Niger, Nigeria, Chad and Cameroun would be interested. The Conference also noted with satisfaction the surveys which had been carried out on milk production and distribution under the FFHC, which had also provided experts in poultry production, a field which could contribute comparatively quickly to improvement of nutrition of the people of Africa.

9. As far as veterinary education was concerned, the Conference was informed that there existed in certain countries and in Mali in particular, specialised educational and training institutions. The Conference considered that efforts should be made to endow these institutions with the means to develop on the one hand a higher necessary level of education and on the other, an inter-African status which would allow other countries with similar conditions to take advantage of these facilities.

10. Statistics. The Conference stressed the importance of collecting reliable statistical information on agriculture for purposes of formulating and implementing agricultural development plans. In view of the urgency of achieving a rapid improvement in the status of food and agricultural statistics, the Conference felt that high priority needed to be given to statistical work as an integral part of agricultural development projects in individual countries.

11. The Conference noted the accomplishments of the African Commission on Agricultural Statistics and its working groups. It endorsed the recommendations of the Second Session of the Commission which was held in Addis Ababa from 24 August to 1 September 1964. In addition it recommended that FAO undertake a study on the surpluses and scarcities in food production occurring in different parts of the region at various times of the year. Particular emphasis was placed on the value of statistical training and the Conference recommended that FAO provide greater assistance in this vital sector by making available larger numbers of specialized training advisers and fellowships, an effort which should lead eventually to the establishment of a Regional Research and Training Institute in Agricultural Statistics, should the inventory of the facilities for training and research in agricultural subjects, requested by the Conference, demonstrate its usefulness.

12. In considering the personnel requirements for carrying out agricultural surveys, the Conference concurred with the findings of the second session of the Commission on Agricultural Statistics that agricultural field staff were in many ways best suited for undertaking survey enumeration work under the guidance of qualified agricultural statisticians. In spite of the manifold duties of agricultural extension workers, the Conference felt that fullest consideration should be given to suitable integration of agricultural field work and agricultural survey enumerations at different levels. The Conference welcomed the growing tendencies in African countries to set up specialized sections on agricultural statistics within Ministries of Agriculture or other appropriate Ministries.

13. Nutrition. The Conference took note of the establishment of the FAO/WHO/CCTA Food and Nutrition Commission for Africa, whose task was to collect and disseminate information on nutrition activities in the region.

14. The Conference expressed concern about the employment of the beneficiaries of fellowships after they had completed their training and recommended that machinery be set up for following the progress of these fellows and assess the usefulness and suitability of the training they had undergone for the jobs they were subsequently called to fill.

15. The Conference stressed the need to place more emphasis on home economics, both in regard to training at all levels, and to work with the rural masses. It recommended that countries consider the possibility of undertaking more national seminars and workshops in this field. The Conference noted that FAO was devoting attention to the effect of rapid

urbanization and industrialization on nutrition. The problem was particularly acute with regard to young migrants, whose nutritional status was adversely affected by insanitary living conditions and insufficient employment at low wages. The Conference recommended further study of the situation, and measures for avoiding a repetition of the problems which had arisen elsewhere. The Conference felt that a high priority should be assigned to nutrition as such, which should be given an adequate place in development plans and be placed under the direction of high level authorities.

16. The Conference noted with pleasure the joint action being taken between FAO, WHO, UNICEF, other interested UN specialized agencies and bilateral agencies, in the matter of improving nutrition and food production through the provision of experts, surveys and training facilities.

17. Fisheries. The Conference was informed of the fishery situation in Africa, the main characteristic of which was that Africa's contribution to the world production of fish continued to be very limited. While Africa had only comparatively small resources of bottom fish it was more favoured with regard to surface fish. Good possibilities existed also for the development of inland fisheries.

18. The Conference was reminded of the recommendation of the Twelfth Session of the FAO Conference to the effect that FAO should fully assume its role in fisheries development. The Conference felt that this recommendation was particularly relevant in regard to Africa.

19. The Conference took note of the regional and group-country projects in the field of fisheries which FAO was carrying out or planning.

20. In the light of the request of the Director-General in his opening statement, the Conference examined the question of the strengthening of the Fisheries Division of FAO so that the Organization could properly fulfil its role of assisting developing countries in the development of their fisheries resources. It expressed its general support for the proposals of the Director-General.

21. Convinced of the need for making every effort to ensure that fisheries in Africa could play an increasing role in nutrition and the economy of its population, the Conference urged increased regional and national action in this field.

22. The Conference requested the Director-General to investigate the possibility of establishing a Fisheries Commission for Eastern Africa, and recommended the appointment of a Fisheries Officer for that sub-region.

23. The Conference expressed concern at the shortage of fisheries research and administrative personnel in all African countries. It considered this shortage to represent a severe limitation to fisheries development and recommended that FAO prepare an inventory of existing training facilities which should then be widely distributed to governments. It further recommended in this context that if the need became evident, a specialised school should be created for the whole region, for the training of personnel at all levels and in all specialities, in cooperation with existing institutions in Africa and abroad. With regard to fisheries research, the Conference considered that applied research had too small a place in the programs of the relevant institutions. It recommended that such research be expanded and that FAO lend its assistance to this endeavour. It felt

that research was particularly important with regard to stock assessment on trawling grounds, with a view to establishing international management procedures which took full account of the interests of the African countries, and could serve as a basis for the formulation of new policies to ensure utilization by the African countries themselves of the fisheries resources of the African coastline.

24. Mediterranean Project. The Conference noted and endorsed the conclusions of the Second Meeting of the Mediterranean Development Project in Nîmes, France, from 6 to 14 May 1964. It requested the Director-General to take the necessary steps regarding the collection and analysis of documentation and recommended to Governments and organizations concerned to establish the contacts necessary for setting up training institutes, marketing organizations, and for the financing of development projects.

25. The Conference also noted the measures taken by the Director-General to extend the benefit of the experience gained in the course of the preparation and implementation of the Mediterranean projects to the entire African continent. As a follow-up to the initial studies, - the national surveys and the report on the "African Survey", - further surveys had been carried out, particularly in Nigeria and Northern Rhodesia. Mention was also made of the report on economic integration of Senegal-Gambia. The task force established by FAO and financed by its Regular Program had also, at the request of African countries, carried out a number of surveys of a more limited nature.

26. With regard to pre-investment projects based on the Mediterranean pattern of integrated regional development, a concept which had been adopted both by the Director-General of FAO and by those in charge of the UN Special Fund and of the IBRD, the Conference discussed at length the agricultural development project for the Senegal valley, which affects four countries and is linked to an important hydro-electric power and industrial development scheme. Other projects also considered were integrated development of the Chad basin which also concerns four countries, and the livestock industry survey in East Africa, which should lead to a series of integrated projects. The Conference noted that some of these projects, formally requested by the interested countries, were prepared by FAO with the UN Special Fund in close collaboration with the United Nations and ECA.

27. The Conference noted with satisfaction that the Director-General had extended to the whole of Africa the range of measures now available to member governments who wish to take advantage of these new methods and possibilities for development.

MAJOR POLICY QUESTIONS OF FOOD AND AGRICULTURAL DEVELOPMENT IN THE REGION

World Food Congress and Future Direction of the Freedom from Hunger Campaign

1. In considering Doc. ARC/64/4 and the introductory statement to this item made by the Campaign Coordinator outlining recent events in the development of the Campaign and the challenges and possibilities which lay before the Region, the Conference warmly endorsed the initiative of the Director-General in launching the Freedom from Hunger Campaign, and commended the nobility of its concepts, the global basis on which it is being pursued, and the essential new forces which it was bringing to all development efforts. The Conference agreed that the Campaign's vitality and

usefulness came in part from its program for the direct involvement of people in all types of development actions, its adaptability to the possibilities and situations within each country and at the same time its rallying of world forces, influence and action directed at the common world evils of hunger, malnutrition and underdevelopment.

2. In considering several questions arising out of the actions of the World Food Congress on which the Director-General had sought advice, the Conference supported the recommendation of the XII Session of the FAO Conference that the Director-General should pursue, as rapidly as possible within the means at his disposal, the initiating of an International Agricultural Development Institute. It was stressed that there should be full collaboration of the proposed international institute with the Regional Institute for Economic Development at Dakar. In this connection it was noted that arrangements had been made for students at the Dakar Regional Institute who wished to specialise in agricultural planning to attend a course on agricultural planning at Rome in 1965, after completing their course on general planning. It was suggested that a similar arrangement might be made when the proposed international agricultural development institute was established, though this should not preclude the admission to the international agricultural development institute of other qualified African participants. Stress was laid on the value of training students from all parts of Africa at the same courses in order to promote an exchange of views and an understanding of the problems of each other's countries by African planners.

3. The Conference also drew attention to the shortage of middle-grade professional staff in the region to assist in agricultural development planning, and requested the Director-General to consider means of providing increased facilities for such training, including in-service training, possibly on a sub-regional or national basis.

4. Related to the above recommendation the Conference noted with approval the Director-General's preliminary proposals for an Indicative World Plan for agricultural production, trade and development, and stated that the training of African technicians at all levels would be of material assistance in working out the regional implications of this Plan. It was noted that a proposal had been made to ECA for the preparation, in cooperation with FAO of an agricultural program for Africa; and it was suggested that this might take the form of the section of the Indicative World Plan relating to Africa. It was stressed that the World Plan would need to be based on the objectives which Member Governments have set for themselves and that such a Plan would have a profound influence toward increasing the tempo of development action within the region and on the future course of the work of FAO, both generally and within the framework of the FFHC.

5. The Conference applauded the Director-General for his courage in developing Campaign mechanisms, recognized that already Campaign concepts and methodology were having a significant influence on people who have enthusiastically responded to the opportunity to participate directly in action. Illustrations as to how the Campaign had been used in regional and community actions came from many countries in the region while other countries outlined plans for future activities. To ensure that this important action continues, the Conference recommended that the FFHC be placed on a permanent and continuing basis within FAO, that its scope be expanded to include all aspects of FAO's work, and that governments undertake the

responsibility of providing funds in the FAO Regular Budget to enable the Director-General to meet the administrative and other costs of properly conducting the Campaign.* To help ensure a vigorous growth for national Campaign Committees within the Region, which the Conference agreed should be on an effective and continuing basis, the Conference requested the Director-General to provide as soon as possible staff to assist Committees in Africa and to increase inter-Committee cooperation. In seeking ways to help National Committee secretariats, particularly in their initial stages, the assistance of other Committees, including those in Africa, could be obtained by the loan of Committee officials or by visits of consultants or specialists from Committees which are particularly able to help new Committees plan their organization and program and the extension of their work.

6. The Conference recognized how closely related education and agricultural improvement must be within the Campaign. It agreed therefore that as rapidly as possible, educational materials should be adapted for local use, and that agricultural, nutritional and food concepts should be introduced into school curricula. It was recognized that much work had to be done to change the attitudes of the African people towards agricultural life and this included the necessity to change teachers' attitudes and teaching methods. Education can help to enhance the prestige of rural life and with programs and projects aimed at rural improvement strong efforts can and should be made to improve the lot of the villager and to help stop the migration to cities, already a serious factor in development.

7. In the field of action projects, the important element of the people-to-people contact was recognized by the Conference, but it wished to draw the Director-General's attention to the need for increasing help from peoples' organizations in relation to the growing demands. At the same time, governments should make provision for funds to enable FAO to handle requests for FFHC action more rapidly. The Conference agreed that national Campaign Committees are and can be important coordinating mechanisms in assisting the peoples' organizations in the developed and the developing countries to work together both bilaterally and within a multilateral framework with assistance from FAO and its regional and field personnel. But in this regard, it was stressed that the Campaign owed its vitality to its freedom, flexibility and simplicity and that steps should not be taken which would cause it to lose this important aspect.

8. The Conference warmly welcomed and fully endorsed the Director-General's Young World Mobilization Appeal, issued in June 1964, and agreed that individually and collectively the countries of the African region would seek to make full use of the opportunity which this Appeal provided to capture the energies, idealism, enthusiasm and determination of young people to share in development action and to build proper foundations for

Note: *The delegation of the United Kingdom reserved its position with regard to the budgetary implications of this recommendation and emphasised that its Government support in this context was conditional upon funds being available and to the overriding need of the next Session of the FAO Conference to allot priorities to different sections of the work that comes before it.

their own future. Much work in the region had already been done to develop national youth services and it was agreed that this experience should be shared to help countries of the region capitalise on the opportunities for building action programs with the help and assistance of young people, both during the period of the Young World Appeal and for the long-term future.

9. It was also recommended that the Director-General consider the development of a prestige publication for FAO which would appeal not only to Governments but also to the intellectual, business and industrial leaders of the world. Such a publication would contribute further to the creation of a favourable climate of opinion and increase both attention and action in the worldwide effort to enhance agricultural productivity, eliminate hunger and malnutrition and provide a better life for the people.

10. Finally, while some countries warmly welcomed the Director-General's proposal to change the character of the Regional Conferences so as to include, in future, representatives of non-governmental organizations, scientific research and educational bodies and other organizations, as well as outstanding leaders, other countries felt that the Conference should remain as presently constituted. The Director-General was requested to examine this question in more detail through his Regional Representatives so that final consultations with countries may take place well before plans for the 1966 Regional Conference are completed.

Government Measures to Promote the Transition from Subsistence to Market Agriculture

1. The Conference had before it a summary of the report of the "Expert Meeting on Government Measures to Promote the Transition from Subsistence to Market Agriculture" (ARC/64/5) which had been held in Addis Ababa in April-May 1964 under the joint auspices of FAO and ECA. The full report was also available to delegates and was extensively referred to by delegations. Three members of the original expert group were present at the Conference as ECA consultants and participated in the discussions. Delegations paid tribute to the valuable report of the expert group, and it was proposed that it should be adopted by the Conference and commended to the attention of the Governments of the Region and to the Director-General of FAO for follow-up action.

2. It was recognized that the transition to an increasingly market-oriented agriculture was fundamental to the agricultural development of the region and to raising the incomes of producers. Many delegations made it clear that the proposals of the report had already been widely adopted in their countries and described some of the measures now being implemented.

3. The Conference agreed, however, that the integrated approach adopted in the report would facilitate the planning of development measures and more coordinated action between the various Departments and Agencies involved in this field. Emphasis was placed on the need for careful planning in easing the transition from subsistence to market agriculture and in establishing priorities for the best use of such scarce resources as skilled manpower and capital. At the same time it should be borne in mind that many forms of intervention were closely inter-related. Transport, marketing and storage facilities, for instance, had to be planned in relation to one another.

4. Subsistence Farming. Subsistence farmers had not been defined in the expert report in relation to their standard of living (i.e. farmers living at the bare minimum of subsistence) but rather as farmers whose output was almost entirely for the subsistence of themselves and their families. All gradations were to be found in Africa from almost wholly subsistence producers to those whose production was almost entirely for the market. At present more than half the total output of African agriculture was for subsistence purposes.

5. Some delegates pointed out that African subsistence farmers were commonly poor and under-nourished, and spoke of the vicious circle of low productivity, poverty and malnutrition. This could be broken only by an attack directed simultaneously towards better agriculture, better health and nutrition, better education and better roads and other rural amenities.

6. There was general agreement with the expert report that much could be done quickly and inexpensively by governments to diversify the output and improve the nutrition of farmers still largely engaged in subsistence production, by assisting them for example through medium grade extension workers and elementary instruction in home economics, as well as through the distribution of improved seeds and planting material. At present the beginnings of market production were sometimes associated with a lowering of nutritional standards as farmers tended to become more specialized, e.g. giving up the growing of vegetables and selling too much of their own produce.

7. The Conference generally supported the view that a reasonably productive and diversified subsistence agriculture provided a sound foundation on which market production could gradually be built up. It was noted that an element of subsistence production gave the farmer security against adverse changes in prices, a readily available supply of food which did not have to bear the costs of transport and marketing, and the possibility of entering the market economy on the basis of crop and livestock enterprises of which he had long experience.

8. Status of Farmers. Many delegates emphasized that the status of farming and rural life must be radically enhanced to retain some of the more progressive elements within agriculture, and to check the excessive drift of population to towns where unemployment was often rife. The raising of farm incomes by increased market production and measures to improve subsistence production and nutrition were important.

9. It was also considered important to include enlightened agricultural instruction in primary education and to provide training courses for farmers. The provision of alternative employment in rural areas must be tackled urgently, for example, by the development of local crafts and by encouraging small-scale industries, particularly those servicing agriculture or processing agricultural products. Some delegations reported progress in these directions. It was agreed, however, that more should be done to utilize local labour and raw materials so as to reduce under-employment, increase incomes and diversify rural life. It was also agreed that the importance of sociological studies for the proper understanding of the problems of local people had often tended to be forgotten.

10. Demand. The Conference recognized that the transition to market agriculture depended on the rate of growth of demand. In many African countries market production was largely of export crops, and for these production often tended to develop at a faster rate than the slow growth of demand. It was thus important to widen export markets and increase the share of African exporters. There was also, however, a rapidly growing

demand for food and agricultural raw materials in the rapidly growing urban populations of Africa. In some countries, rising food imports and rising food prices indicated that this growth of domestic demand was not always matched by increased market production. In this connection FAO was requested to extend its studies of probable future demand, and to prepare a handbook of demand methodology for studying domestic and foreign agricultural commodities.

11. Incentives. The Conference generally endorsed the views of the expert report on the importance of incentives; even when demand was unsatisfied, and when credit, extension advice and other facilities were available, farmers were unlikely to increase production for the market unless they were convinced that it was to their advantage to do so. One delegate expressed the view that farmers would quickly acquire the skills needed for new types of production which were sufficiently profitable, but stressed also the need for more farm management studies, as new agronomic methods were often recommended to farmers without enough consideration of their profitability.

12. Assured and stable prices were regarded as a most effective form of incentive. Several delegations described measures being taken to give farmers greater security in this respect, though some saw difficulty in applying stabilization measures to produce for domestic markets. Reference was also made to the important effect of improved marketing, methods of taxation, and forms of land tenure on farmers' incentives.

13. Marketing. The need to develop better marketing channels both by improving existing private and cooperative systems, or through government sponsored marketing organizations, was widely recognized as an important factor in encouraging increased commercial production. In this connection the Conference took note of a series of conclusions of the first African regional training centre on the marketing of staple foods held at Nairobi in August 1964 and requested that they should receive careful consideration. In addition to recommendations designed to improve the handling and grading of such produce and to ensure better market information, the establishment of an African Marketing Commission was proposed. Its functions might include exchange of information, the adoption of common grades and standards, collaboration in plans for the better marketing of livestock, meat and other perishables which, in West Africa especially, involve several countries, and the coordination of national training and research programs in marketing.

14. Credit. Stress was laid by the Conference upon the need for credit if farmers at present handicapped by lack of capital were to increase their productivity. It was accepted, however, that for maximum benefit, credit and saving facilities must go hand in hand with extension services and marketing. Delegates endorsed the recommendation of the expert meeting that the maximum use should be made of cooperatives, local authorities, farmers' associations and village committees in the issue of credit. It was important that administrative costs be kept to a minimum and that the responsible participation of the local people themselves should be enlisted.

15. Land Tenure. The Conference also recognized that in many cases production for the market could be greatly facilitated by improvement in land tenure arrangements. This was a complex question, however, and must depend on local circumstances. While noting the rapid development of a freehold tenure in the resettlement and consolidation areas of Kenya, it was appreciated that in many countries freehold tenure was not held to be

compatible with local traditions. The security and incentive to investments generally associated with this type of tenure, however, could be achieved under modified traditional systems or under leasehold tenure. It was generally accepted, nevertheless, that the example set by Kenya and other countries in regard to cadastral surveys and registration of titles, within the framework of land use planning and resource conservation, should be considered by all countries in the region. The Conference invited FAO, in cooperation with ECA, to lend its assistance to those countries which are undertaking land reform measures.

16. Large Scale Production. The Conference noted that in order to accelerate the transition to market production, many governments in the Region were embarking upon a variety of large-scale agricultural projects. These had usually been introduced where there were large areas of productive land either unused or inefficiently utilized under traditional farming patterns. Such projects serve a number of purposes - to supplement existing food and fibre production; to produce new commodities; to demonstrate improved patterns of farming; to create employment; and to provide additional foreign exchange or the raw materials required for local industrialization.

17. There were two main types of large-scale agricultural projects. Firstly, plantations or estates with centralized control, generally employing a large labour force, which may be owned by the state, private individuals, commercial firms, cooperative societies or by the state in partnership with any of these bodies. Where a plantation is owned by the state it is usually designed to supplement the production of individual farmers rather than to compete with their activities, or to establish types of enterprise which, by reason of the capital or degree of specialization involved, were outside the scope of individual farmers. In some cases, the latter types of enterprise are subsequently sold to individual farmers or to groups of farmers, the funds thus released being reinvested by governments in the establishment of other development projects.

18. The second type of large-scale project involved group farms. There was a wide variety, but these generally involved the grouping of small units so as to provide the centralized services and sometimes management. Examples given included the Gezira Scheme of the Sudan, together with the intermediate type of project recently being developed in East Africa and other areas of the Region, notably for tea and coffee. These involved the association of a relatively large-scale nucleus estate with suitable processing and marketing facilities in conjunction with often substantial numbers of small-scale individual units grouped around it. This was recognized as a useful means of bringing to the individual producer the advantages of scale in transport, marketing, processing, managerial and technical advisory services, supplies of farm requisites and, occasionally, land clearing and cultivation.

19. The Conference noted the need for caution in the establishment of large-scale agricultural projects on account of the heavy capital commitment. The danger of costly failures, however, could be greatly reduced if thorough agro-economic and sociological investigations were undertaken and pilot schemes introduced and evaluated before any attempt was made to implement the full program. Until the long-term viability of a project had been proved, it was advisable to minimize expenditure on infrastructure, since this could seldom be recovered in the event of failure.

20. The advantages of large-scale agricultural projects were considered in relation to the possibilities of obtaining foreign aid to finance them. Two principal methods of financing them were noted: firstly, loans from bilateral and multilateral aid-giving agencies, and, secondly, investment of foreign capital in partnership with local governments. In the latter case, clearly defined arrangements should be made between governments and foreign investors to protect the legitimate rights of all parties.

21. External Aid. The Conference noted that aid-giving countries and non-governmental agencies are already playing a vital role in assisting African governments with the implementation of a large number of rural development programs, though in some instances there was room for the better co-ordination of such aid. It was agreed that regional and sub-regional projects should be expanded and ways explored whereby the additional assistance required could be mobilized and effectively used. A number of regional and subregional projects were suggested for FAO/ECA consideration, such as:

- (i) Research and Training Centres in Agricultural Engineering;
- (ii) Soil classification and land use surveys;
- (iii) Investigation and planning of irrigation and water use;
- (iv) Agricultural research generally;
- (v) Agricultural training centres for lower level extension workers;
- (vi) Expansion of scholarships and fellowships by bilateral and multilateral agencies, together with an expansion of training facilities in the developed countries from which the region currently imports trained staff.

22. Current Expenditures. It was pointed out in the expert report that many of the pre-requisites for the successful development of market agriculture were skill-intensive and called for current expenditures rather than fixed capital, though some Finance Ministries and some International Agencies usually considered fixed capital investment to be the best way of promoting economic growth. It was stressed by some delegations that to a large extent such current expenditures represented long-term investments such as the training of staff. The support of FAO and ECA was requested in order to bring this important question to the attention of multilateral and bilateral aid-giving agencies, so that assistance might be obtained for such current expenditures when they were beyond the means of receiving countries.

Measures for Enlisting more Active Participation of the People in Rural Development

1. The Conference considered that lack of widespread and active involvement of the people for whose benefit development plans are intended, was a major obstacle to rural development. It was sometimes difficult to determine whether development plans were made by "men for men or by computers for robots". Further, it was not always recognized that rural progress involved a cooperative effort of all of the people in a country - politicians, technicians and farmers; those in rural and those in urban areas; and those in government and those outside.

2. The Conference addressed itself to the question of how to induce all of the people involved to make a maximum contribution to rural and agricultural progress. Four possible steps involved in getting people to participate in the preparation and implementation of plans intended for their personal betterment and the progress of their countries were considered:

- (i) information
- (ii) stimulation of the desire to participate
- (iii) government measures to make participation possible
- (iv) creating a national climate favourable to agricultural and rural development.

3. There was general agreement that informing farmers, foresters, fishermen and the public at large of what was expected of them was a prerequisite to their participation. Government policies and plans and the roles of various groups of people in their achievement had to be made known. To this end, several governments had established or were establishing agricultural information services. FAO was requested, in cooperation with local universities and ministries of agriculture, to undertake studies of the most effective ways of organizing, staffing, equipping and operating such services. Experts, fellowships, equipment and teaching materials were also needed.

4. At least one government had initiated a farm radio program on a regional basis. This program was giving good results and the government now wished to expand it on a country-wide basis and wanted FAO's assistance for this purpose.

5. The Conference placed major reliance on agricultural extension services to inform farmers and their families of government plans and to give them specific guidance on how to introduce the new practices needed for the implementation of the plans. At the present level of literacy, there were practically no effective substitutes for personal contacts between the extension worker and the farmer, although farm radio programs merited further consideration in this connection.

6. A very active farmers' organization existed in one of the countries of the Region and played a major role in informing the farming population, as well as in all other aspects of involving farmers in the development process.

7. The potential value of National FFHC Committees, particularly in informing the non-farming population of its role in rural progress was still largely unexploited.

8. The second step in securing peoples' participation, and the crux of the problem, was stimulating the desire of the people to participate. This required first of all a thorough understanding of peoples' social and cultural characteristics, their religious beliefs, tribal customs and motivations. The incentives to which people would respond as well as the obstacles to their participation had to be determined. Only with such information at hand were the planner and administrator in a position to formulate projects and adapt approaches which would prove acceptable to the people and thus lead to success.

9. The automatic assumption that traditional practices, beliefs and taboos were obstacles to progress, to be immediately abandoned, was cautioned against. The Conference stressed the need to conduct sociological studies which would determine the reason for the existence of traditions and beliefs and thus provide a basis for adapting proposed innovations to the cultural and social framework of the people. Sociological studies should be conducted by persons familiar with the cultures to be studied so that the reliability of data could be assessed and its analysis meaningfully interpreted. The FAO publication "Fact-Finding with Rural People" could be a valuable guide in the planning and conduct of sociological surveys.

10. The delegates identified and exchanged experience on some of the measures which, through further study, were likely to prove effective in stimulating participation. Giving farmers the impression that what was to be done was at least partially their own idea, had been found to be a most effective technique in gaining active participation in the successful implementation of plans. Farmers were given the opportunity, through their farmers' organizations, cooperatives, local agricultural committees or extension services to actually participate in preparing plans intended for their benefit.

11. The Conference recommended that governments assist people in establishing their own organizations - cooperatives of various types, farmers' organizations, farm youth clubs. Through working in groups, farmers gained a feeling of strength, self-reliance and initiative which stimulated and made possible their accomplishing things which might never have been attempted on an individual basis. Farmers' organizations also made it possible for the voice of the small farmer to be heard in highest government circles, giving him the feeling that he really had a role in the development of his country as a whole.

12. Recognizing the importance of rural peoples' own organizations in bringing about widespread and active participation in rural development, the Conference requested the Director-General to study and analyze the experience of African countries in the development of new forms of cooperation; to expand and intensify assistance to governments in developing all forms of agricultural cooperatives, farm youth organizations and farmers' organizations; and to investigate the possibility of establishing, through the FAO Regional Office for Africa, a clearing house for information on cooperatives, farmers' organizations and farm youth activities.

13. The Conference considered the role of farmers' organizations in national life of such importance as to recommend that governments include representatives of farmers' organizations in their delegation to FAO Conferences. In the same context, it also noted with interest the suggestion that a Study Tour and Seminar on Farmers' Organizations, such as was held recently in Japan, might be considered for the African region.

14. An essential element in bringing about participation was gaining the farmers' confidence. Proposed projects and new methods had to be explained and demonstrated to him in a meaningful and understandable way; command and the military approach had to give way to persuasion. In all of this the extension service was considered the key element. Considerable emphasis was placed on the need to train extension workers in how to understand, persuade and teach farmers - the psychological approach. The Conference requested FAO to increase its assistance to governments in the field of extension training, giving particular emphasis to this aspect. The importance of identifying and training local leaders and progressive farmers through farm institutes and similar means was also given prominence and further FAO assistance was requested. It was also noted that extension services could be more effective in encouraging farmers' participation by adopting such measures as conducting demonstrations on farmers' own holdings rather than on government farms and by holding competitions.

15. The importance of ensuring that the benefits of a farmer's increased labour flowed to him, was stressed. Some of the proceeds from large-scale production schemes should be utilized to improve the general amenities in the farm neighbourhood and not all be invested in the city. A number of governments had found tenure reform, including giving the farmer title to the land he worked, to be of utmost importance.

16. The Conference considered the role of governments in making peoples' participation possible. Information and stimulation did not in themselves bring forth increased production. Particularly in newly developing countries where farmers were extremely poor and sometimes illiterate, the government had to lend a hand. Farm supplies and equipment, credit, technical guidance in the adoption of improved practices and use of credit, and favourable markets had to be made available. In some countries, governments provided these services while in others, farmers' organizations and cooperatives were utilized. Private and commercial agencies were also involved in some instances. It was of the greatest importance, regardless of the means employed, to ensure that all of these requirements were met in a timely and coordinated manner. This emphasized the need for efficient organization and administration of agricultural services as a whole.

17. Most countries in the Region were experiencing great difficulty in attracting and retaining people in farming and related supporting occupations; this situation gave rise to the discussion of the fourth step in achieving peoples' participation: the creation of a national climate favourable to rural and agricultural progress. The Conference agreed that extensive and strong measures had to be taken to enhance the social and economic prestige attached to agricultural pursuits. In one country, an attitude described as the "mystique of the land" had been created in official circles. All government officials, even the most senior, had a firm appreciation of the importance of agriculture and personally worked a plot of land, at least at weekends. One delegate stressed that technology alone would not keep farmers in the country, the amenities of the city had to be made increasingly available in the countryside. This proposition found wide support. The great possibilities for making life in the country more attractive through adapting teaching in primary and secondary schools to the requirements of the rural environment were noted. The Conference requested FAO and UNESCO to cooperate in conducting campaigns to make people understand the importance of agriculture. Such cooperation was in fact taking place, particularly through the medium of the FFHC. In addition to what was done in schools, rural youth organizations should be encouraged, for it was the young people who were receptive, in a formative stage, and could promptly be influenced to take up agricultural occupations and life in the country. Productivity campaigns and community development programs should also be utilized to popularize and make agricultural work more attractive.

18. Since the problem of creating a national climate favourable to agricultural and rural progress was such a vital one, involving all sectors of the economy, it was suggested that national FFHC Committees might mount campaigns with the objective of publicizing the importance of agriculture in national economies and enhancing the prestige attached to farming and related occupations.

Application of Science and Technology to Agriculture

(a) Raising levels of Production and Productivity

1. The Conference heard an introductory statement by the FAO Consultant (see Appendix III for full statement) who expressed the view that the difficult and important task of applying science to raise the productivity of the major agricultural sector in Africa, that of subsistence farming, should receive the highest priority. He suggested organising the discussion under four heads:

Resource appraisal. Here it was important to make full use of earlier surveys and to fill the gaps of these, especially for climatic factors, before undertaking further surveys. Ecological evidence is of major importance, but where this has been destroyed by subsistence agriculture it must be substituted by factual information on cropping practices and their results. Assessment of the country for new cash crops is helped by marketing organisations. If agronomic data is recorded on individual farmer's account sheets and analysed by electronic computer, important new information can be gathered. Zambia and the Agricultural Research Council of Central Africa were working together on this.

The use of scientific advances which have been locally tested and verified. Much real scientific progress already achieved under the former colonial administrations had not yet been put into practice. Soil exhaustion was probably the greatest single factor limiting production in Africa. Where science has determined what fertilizers were needed, economic administration must provide the credit, transport and storage to make the correct fertilizers available, in the subsistence areas, before the planting season.

Where scientific advice has been obtained but is not yet locally confirmed, we must not leave the burden of experiment to the subsistence farmer. Local testing, under skilled supervision, should move as early as possible from the experiment station to the plots of leading farmers. For export crops the help of large commercial organisations can be very effective.

Where difficult scientific problems require original research, a high level of planning and organisation was needed. Autonomous Research Councils, employing project teams of scientists outside the restrictions of the civil service, were doing this work in most advanced countries. In Africa, such Research Councils could offer valuable opportunities for co-operation of neighbouring states in ecological sub-regions. Successful examples are the East African Research Council serving Kenya, Uganda, Tanganyika and Zanzibar; and the Agricultural Research Council of Central Africa which serves Zambia, Rhodesia and Malawi.

2. It was pointed out that the shortage of agricultural scientists in Africa was most acute and that the numbers of African scientists now in training were too small to replace the current losses of expatriate staff. To maintain the momentum of development of productivity the Conference should appeal to developed countries overseas to lend more scientists under arrangements in which they could return to continue careers in their own countries.

3. Following the consultant's statement, delegates contributed much useful information concerning their countries and offered many constructive suggestions and recommendations for applying science and technology more effectively and quickly to the production and preservation of food and other products of agriculture, forestry and fishery.

4. The Conference recognized the importance of stepping up research in all fields of food and agriculture and recommended that the Director-General of FAO (1) give all possible assistance, through UN Special Fund and other means, to strengthening or establishing agricultural research institutions, including agricultural engineering, in individual countries or group of countries having similar ecological conditions; (2) investigate means of bringing about closer coordination and cooperation between African countries through the establishment of an African Food and Agriculture Research

Bureau to assemble and exchange information concerning African countries; and (3) explore the various opportunities for the use of electronic computers in the analysis of data needed in agricultural research and the application of science and technology.

5. The Conference referred to the recommendation of the Organization of African Unity that each African country should set up a National Agricultural Research Council to help in the coordination and planning of research for harmonious agricultural development of the African continent as a whole.

6. The Conference also noted the acute shortage of trained people in all fields of food and agriculture and the urgent need for expanding and intensifying training, and recommended that the Director-General of FAO (1) intensify action under the Special Program of Agricultural Education and Training in Africa; (2) assist countries, through UN Special Fund and other means, to strengthen or establish professional and technical education and training institutions, including farmers' institutes where rural people can be trained in modern farming methods and in ensuring their adaptation to the specific needs of the African countries.

7. Delegations emphasized the importance of land and water and grazing resources surveys, of soil studies to determine most appropriate land use and farming practices as were now being carried on by FAO in the African region, and of inventories of forest and fishery resources. The Conference recommended that FAO expand and expedite its activities in these fields throughout the African region. The Conference expressed serious concern over the obstacles which shifting cultivation placed in the path of technical and economic progress in agriculture, and recommended that FAO explore, in cooperation with the African countries, the scientific, technical and economic measures needed to overcome these obstacles created by shifting cultivation.

8. There was general agreement that at the root of shifting cultivation lies the fertility exhaustion of large areas and that fertilizers must play a basic role in raising agricultural productivity. Along with fertilizers, improved crop varieties, pest and weed control, improved cultural and irrigation practices are needed. For farmers to adopt improved practices, however, adequate credit facilities and other incentives must be provided.

9. The discussions revealed a large number of specific problems requiring applied scientific research for their solution; among which the control of grain-eating birds, losses in harvesting and storing of crops, control of water weeds (water hyacinth), infestation of soil nematodes and the urgent need for adapting modern agricultural machinery and equipment to local conditions were particularly stressed. It was noted that international control of the grain-eating bird *Quelea Quelea* was more likely to provide effective protection to crops than individual national measures and that a recommendation for initiation of international control on similar lines as locust control was adopted at the 12th Session of the FAO Conference. This Conference urged the Director-General to implement this recommendation without further delay in view of the enormous annual grain loss caused by this bird.

10. A great deal of attention was given to stepping up activities in increasing and improving livestock production and health, in bringing about a much more efficient use of the vast grazing resources of the African continent, and in achieving an integration of the use of grazing

resources with fodder production on cultivated land. The importance of developing the poultry and dairy industry was also stressed. Greatly improved international control of animal diseases is urgently needed.

11. To assist in meeting this host of special problems, the Conference recommended (1) that FAO should review the facilities on a sub-regional basis for soil surveying and classification, including soil mapping and soils research in relation to hydrology, chemical composition, fertilizers, machinery and implements, with recommendations for strengthening existing facilities or establishing new ones; (2) that FAO should undertake a study of sub-regional food balances based on projections of general industrial development, population growth, trends in food consumption, country products and imports, dietary requirements and income distribution so as to indicate the volumes and directions of flow of food products and hence the types and patterns of transport facilities required; (3) the massive introduction of breeding of grain legumes and other crops suitable for the tropics on the basis of yield and acceptability so as to provide a large pool of genes for selection, hybridisation and improvement; (4) research into the social institutions and other factors that are relevant for the motivation of people in the African region to adopt improved practices; (5) facilities for training biometricians either under suitable technical assistance programs or a regional centre specially set up for this purpose so as to provide specialists for the design of experiments and interpretation of results; (6) that FAO initiate action in cooperation with other agencies and organisations to implement the above recommendations.

12. Frequent reference was made to the importance of mobilising local underemployed manpower for such things as reforestation, soil conservation, building of small irrigation facilities, farm-to-market roads, schools, etc.

13. The Conference referred to some basic points on increasing crop production, such as collection and use of new genetic stocks for crop variety improvements and plant-environment relationship studies for improving and diversifying agricultural production. It also noted the promising results obtained in recent pre-investment surveys and technical assistance projects through an inter-disciplinary team approach in applying science and technology to agricultural development, whereby experts in soils, agronomy, irrigation, farm machinery, animal husbandry, farm economy and management work closely together on the problems of raising the productivity of agriculture.

(b) Improving Processing and Utilization

14. The Conference considered the subject under discussion on the basis of document ARC/64/8, and was of the opinion that it was related to the whole theme of the Conference inasmuch as it could make a substantial contribution to rural development and to the export position of African countries by creating employment and avoiding loss of valuable by-products. The development of rural areas through educational programs and the establishment of pilot plants for processing of agricultural products called for particular efforts in the training of personnel for specialised technical education.

15. The Conference stressed that the stimulation of development in extensive rural sectors by promotion of the processing of agricultural products offered one of the most promising approaches and was an essential

complement to any measures for increasing agricultural production and productivity. Vigorous development of rural processing industries for agricultural products could most effectively strengthen the link between agricultural production and urban industrialisation.

16. The Conference further considered that, without ignoring the importance of heavy and strategic industries, the role of agricultural industries utilising renewable resources as raw material must be given high priority if industrial development was to be accelerated. Pilot agricultural processing units should therefore become the spearhead of industrialisation of rural areas.

17. Within this general context, the Conference particularly noted the relation between improved processing and better nutrition. It also considered certain special aspects such as the utilization of forestry products and the importance of fish processing in connection with rural development. In relation to forestry, concern was expressed at the encroachment of metal on markets where wood had been used traditionally in Africa and urged that particular attention be devoted to securing more widespread utilization of wood and wood products. It was also recommended that a seminar on forest inventory including aerial inventory be organized in Africa similar to that held in the USSR in 1963. Regarding processing of fisheries products, the need for research on technology under tropical conditions was underlined.

18. Discussing the processing of various crops, the Conference recommended that FAO advise and assist Member Governments in Africa on the setting up of suitable, efficient plants for the manufacture of pulp and paper, and the processing of vegetable oils, cassava, cereals, cocoa, coffee, tea, rubber, fibres, fish and so on. The Conference mentioned that equipment for processing on a small rural scale is often not available and suggested that FAO carry out research on the manufacture of small plants which could be enlarged as production increases.

19. The Conference unanimously endorsed Resolution 28/65, passed during the 12th Session of the FAO Conference in 1963, which "requests the Director-General, in formulating his program of work and budget for 1966/67, to give particular attention to strengthening those aspects of the Organization's activities which can assist the developing countries to achieve a rapid and sound expansion of industries either based on renewable natural resources, or designed to meet food and nutritional needs."

20. The Conference recommended that the topic of industrialisation - based on agriculture in its broadest sense to include forestry, livestock, fisheries, nutrition, economic and social aspects, and institutional arrangements - was of such importance that it needed to be given fuller attention and therefore should become an important item on the agenda of the Thirteenth Session of the FAO Conference to be held in 1965; and asked the Director-General to take this into account fully when formulating his program of work and budget for 1966/67. It also requested that the subject be a major topic on the agenda of the next Regional Conference for Africa.

21. Since lack of statistical data and information hampers the development of efficient processing industries, the Conference invited FAO to survey existing processing activities and collect information on processing methods in all African countries so as to provide an exchange of information and enable countries to benefit from the experience of others. At the same time FAO should assist countries to determine the lines along which processing projects should be worked out and implemented. The Con-

ference also stressed that research and training was most urgently required in this field, and that FAO should devote more attention to food processing. It also recommended that surveys should be carried out in Africa to determine the availability of raw materials and processing possibilities.

22. Referring to the great losses during storage of cereals, the Conference requested FAO to assist in the design and building of simple storage facilities.

23. The Conference requested FAO also to extend more assistance in the field of processing and marketing of milk, meat, hides and skins.

24. When discussing the size of processing plants the Conference expressed its opinion that this in general depends on local conditions. Plants should be as close as possible to production areas, and where possible they should be established in rural areas to help check the premature exodus of the rural people to urban areas and reduce unemployment in villages and farms.

25. To avoid wasteful competition between many of the African countries, the Conference suggested a "division of labour" - between countries and also between sub-regions - in setting up processing industries.

26. On the subject of enriched high-protein foods, reference was made to experiments carried out in Ceylon with so-called Tapioca Rice and Tapioca Macaroni, and by the present FAO/UNICEF/WFP project in Senegal. The need for countries to undertake marketing and acceptability trials was also stressed.

27. The Conference noted the advantages of simple equipment for small-scale processing of palm produce since this was a typical example of how rural processing can be improved with inexpensive equipment which can, to a great extent, be made locally.

28. It was noted that FAO was preparing an Informal Working Bulletin on Storage which was expected to be extremely useful to all African countries. FAO had also started making comparative studies of processing in various African countries, as had been requested by a number of delegates.

29. It was further noted that Member Countries were still not fully aware of the assistance FAO could extend in these fields and it was stressed that countries should bear these possibilities in mind when planning their requests for assistance.

30. The Conference noted that enormous potentialities existed in Africa and that Africa as a whole could, for example, become self-sufficient in sugar and in fibres needed for sack manufacture. Reference was also made to the possibilities of oil-extraction from seeds such as those of cotton, the bulk of which was still being exported overseas.

31. In view of the importance attributed to the subject, the Conference requested FAO to organize a Training Centre on Processing in Africa similar to the one on Marketing of Staple Food Crops recently held in Nairobi, Kenya.

32. The Conference welcomed the forthcoming publication of the study on "Timber Trends and Prospects in Africa" and noted that the findings of this survey were to be discussed at the next session of the African Forestry Commission due to be held in East Africa in June 1965.

33. The Conference was advised of the low level of paper and paperboard consumption throughout Africa as a region (averaging only 3 kg. per capita during 1961/62 compared with 32 kg. per capita in the world as a whole) and expressed its satisfaction with the organization, in collaboration with ECA, of a First Conference on Pulp and Paper Development for Africa and the Near East, to be held in Cairo from 8 to 20 March 1965.

Regional and World Economic Considerations Bearing on African Agricultural, Fisheries and Forestry Planning and Development.

1. The Conference was impressed with the outstanding importance of commodity export earnings for the development prospects of the African region, with the urgency and magnitude of the problems calling for solution, and with the need for intensified action and related consultations and studies on a large number of inter-related aspects, so as to secure the conditions required for speedier progress and accelerating economic growth.

2. Because of the outstanding importance of the products of farms, forests and fisheries in the economies and, in particular, in the structure of exports of African countries, the role of FAO's work in these fields was recognized as deserving a very high degree of emphasis. The Conference therefore welcomed and strongly endorsed the Director-General's intention to select as one of the three main themes in the orientation of the Organization's program of work, the question of how best to regulate trade to assist development. The Conference requested the Director-General to consider ways and means of strengthening such work, studies, advice, policy guidance, and action on a broad front, in close cooperation also with the relevant activities of the Economic Commission for Africa, with the newly created Economic and Social Commission of the Organization for African Unity, and especially also with the United Nations Conference on Trade and Development and its organs. The Conference further requested the Director-General, in the shaping of work and studies on trade and development, to give special consideration to the following three main aspects:

- (i) Preparatory work for the negotiation and effective operation of international commodity arrangements, including consultations designed to improve the coordination of policies on a worldwide front;
- (ii) improved national and regional programming, with particular reference to commodity projections and special assistance and commodity advice to be rendered to governments on possibilities of export promotion and import substitution of their main products, including possibilities for the expansion of processing and of intra-regional trade;
- (iii) the intensification of analytical studies and policy guidance, with special reference to assisting governments of the region as a whole in expanding their real primary export earnings from the rest of the world at rates sufficient for meeting the import requirements of their development programs.

3. Outlook for African Commodity Trade. In taking note of the information presented to it on the situation and outlook for the major African export crops, the Conference expressed concern about the high degree of instability in world markets and adverse longer-term trends for a number of products. Whilst noting that price movements for some of these products had recently been more favourable, the Conference concluded that the basic trends and their underlying causes remained unaltered and continued to cause anxiety, particularly in view of the need for expanding primary export earnings in terms of import purchasing power.

4. Commodity Policy Issues Arising from the United Nations Conference on Trade and Development. Many delegations stressed the importance attached by their governments to the United Nations Conference on Trade and Development and to its implications for further international work and action.

5. In anticipation of the strong interest shown by delegations in the outcome of the Trade Conference, the Director-General had arranged for a full review of the outcome of that Conference and of its commodity policy implications to be presented to the Regional Conference by FAO's Director for Special Studies who had been one of the officers closely associated with the work of the Conference and with its preparatory stages. The Conference expressed its special interest in the review presented to it by the Director for Special Studies and requested the Director-General, in view of the importance of the contents of the review for the African region, to consider arrangements for an expanded version to be prepared for publication as a special policy study.

6. The main points of this statement are as follows:

(a) The main general achievements of the United Nations Trade Conference had to be seen in its new emphasis on the inter-relationships of trade, aid and economic growth, with special reference to the problems of the developing countries, and in the expression of these relationships in quantitative terms which provided a better basis than hitherto for the formulation of policies. Moreover, there had been a welcome spirit of conciliation and good will by all the parties concerned, despite all difficulties. In particular, the statement drew attention to the remarkable degree of unity achieved in the presentation of their problems by the group of 77 developing countries. It was also important to bear in mind that the deliberations of the Conference and recommendations emanating therefrom had to be seen not as a once-for-all operation but as the beginning of a continuing process aiming at strengthened consultations and action in the fields of trade and development. Thus, whilst some of the recommendations of the Trade Conference had inevitably been couched in rather general terms, it was now up to the governments of all the countries concerned and to those assisting them in the international organizations to help in translating these general recommendations into practical realities affecting the prospects and problems for each of the main export crops in each of their countries.

(b) With a view to facilitating this process of practical application of the Trade Conference recommendations with special reference to the export earnings of countries of the African region the statement proceeded to illustrate the concrete implications of these recommendations and types of further action required by reference to each of the following three main groups of typical African export products:

- (i) Tropical products not competing directly with home-produced supplies in major importing countries; notably coffee, cocoa, tea, bananas and spices. Attention might usefully be centered here on possibilities of regulatory agreements, whilst bearing in mind the technical limitations these present; full consideration had also to be given to other commercial policy aspects of special relevance to tropical products, such as the effects on them of revenue duties and tariffs. These had been given special attention in the Geneva recommendations. With respect to implications in regard to the negotiation and operation of regulatory agreements, attention was drawn in particular to some of the experiences, possibilities and problems facing the existing Coffee Agreement, and to further plans now being developed for cocoa, following the failure of the Cocoa Conference and subsequent joint action by cocoa exporters.
- (ii) Tropical products which had to compete with home-produced, often protected supplies, in major import markets, and also with exports from temperate-zone developed countries; the most important African export group in that category being that of oilseeds and oils, but also tobacco, sugar, some fruit and rice. The main function of international agreements, arrangements and other forms of policy coordination for this group of products should be to make good use of the recommendations emanating from Geneva, and secure for exports from developing countries, adequate shares of total consumption, and its expansion, in major import markets. Among relevant measures of commercial policy on which recommendations had been made by the Geneva Conference, one aspect of special interest concerned possibilities of lessening the impact of differential tariff rates for exports in raw and processed form; - higher percentage tariff rates being charged for instance for oils than for oilseeds. This type of trade barrier which also affected exports of other primary products, notably in the third category of raw materials referred to below, constituted a serious disincentive to the development of processing industries. At the same time the development of such processing industries was obviously of great economic importance for the diversification programs and foreign exchange earning improvements of the developing exporting countries.
- (iii) Agricultural raw materials: the most important African export products in this category being cotton, timber, rubber, hides and skins. Apart from the question of processing already referred to above, the Geneva recommendations dwelt on the need for consultations and action with respect to the rapidly growing threat to some of these products, of competition from synthetics. Whilst recognizing that technological progress could not be impeded, the Geneva Conference made a series of detailed recommendations concerning possible ways whereby the impact of competition from synthetics on the economies of developing primary exporting countries might be mitigated, or joint forward-programming of output and capacity for natural and synthetic products facilitated.

(c) With respect to the fourth agricultural commodity category, namely that of temperate-zone foodstuffs, this played a much smaller part in the export pattern for the African region as a whole, even though it was of appreciable importance to some countries. At the same time, temperate-zone foodstuffs, notably cereals but also dairy products were important import items in the African region, on both commercial and concessional terms. The role of food aid was a matter of special FAO concern and this had been recognized in a number of references in the Final Act of the Trade Conference, including references to the role of the UN/FAO World Food Program and to FAO's Principles of Surplus Disposal.

(d) More generally, a good deal of recognition had been given to the important part to be played by FAO in dealing with problems relating to each of the commodity categories mentioned above. The generous extent of cooperation to the Trade Conference by the Director-General, including major contributions to the Conference documentation, had elicited favourable response.

(e) When summarized in more functional terms, the main recommendations of the Trade Conference on commodity policy matters could be broadly grouped under the following three main headings:

- (i) Liberalisation. Measures aiming at the elimination, or at least substantial reduction, of existing barriers to trade, and prevention of new barriers; this includes measures relating to revenue duties and other internal charges, and recommendations concerning domestic policies which were found to give undue encouragement to domestic production of competing products in developed countries. Recommendations relating to preferential arrangements also fall broadly under this heading, although all measures concerning programs of liberalisation must be closely related to those aiming at improved worldwide organization and, where feasible, integrated within the framework of international commodity arrangements:
- (ii) Regulation and improved coordination of policies. Measures designed to promote the negotiation and effective operation of international commodity agreements and arrangements, with special reference to the need for stimulating a dynamic and steady expansion of real primary export earnings of developing countries at rates sufficient to meet the import requirements of their development programs:
- (iii) Compensation. The Trade Conference recognized that, notwithstanding the intensification of measures designed to assure primary export earnings at adequate rates, there was likely to remain a "residual problem" for which other financial solutions, beyond those provided by programs of aid and technical assistance, had to be sought. In this connection, the Conference recommended for further study a number of alternative proposals for compensatory and other supplementary financial measures in the interests of developing exporting countries.

(f) Recommendations on non-reciprocity were also of special importance to developing countries. Thus developed countries were thereby asked to extend to developing countries concessions on trade barriers,

without requiring reciprocal concessions from them. Similarly, it was recommended that developing countries, in extending certain concessions to all other developing countries, should be free to do so without having to extend the same concessions to developed countries. In cases where special preferential arrangements existed between selected groups of developed and developing countries, agreement in principle was reached at the Trade Conference among all parties concerned that such special preferential measures might be phased out pari passu with the adoption of wider international arrangements of at least equivalent value to the developing countries which had been enjoying the special preferences. Such agreement in principle could pave the way toward new forms of international commodity agreements extending additional benefits to all developing countries.

(g) The Trade Conference recommendations also referred to the importance of promoting trade among developing countries, through measures such as adequate payments arrangements. At the same time, emphasis was placed on the need of developing countries to secure stable and adequate foreign exchange earnings, in terms of import purchasing power from the rest of the world, bearing in mind in particular the importance of imports of capital goods which had to be obtained from outside their own group. In this connection, account was taken of the high degree of concentration of import markets for primary products from developing countries in the Western developed countries. These still account for over 90 percent of the total of these imports. A number of recommendations also related to possibilities of expanding exports of primary products from developing to centrally-planned countries.

7. Several aspects of the main commodity policy issues which formed the subject of recommendations in the Final Act of the United Nations Conference on Trade and Development, are being considered further in the following paragraphs, with special reference to contributions to be made by FAO to the continuing work on these matters.

8. For those wishing to obtain further information, in concise form, on individual agenda items of the Trade Conference and their implications on trade in agricultural products, and on the work of FAO, attention was drawn to the FAO Trade Policy Reference Paper, whose seven substantive sections relating to the seven main topics of the Trade Conference Agenda contained such information. This paper, prepared as part of FAO's program of special studies, and distributed as one of the documents of the Trade Conference, was to be issued soon as an FAO sales publication.

9. Expansion of Intra-African Trade. The Conference stressed the importance of promoting the expansion of intra-regional trade, particularly as a means of reducing net import requirements of food in the African region as a whole, and of opening new export outlets for the countries of the region. The existing complementarities of natural resources and cost differentials of production in different parts of the African region were regarded as providing a good basis for developing intra-regional trade, especially in cereals and starchy roots which figured prominently in the diets of African people, in meat, sugar, and certain processed products, notably textiles which at present accounted for a large share of the region's total import expenditure.

10. With a view to exploring the scope and possibilities of such expansion on a commodity basis, the Conference requested the Director-General, in cooperation with the Economic Commission for Africa, to carry out a special survey of regional export and import outlets for commodities produced within the region. In particular, the Conference welcomed the steps taken towards the introduction of a free trade area concept among some countries of the region, and noted the studies undertaken by the Standing Committee on Trade of the ECA and by the Economic and Social Commission of the OAU as regards the establishment of an African Common Market and an African Payments Union. The Conference requested the Director-General to lend the facilities of FAO for the confrontation of agricultural policies at a regional level or on a broader basis where appropriate and to cooperate with the ECA in its studies of the African Common Market.

11. Commodity Projections. The Conference expressed its appreciation of FAO's work on commodity projections as guidelines to agricultural planning and to the formulation of policies in developing countries. It welcomed the decision of the Director-General to hold, in cooperation with the Economic Commission for Africa, a regional meeting on projections in Africa in 1965, to be attended by specialists engaged in projection studies and economic programming in their own countries. The FAO projections would be extended to 1975 and they would provide the basic commodity framework for the FAO Indicative World Plan for Agriculture. It was hoped that they could be used also as a basis for the preparation of an integrated development and trade plan for Africa as a whole, which the Conference would like to see carried out. The Conference was of the opinion that the usefulness of FAO demand projections would be enhanced as a guide to national planning in exporting countries, if the world import aggregates for particular commodities could be broken down in greater detail by major individual importing countries.

12. African Regional Advisory Service on Commodity Problems. The Conference emphasized the need for a highly specialized interpretation at a national and regional level of international commodity developments, trends and prospects as a basis for planning national targets for production, consumption, exports and imports. Answers to such questions as (a) the comparative advantage of expanding production and exports of one product rather than another; or (b) the costs and problems of import substitution through expanded domestic production of a particular commodity; or (c) the best timing in the offer of products for export or in the purchase of them for import; or (d) the effects, short and long-term, on the economies concerned of international stabilization arrangements or of regional arrangements in other parts of the world, were essential in formulating development targets and action to expand net export earnings and to enable developing countries to plan with more assurance.

13. The Conference felt that the specialized experience and expertise of FAO in the field of international commodity problems could be particularly valuable to the countries of the region in developing their own commodity analysis work, oriented towards assessing prospects for their products in the more general context of world and regional commodity trade considerations as an element in development planning and policy making.

14. The Conference noted that the 12th Session of the FAO Conference drew attention to the desirability of establishing regional posts in the commodities field. The Conference felt that one such post, of a regional commodity adviser, would be particularly desirable in the African region. The primary task of this post would be to advise and assist interested governments in the analysis of the commodity aspects of their development

programs and projects, especially through the establishment of national commodity analysis services, training programs, and the preparation of requests for assistance under EPTA, Special Fund, and the FAO/IBRD Co-operative Program. The Conference requested the Director-General to give consideration to this matter.

15. Program of Special Studies on Selected Policy Issues. The Conference expressed its high appreciation of FAO's program of special studies on selected policy issues, on the lines originally presented by the Director-General to the Twelfth Session of the Conference, and endorsed by that Session. Since then, the importance of the program had been underlined further by the outcome of the United Nations Trade Conference which called for FAO's continuing contribution and close cooperation on special policy issues. The Conference requested the Director-General to give special consideration to the development of this program of particular policy studies which had already proved of great practical value to the governments of the African region.

16. In particular, the Conference expressed its strong interest in plans under way for an analytical review of commodity arrangements, of the principles governing such arrangements and related policy issues. The Conference was aware that such a full review if it was to break new ground, supported by a series of detailed case studies, had to form part of a continuing program extending through the next biennium. At the same time, in view of the importance and urgency of the questions at issue, the Conference requested the Director-General to consider the possibility, within the limits of available resources, of facilities being provided for initiating such a full review, as part of the program of special studies, even within the current biennium.

17. The Conference also asked that a special feature of such a review should be the examination of the mechanism of quota determination and of such objective criteria or new negotiating methods as might be applied in the determination of quotas and, as far as feasible, in the setting of production goals of participating exporting countries. Attention was drawn in this connection to the working of the International Coffee Agreement which provides a living example of the possibilities but also the problems of operating an international agreement based on the determination of quotas. Work on the analytical review should proceed in close cooperation with the related activities of the specialised commodity bodies concerned and of the United Nations Conference on Trade and Development.

18. Relation of Selling Prices to Costs of Production. The Conference also recommended study of cost formation processes of both production and selling prices, with a view to finding means of reducing the former and also to providing governments with a basis for discussion of inter-governmental agreements to ensure guaranteed prices to producers.

19. Competition from Synthetics. Competition with synthetics was recognized as a serious threat to export earnings from Africa's commodities. This competition and the nature of possible remedies, can, to a large extent best be studied on a commodity-by-commodity basis. The Conference believed that the FAO had an important contribution to make to the intensification of work in this field, as recommended by the United Nations Trade Conference. Such work would be of help in formulating guidelines and measures in production and trade which, in turn, would improve the ability of exports from developing countries to compete with synthetics and other substitutes.

20. The Conference therefore requested the Director-General to consider means of developing the basic studies of the problem, including collection of consumption data by end uses; analysis of competition between synthetic and natural products within each major end use and review of development programs of the synthetic and natural industries in the light of demand prospects.

21. Trade in Processed Products. The Conference recognized the urgent need for the diversification and expansion of the export trade of African countries in processed and semi-processed commodities as a means of accelerating their economic development. Many basic economic questions needed to be studied as regards the growth of processing industries with export, or import savings potential in developing countries. The Conference felt that further intensification of the work of the Committee on Commodity Problems on the economic aspects of processed products and agricultural processing industries would be of greatest importance to the development objectives of African countries.

22. The Director-General was requested to consider ways of strengthening this line of work, including the collection and analysis of data on production, raw material content, consumption, international trade, stocks and prices of processed agricultural commodities, the study of trends in international trade in such commodities, analysis of the technological and economic characteristics of certain processing industries; the comparative advantages of exporting processed or semi-processed goods as against agricultural raw materials, and the role of processing industries in economic growth of developing countries.

23. Distribution and Processing Margins in Importing Countries. A number of delegations drew attention to the problems arising for the primary export interests of their countries from the wide margins allowed for the cost of distribution and processing in major importing countries. As a result of these margins, retail prices charged to ultimate consumers in these countries were high and inflexible whilst the returns received by the primary exporters often constituted but a small fraction of these retail prices.

24. The Conference requested the Director-General to consider the possibility of specialized inquiries being undertaken into the composition of distribution and processing margins in importing countries and possibilities of reducing them.

25. The FAO Committee on Commodity Problems and its Study Groups The Conference expressed its appreciation of the work of the Committee on Commodity Problems and of its six specialized study groups covering: grains, rice, cocoa, citrus, coconut and coconut products, and jute. While future work in the field of international commodity problems would, no doubt, be affected by the outcome of the United Nations Conference on Trade and Development, it was equally clear that there would need to be intensification of activities with regard to commodity studies and arrangements and to the link between trade and economic development, and that the CCP machinery would continue to play a prominent part in such activities.

26. The Conference noted that the 37th Session of the Committee would consider its future activities in the light of the decisions of the UNCTAD. It was generally agreed that the best contribution of the Committee on Commodity Problems to international action in the field of trade, aid and economic development would continue to be its studies of, and

advice on, individual commodity situations, problems, policies, trends and prospects. At the same time, the Conference strongly endorsed the intention of the Director-General to give this basic work a new emphasis and dimension by linking it to a greater extent than in the past to problems of agricultural and economic development.

27. Study Group on Oilseeds and Oils. The Conference noted that at present the African producers of vegetable oilseeds and oils acutely dependent on their exports as a source of foreign exchange earnings, did not have any international machinery concerned with their produce, in contrast to some producers of other vegetable oils (olive oil, coconut and coconut products) in other regions. It was further noted that the FAO's only inter-governmental study group in the field of fats and oils was limited to coconut and coconut products.

28. The Conference felt that it was essential for FAO to set up a comparable inter-governmental machinery for oilseeds and oils or, alternatively, to extend the present terms of reference of the FAO Group on Coconut and Coconut Products to cover the field of fats and oils as a whole. The Conference requested the Director-General to invite the Committee on Commodity Problems to consider the necessary steps in this direction.

29. FAO Cocoa Study Group. The Conference expressed its disappointment at the outcome of the Cocoa Conference and took note with interest of the recent steps which had been taken jointly by major cocoa exporting countries. In this connection, the Conference also expressed its appreciation of the continuing work of the FAO Cocoa Study Group which was of great practical importance for African countries.

30. Codex Alimentarius. The attention of the Conference was drawn to the work of the FAO/WHO Codex Alimentarius Commission in establishing standards for both raw and processed foods for international trade. The importance of recognized standards to protect the producer and the consumer as well as facilitating trade, production and processing was stressed.

Foreign Aid in Food and Agriculture: Organizational and Administrative Aspects.

1. The Conference, which had before it document ARC/64/10, was consulted specially on the policy the Director-General proposed following in matters of assistance, particularly in Africa. This policy, the major lines of which had been established after consultation both with the governing bodies of FAO and with those of the organizations financing this assistance, consisted in the first place in approaching the matters of outside aid required by developing countries in a planified and global manner by taking into account the technical needs and the economic and social conditions which influence such development. Economic and social technical assistance, which it was FAO's task to supply, must be initiated by direct assistance in pre-investment studies; this was indeed a first precondition for attracting capital and ensuring as far as possible that investments, both for capital expenditure and for renewable public expenses necessary to development, could be made available to governments under economic and political conditions acceptable to them.

2. The Conference fully approved this policy and supported the efforts already undertaken by the Director-General to put it into practice. The Conference in fact considered that these principles would contribute to accelerated development and thus place African countries, in as short a time as possible, in the position to assume full responsibility for their

development with the help of their own human and financial resources. Many delegates insisted on this point and requested that a special effort be made in the training of local personnel. Since the financial resources available to Africa could only originate from African production itself, the Director-General was requested to do everything possible to ensure that such production could be marketed under remunerative conditions compatible with the requirements of development, and enable countries to become progressively independent of outside financial aid.

3. The provisional agreement between the Director-General of FAO and the President of the IBRD/IDA was unanimously welcomed by the African countries as a first measure to be pursued and intensified in the future. The Conference further requested the developed countries to consider once more the problems of the development of Africa, their urgency and extent; and to give special emphasis to means of implementing the recommendation of the World Food Congress which favoured the creation of an International Solidarity and Development Fund established with savings realized through reduction in military expenditures.

4. Stressing the need not to limit financial aid to capital investment only, but to extend this to assisting countries with their renewable public expenditures necessary for development, the Conference requested the Director-General, the IBRD and the Special Fund to consider this difficult problem and to study in particular the possibilities of temporary financial aid from outside sources for the establishment of basic agricultural services essential to development, such as those of agricultural extension, statistics and credit.

5. With regard to the pre-investment studies for which FAO was responsible in its capacity as executive agency for the Special Fund in the field of food and agriculture, the Conference underlined the need to reduce the delays which too frequently occurred between the time of conception of a project, its preparation, approval and implementation. The Conference was fully informed of the measures already taken by the Special Fund and FAO to overcome these difficulties (funds for preparatory missions, advanced recruitment of project managers and experts). It expressed its satisfaction at the results achieved but urged that more should be done to cut delays.

6. The Conference also recalled that countries can benefit from Special Fund projects only if they are in a position to collaborate directly in these projects, particularly through local contributions and by making available adequate counterpart personnel. It was informed of the importance that FAO and the Special Fund attached to this local participation and particularly to the training of local personnel which was one of the fundamental elements of this form of assistance. Certain countries, however, insisted on the difficulties which the poorer countries encountered in furnishing their financial contribution, a situation which often made it impossible for them to benefit from Special Fund projects. The Conference therefore requested the Director-General to study, with the authorities of the Special Fund, the possibility of liberalizing these regulations in favour of the less endowed countries.

7. The Conference also made certain observations regarding the Expanded Program of Technical Assistance and particularly the problem of OPEX experts. The Conference agreed with the suggestion that these officials, while remaining entirely under the authority of the countries which engaged them, should nevertheless retain the possibility of receiving assistance and advice on purely technical matters from the organizations which recruited them.

8. The Conference requested FAO's assistance in obtaining the secondment of technical staff from developed countries, under such conditions that they would not suffer setbacks in their careers when they returned to their home countries. The Conference also requested FAO to prepare a handbook explaining the scope and functions of the various aid-giving bodies for use by developing countries.

9. The Conference was informed of discussions currently underway on the merger of the EPTA and UNSF. It felt that, in the organization to be created, both programs should retain their individuality and, particularly as concerns EPTA, the flexibility which enables it to assist countries in cases of urgency. The Conference also felt that the experience already acquired by the Specialized Agencies - and particularly by FAO - should be fully utilized by the new administration and especially by the inter-agency committee.

10. The Conference took note of the increasing difficulties - both in regard to finances and staff - which FAO was encountering in the preparation and implementation of projects, particularly those of the Special Fund. It considered that these executive projects were of vital interest to countries and that their implementation was imperative. It regretted that the efforts required to ensure this had to be made at the expense of the Regular Program of the Organization and requested the Director-General to pursue his effort to obtain from the Special Fund an equitable reimbursement of the expenses which FAO had to incur.

11. The Conference discussed in detail the coordination of foreign aid at national and international levels. Delegates agreed that at the national level coordination was of the exclusive competence of governments who should, however, establish efficient machinery to provide such coordination on the basis of development plans adopted by each country.

12. The Conference stressed the need to take steps, at all levels and in both donating and receiving countries, to ensure that multilateral and bilateral assistance became fully complementary instead of competing with each other, whether during the preparatory phases or at the stage of implementation.

13. The Conference took note of the activities of the World Food Program, both as regards development projects and emergency relief. While some delegates stressed the need for ensuring that food contributions under this program would not affect world trade, the Conference was in general agreement that the experiment was valuable and expressed the hope that it would be continued on an expanded scale after the end of the experimental phase in 1965. With regard to emergencies, several countries expressed their gratitude for the efficient and rapid relief they had received.

14. The Conference was informed of FAO's new activities in the use of volunteers. It took note that FAO had already signed agreements with the Peace Corps of the United States and with private organizations in the United Kingdom, Denmark and Austria, and was negotiating for further similar agreements with other governments and organizations that had established or were planning volunteer programs. The Conference felt that volunteers could make a substantial contribution to FAO's technical assistance programs, particularly by providing a link between the experts and the farm population, and in the field of training of middle level man power. The Conference expressed its full support for the envisaged expansion by FAO of this type of activity whilst respecting its non-political character.

15. Finally, the Conference congratulated the Director-General on his action in the field of assistance and requested that he pursue his activities to the end that such aid be of the greatest benefit to all developing African countries in all fields and at all levels.

CONCLUDING ITEMS

The Future Orientation of FAO's Work in the Region

1. After conclusion of discussions on the major policy questions on the Agenda of the Conference, the main points that emerged, as they figure in the above report, and the general orientation which the Conference wished to give to FAO's future program of work, were summarized by the Regional Representative for Africa.

2. The impact of these indications, and the manner in which they would influence the elaboration of the Program of Work and Budget for 1966/67, which the Director-General would propose to the 13th Session of the FAO Conference toward the end of 1965, was then outlined by Mr. P. Terver, Assistant Director-General, Program and Budget Department.

Adoption of the Report

1. The Conference then examined the draft report, and with some amendments in respect of substance, adopted it unanimously, with the understanding that the Secretariat would be free to carry out any necessary editorial changes in finalizing the text for publication and distribution.

Closing Ceremony

1. The Chairman of the Conference and leader of the delegation of the Imperial Government of Ethiopia then initiated the closing ceremony by a statement in which he expressed satisfaction with the useful results that the Conference had produced. An occasion had been given for a clear evaluation of the current stage of agricultural development in the Region, and for a valuable exposition of each country's plans for meeting the growing needs of their peoples. It was encouraging to note that the agricultural sector was now being given its rightful high priority in national economic and social development, and that a subregional and regional approach was being recognized as the right one in a great many instances. The size of the task still ahead was clearly brought out, and underlined the absolute need for efficient coordination and use of domestic skills and capital and of all outside financial and material assistance.

2. H.E. Ato Akalework Habtewold concluded with a word of appreciation for the lively participation of well-prepared and earnest-minded delegates, and for the contributions of the FAO staff and the Conference Secretariat. He renewed his assurance, on behalf of the host government, of the pleasure that had been Ethiopia's in welcoming the Conference to Addis Ababa.

3. Chief Akin Deko, FAO Regional Representative, then expressed the thanks of the Organization to the Imperial Government and people of Ethiopia for their unbounded hospitality and for the thoughtful and cooperative manner in which every facility had been placed at the disposal of the Conference to ensure its success.

4. Unanimously chosen as the spokesman for the participating delegations, the Hon. D.L. Sumner, Minister of National Resources of Sierra Leone, then extended his thanks to His Imperial Majesty, the Emperor, as one of the chief leaders of a united Africa, for placing Africa Hall at the Conference's disposal, thus ensuring a judicious blending of time, place and subject. "A thing of beauty is a joy for ever", he said, in summarizing his views on Addis Ababa, on the courtesy and friendliness of its people, on the general spirit of goodwill that reigned throughout the meeting, which had constituted a further step forward in the annals of FAO in directing human thinking to means of wiping out the scourge of hunger from this planet, at a time when others were worrying about the moon.

5. The following formal note of thanks proposed by the delegate of Mali, was adopted by acclamation:

Meeting in Addis Ababa from 3 to 15 September 1964, the Third FAO Regional Conference for Africa;

Considering the many marks of friendliness and hospitality extended to the delegates by the Government and people of Ethiopia;

Appreciating the smooth organization attending its work;

Expresses its sincere gratitude to His Imperial Majesty Haile Selassie I for having been pleased to inaugurate its work;

Congratulates the Conference Officers and in particular the Conference Chairman, H.E. Akalework Habtewold, Minister of Agriculture of the Ethiopian Empire, for having conducted its discussions in so masterly and expeditious a manner;

Addresses its sincere thanks to the FAO specialists and the staff of the Conference Secretariat for their valuable contribution to its work.

Invitation to the Fourth FAO Regional Conference for Africa

1. Prior to declaring closed the Third FAO Regional Conference for Africa, the Chairman gave the floor to the delegate from the Ivory Coast, who tendered an invitation on behalf of his Government to the Director-General of FAO to hold the Fourth FAO Regional Conference for Africa in Abidjan, capital of the Ivory Coast.

2. This offer was warmly welcomed by the Conference. The representative of the Director-General thanked the delegate of the Ivory Coast for this generous offer, requested him to convey FAO's thanks to his Government, and informed the Conference that the Director-General of FAO would be advised of this invitation when the time came for him to take a decision on the venue of the next African Regional Conference of FAO.

LIST OF PARTICIPANTS

A. DELEGATES

BURUNDI

C. Kavumbagu
Director of Agriculture

CAMEROUN

I.M.A.A. Gaston Bitomo
Chef, Service Expansion Economique
Ministère de l'Economie Nationale

CHAD

E. Bourgade
Directeur du Cabinet du Ministre
de l'Agriculture et de l'Elevage

V. Roumba
Ingénieur des Travaux Agricoles

CONGO (Léopoldville)

C. Matueta
Chef du Bureau des Statistiques

DAHOMY

S.E. A. Degbey
Ministre du Développement Rurale
et de Coopération

F. Atikpahoun
Chef, Région agricole sud-est

F. d'Almeida
Secrétaire national CMCF

ETHIOPIA

H.E. Akalework Habtewold
Minister of Agriculture

H.E. Belletteu Gabro-Tazadik
Vice-Minister of Agriculture

Yohannes Habtu
Director General, Ministry of Agriculture

Amde Wondafrash
Director General, Livestock Department

Pascal Woldemariam
Director General, Ministry of Agriculture

ETHIOPIA

Werkeu Mekasha
Director General for Research

Haily Mulatu
Director General, Ministry of Agriculture

Wolde Michael Kelecha
Director General, Ministry of Agriculture

Zegeye Aberu
Director General, Ministry of Agriculture

Matheos Tegueneh
Head of Economic and Statistics Department

Tsagga Amlak Worku
Assistant Director, Extension Service
Ministry of Agriculture

Ayele YesheWalol
Deputy Manager of Livestock and Meat Board

Dr. Haile Selassie Belay
Associate Dean, Faculty of Agriculture

FRANCE

J. Pagot
Directeur de l'Institut d'Elevage et de
Médecine Vétérinaire des Pays Tropicaux

J.P. Hesse
Chargé de mission aux affaires internationales
Ministère de la coopération

GABON

G. Bekale
Ingénieur des travaux agricoles

GHANA

H.E. Krobo Edusei
Minister of Agriculture

H.E. Martin Appiah-Danquah
General Secretary, United Ghana
Farmers' Council Cooperatives

H.E. E.M. Debrah
Ambassador of Ghana to Ethiopia

B.B. Bismark
Public Relations Officer

GHANA

C.A. Dadey
Principal Secretary, Ministry of Agriculture

A.K. Asem
Agricultural Extension Commissioner

D.A. Hammond
Principal Fisheries Officer

J.G. Amofo
Principal Agricultural Economist

J. Asmah
Forest Utilization Officer

E.K. Hagan
Agricultural Attaché, Rome

A. Brefo
First Secretary,
Embassy of Ghana to Ethiopia

IVORY COAST

Victor Amagou
Ingénieur agronome,
Directeur départemental de l'Agriculture

J.B. Touré
Ministère des Affaires Etrangères

KENYA

Hon. B.R. McKenzie
Minister of Agriculture

D.C. Mlamba
Permanent Secretary
Ministry of Agriculture

I. Mann
Chief Animal Industries Officer

J.K. Ndeti
Veterinary Officer

J. Murenga
Assistant Secretary
Ministry of Agriculture

LIBERIA

Hon.S.Tolbert
Secretary of Agriculture

H.W. Yaidoo
Director of Statistics

MADAGASCAR

Ralibera Rakotoarivony
Directeur adjoint du
Service de l'Agriculture

N. Rakotomanana
Trésorier du Comité National
Malgache CMCF

MALI

S.E. D. Mudibo
Ambassador to Ethiopia

MAURITIUS

Hon. Satcam Boolell
Minister of Agriculture

Lutchmeesing Seewoonarain
Assistant Secretary
Ministry of Agriculture

MOROCCO

A. Doukkali
Attaché au Cabinet du Ministre
des Affaires Etrangères

NIGERIA

Hon. M.T. Mbu
Minister of State

H.F. D.C. Igwe
Ambassador to Ethiopia

G.E.O. Okiy
Director, Federal Department
of Agricultural Research

B. Shaib
Permanent Secretary
Ministry of Animal and Forest Resources
Northern Nigeria

N.A. Nwosu
Chief Inspector of Agriculture
Eastern Nigeria

E. Ogor
Chief Agricultural Officer
Mid-West Nigeria

NIGERIA

J.O. Akinwolemiwa
Assistant Chief Agricultural Extension
Services Officer, Western Nigeria

B.S. Oloruntoba
Principal Agricultural Officer
Northern Nigeria

E.A. Okwuosa
Administrative Officer
Ministry of Economic Development

J.A.O. Banjo
Personal Secretary
Ministry of Economic Development

H.I.A. Ugwu
Second Secretary
Embassy of Nigeria in Ethiopia

SENEGAL

M. Sall
Vétérinaire

SIERRA LEONE

Hon. D.L. Summer
Minister of Natural Resources

J.A.C. Davies
Chief Agriculturist
Ministry of Natural Resources

A.G. Foray
Assistant Secretary
Ministry of Natural Resources

Mrs. Z. Kamara
Chairman National FFHC Committee

TOGO

E. Chillon
Directeur adjoint agriculture

TUNISIA

Fouad Mebazaa
Chef de Cabinet S.E. Agriculture

E. Benyoussef
Chef de la Section de la planification,
Secrétariat d'Etat à l'agriculture

UGANDA

H.E. J.E. Babiha
Minister of Animal Industry,
Game and Fisheries

H.R. Berunga
Assistant Commissioner for Agriculture

Y. Kyessimira
Agricultural Economist

H.S.K. Nsubuga
Assistant Commissioner of
Veterinary Service

UNITED KINGDOM

J.D. Hunter-Smith
Deputy Director of Agriculture,
Swaziland

Chief Leshoboro Majara
Minister of Agriculture,
Basutoland

J.H. Rhodes
Deputy Director of Agriculture,
Basutoland

R.G. Hampson
Director of Agriculture
Bechuanaland

UNITED REPUBLIC OF TANGANYIKA AND ZANZIBAR

Hon. H. Makame
Minister of State
Ministry of External Affairs

Hon. E.B.M. Barongo
Junior Minister,
Ministry of Agriculture, Forests and Wildlife

D.A. Mwakosya
Director of Agriculture,
Ministry of Agriculture, Forests and Wildlife

A.S. Kaduri
Agricultural Officer,
Ministry of Agriculture, Forests and Wildlife

UPPER VOLTA

Sie Sory
Directeur du Paysannat

B. OBSERVERS

Permanent Observer

HOLY SEE

Gilles Pion
Associate Professor

S. Chojnacki
Apostolic Internunciature

Observers of Member Governments outside the Region

U.S.A.

E.H. Farstad
U.S. Department of Agriculture
Washington D.C.

D.A. Ritter
Agricultural Specialist
Agency for International Development

A.M. Stillman
Second Secretary, U.S. Embassy
Addis Ababa

Observers of other Governments

MALAWI

H.W.T. Webb
Acting Director of Agriculture and Fisheries

NORTHERN RHODESIA

Hon. E.H.K. Mudenda
Minister of Agriculture

I.H. Muchangwe
Permanent Secretary

I.S. Hutcheson
Director of Agriculture

S.M. Makings
Economic Advisor to Ministry of Agriculture

J.H. Nelson-Smith
Department of Chief Conservator of Forests

R.M. Allen
Fisheries Statistician, Department of Game
and Fisheries

POLAND

M. Cielecki
First Secretary, Polish Embassy, Addis Ababa

U.S.S.R.

P. Morozov
Deputy Minister, Ministry of Agriculture

Mirza-Ali Mukhametjanov
Academician, Professor
Director of the Research Institute
of Experimental Biology

S. Djuraev
Chairman of a Collective Farm
Deputy of the Supreme Soviet of
the Tadjik Republic

A. Abramoff
Embassy of USSR in Ethiopia

N. Smirnow
Second Secretary, Ministry of Foreign Affairs

Mrs. Elvira Bejakova
Interpreter

Observers from United Nations and Specialized Agencies

ECONOMIC COMMISSION FOR AFRICA (ECA)

R. Gardiner
Executive Secretary

J.C. Abbott
Chief, ECA/FAO Joint Agriculture Division

G.A. Jawando
Agricultural Economist,
ECA/FAO Joint Agriculture Division

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (IBRD)

C. Samii
Economist

INTERNATIONAL LABOUR ORGANIZATION (ILO)

J. Reynaud
Directeur du Bureau de l'OIT à Addis Abéba

UNITED NATIONS EDUCATION, SCIENTIFIC AND CULTURAL ORGANIZATION (UNESCO)

René Ochs
UNESCO Liaison Officer

P. Walshe
UNESCO Expert in Agricultural Education

UNITED NATIONS CHILDREN'S FUND (UNICEF)

R. Esguerra-Barry
Deputy Director UNICEF for Africa

J. Kaboha
UNICEF Representative in Ethiopia

WORLD HEALTH ORGANIZATION (WHO)

Dr. A.É. Brown
WHO Representative in Ethiopia

Dr. A. Raba
Regional Adviser for Africa (Nutrition)

Observers for other Organizations

EUROPEAN ECONOMIC COMMISSION (EEC)

J. Mohrmann
Administrateur principal,
Direction du Fonds Européen
de Développement

INTERNATIONAL FEDERATION OF AGRICULTURAL PRODUCERS (IFAP)

R. Hewlett
Liaison Representative with FAO

ORGANIZATION OF AFRICAN UNITY (OAU)

Negussi Zerilun
Economic and Social Affairs Office

C. CONFERENCE SECRETARIAT

Conference Secretary	Gerald G. Watterson
Assistant Secretary	S.V. Mazumdar
Reports Officer	G.E. Bildesheim
Documents Officer	Mrs. M. de la Fuente
Information Officers	V. Tevoedjiré
	Miss D. King
Translators	P. Savary
	Mrs. N. Vittorelli
i/c Interpreters	A. Sole-Leris
Secretaries	Mrs. M. MacKenzie
	Miss L. Almagia
	Mrs. I. Burden
	Miss P. Bush
	Miss D. Courteille
	Miss B. Gillois

D. FAO STAFF IN ATTENDANCE

B.R. Sen	Director-General
Miss J. Campbell	Personal Assistant to Director-General

African Regional Staff

Chief Akin Deko	Director-General's Regional Representative
A.E. Chinbuah	Deputy Regional Representative (E/S Zone)
G. Laurent	Deputy Regional Representative
J.J. Bochet	Rural Institutions and Services (Addis Ababa)
H.I. Carroll	Animal Production and Health (Nairobi)
M.H. Kassem	Animal Production and Health (Accra)
S.V. Mazumdar	Statistics (Addis Ababa)
A. Meschkat	Fisheries (Accra)
F.T. Sai	Nutrition (Accra)
J.L. Van der Meulen	Marketing (Accra)
M.T. Zwankhuisen	Industrial Development (Addis Ababa)

Program Formulation and Budget Department

P. Terver	Assistant Director-General
-----------	----------------------------

Technical Department

K.V.L. Kesteven	Director, Animal Production and Health Div.
R.J. Pichel	Assistant to Director, Plant Production and Protection Division
R. Schickele	Director, Land and Water Development Div.
G.S. Welsh	Forestry and Forest Products Division

Department of Economic and Social Affairs

Mekki Abbas	Assistant Director-General
P.G.H. Barter	Director, Economic Analysis Division
Miss G. Blau	Director of Special Studies
D. Kimmel	Assistant Director, Rural Institutions and Services Division
A. Szarf	Commodities Division

Freedom from Hunger Campaign

C.H. Weitz	Co-ordinator
------------	--------------

E. CONSULTANTS

T.S.B. Aribisala	Permanent Secretary and Controller of Agricultural Services, Western Nigeria
H.C. Pereira	Director, Central African Agricultural Research Organization
F.E. Pinder	Director, USAID, Ghana
P.W. Stutley	Senior Economist, Ministry of Agriculture, Lusaka, Northern Rhodesia

F. HOST GOVERNMENT ORGANIZING COMMITTEE

Yohannes Habtu	Senior Liaison Officer
Asnake Gatechew	P.A. to Director-General
Tesfamicael Ghebriat	Transport Officer

APPENDIX II

LIST OF DOCUMENTS

Working Papers

ARC/64/1	Provisional Agenda
1a	Provisional Annotated Agenda
2	Review of the Food and Agricultural Situation in the Region
3	Regional Representative's Report on Action taken by FAO in the African Region over the past biennium
4	World Food Congress and Future Direction of the Freedom from Hunger Campaign
5	Government Measures to promote the Transition from Subsistence to Market Agriculture
6	Measures for enlisting more Active Participation of the people in Rural Development
7	Raising Levels of Production and Productivity
8	Improving Processing and Utilization
9	Regional and World Economic Considerations bearing on African Agricultural, Fisheries and Forestry Planning and Development - African Trade in Agricultural Commodities in the United Nations Development Decade
9(suppl.)	Regional and World Economic Considerations bearing on African Agricultural, Fisheries and Forestry Planning and Development - The UN Conference on Trade and Development
10	Foreign Aid in Food and Agriculture: Organizational and Administrative Aspects

Background Papers

ARC/64/CONF/1	Director-General's Statement (Item B.4)
2	World Agricultural Commodity Trade - Prospects, Problems and Policies (a Reference Paper) (Item C10)
3	International Commodity Arrangements and Policies (Item C10)
5	Role of FAO in World Fishery Development (Item B4)
6	Mediterranean Project (Item B5)

List of Documents (Cont'd)

ARC/64/CONF/7	Resolutions on Agriculture and Industrialization (Item C9b)
8	Marketing's Training Centre (Item C7)
9	Agricultural Statistics (Item B5)
10	Introductory Statement by Dr. H.C. Pereira, Consultant (Item C9a)

APPLICATION OF SCIENCE
AND TECHNOLOGY TO AGRICULTURE

Raising Levels of Production and Productivity

Introductory Statement by Dr. H.C. Pereira - FAO Consultant

Bold new schemes based on the construction of dams, of major canals or of drainage works, permitting new settlement schemes, have strong appeal to the imagination and the aspirations of developing countries. As a result, such schemes too often distract attention from the more difficult, but much more important task of raising the level of productivity from subsistence farming to cash cropping. Where land tenure and traditional cultivation customs impose a major limitation on progress, schemes for the opening up of new areas may indeed have attractive advantages. Subsistence level farming, however, remains the major problem throughout the continent of Africa, a problem with which every single country must be deeply concerned.

It is so vast a problem that a one day discussion could easily become diffuse and inconclusive. I therefore suggest that we should attempt a systematic treatment on the following lines:

Firstly, and logically, we should begin with the appraisal of natural resources.

Secondly, we should discuss the raising of production in areas for which the main technical solutions are already tested and verified.

Thirdly, where the technical solutions are proposed but not yet confirmed.

Fourthly, where serious scientific problems must first be overcome by research, we should consider the most effective disposal of our scientific resources, particularly those of trained man power, and the most effective ways in which more developed countries overseas can assist in this vital task.

Firstly, the appraisal of natural resources.

It appears logical to begin the application of science and technology to agriculture in any area by an appraisal of the natural resources available for development. This is, indeed, necessary where the appraisal has not already been made. Most areas of economic importance in Africa have had some scientific exploration in the past 50 years, and very many competent resource surveys have already been completed and are on file. I have read many such reports and all stress the need for more factual data, especially of the physical environment. Meteorological data for rainfall, temperatures, frost incidence, and their integration in the form of an agricultural growing season, are of particular importance.

Wherever one, or, in some known cases, two or three such reports have already pointed out data deficiencies, it is a waste of time, money and staff to call for further surveys without making energetic attempts to provide the information needed. Thus the logical starting point for development is very often to study the available report and to make energetic

arrangements to collect the basic data needed for more effective appraisal of resources. Advice and help from other countries may well be needed for the collection of this data, but the repetition of a survey may merely lose another year or more.

Where pilot schemes have already been suggested they are the obvious foci for action.

Planning the appraisal of the geographical environment for an uninhabited area is, today, a straightforward application of existing scientific knowledge and method, but the study of a heavily settled area of subsistence farming is far less easy. One main difficulty is that the natural vegetation has often been destroyed or the climax groups rendered difficult to recognise, so that the ecological approach which is now recognised as of particular importance in tropical and sub-tropical areas, is severely handicapped.

Here, sound biometric techniques are very necessary tools in the assessment of the present levels of productivity. The limiting factors must be sought, not only in the natural environment, but in the social organisation and characteristics of the farmers, and in the economic infrastructure available to them.

Secondly, where technical solutions are already verified.

Here we must make a clear distinction between the case in which the limiting factors in production of agriculture, forestry or fisheries have been diagnosed, with proposals for improvement, and the cases where such proposals have been tested and verified on the spot.

Although it has been scattered and uneven throughout the continent, there has been a very great deal of technical progress particularly in the last two decades, and there are very many areas where the means of increasing production have been verified and demonstrated. It is all too easy to blame the lack of subsequent progress on psychological factors, conservative traditions and lack of education. Closer study, however, often reveals that the limitations are both financial and logistic.

It is quite impractical to haul heavy loads of fertilizer into accessible positions within a subsistence farming area except in the dry weather. Such foresight, in advance of the planting rains, needs credit, organised not on an individual basis, but on a scale substantial enough to finance economic loads for heavy transport. Unless the fertilizer, seed and implements are available within reach at the beginning of the rains, no amount of speeches or demonstrations can be effective.

Another severe limitation on the change from subsistence to cash crops is the provision, on the spot, of food supplies. Where a farmer can only just feed his family, he cannot afford to turn to cash crops unless the food supply is arranged, in advance of the planting season, from other sources.

Yet another limitation is often found in the arrangements for the purchase and transport of the surplus. This is particularly important, of course, in the case of livestock where the supply of goods and services, attractive enough to compensate the farmer for his sense of loss in parting with animals which confer social prestige, can be the critical limiting factor.

The military principle of reinforcing success applies with particular force to agriculture. Therefore, the place to apply the maximum effort in the raising of productivity must be the point at which scientific advice has been successfully verified.

Thirdly, where technical solutions have been suggested, but not tested.

This is potentially the most dangerous and wasteful of our groups of problems, because agricultural development in Africa is very complex and no group of experts can predict with certainty what hidden snags will arise in carrying out even the best technical advice. There are heavy penalties, all too well known in Africa, for plunging ahead without the necessary verification on experimental stations, on pilot schemes, and among selected, enterprising farmers. Whereas a successful crop or herd will convince both a farmer and his neighbours, a failed crop will deepen the prejudices against new methods.

In addition to the more obvious problems of drainage, of soil fertility, of salinity, of drought, pests and diseases, even such more subtle requirements as the selection of crop varieties suitable to the growing season available, and of animals whose hardiness matches the standard of management achievable, can determine the success or failure of a drive to increase productivity.

At the same time, of course, the economic background must be explored and tested. A simple seed dressing may serve to increase crop yields, but if the farmer cannot dispose profitably of the surplus he grows he is unlikely to make the effort again. The discovery of what products are marketable, when and where they are in demand, and what qualities will command a price enough to meet transport costs, is very often less easy than the solving of the more scientific problems.

The main lesson taught by experience in tropical agriculture is to check theoretical advice by practical tests. This is particularly important when ambitious changes in the matter of crop rotations and grass leys are proposed. I have heard more solemn theoretical nonsense talked about grass leys than about any other subject in Africa. This is a highly sophisticated technique of farming requiring a successful integration of arable and livestock husbandry. This takes years to develop, even in the most favourable areas of deep soils and good rainfall. On small farms with shallow soils and long dry seasons it may be completely impracticable. Such techniques must be thoroughly tested on the spot before being recommended to a subsistence farmer.

With cattle, as with crops, the first essentials for raising productivity are improved marketing channels to take off the surplus production. The obvious, but unspectacular elimination of unproductive stock, surplus bulls, barren cows, over-age oxen, and other passengers, to ensure that the available pasture goes to the productive breeding stock, is much more important than the introduction of exotic breeds. It is economics, rather than science, which must teach the subsistence cattle owner to keep a smaller number of more productive beasts.

With cattle, as with crops, the increase in the total nutrient capital in circulation, in particular the increase of nitrogen, is most often the essential trigger to higher productivity. But with livestock there is an even greater need for protection from pests and diseases. Only when the existing livestock has been given the opportunity to demon-

strate its potential productivity is there a basis for breed improvement by culling. It is very important that culling should be done by the test of the weighbridge and the milk bucket, and not by some theoretical ideal of how an "expert" thinks that a cow should appear.

It is worth mentioning here that modern genetical science has shown the futility of the very numerous "improvement herds" in which selection is practised within a number of animals too small to provide an adequate gene pool.

Every country in Africa can demonstrate the failures resulting from the introduction of high performance exotic stock before levels of management have been raised sufficiently to support the higher rates of productivity. Yet cattle experts from the temperate zones, on their first contact with African livestock, are still prone to giving the same mistaken advice.

Thus for our third set of conditions, where methods of raising productivity have been advised but not proven, we need a combination of good scientific direction at the top, with strong local practical husbandry experience in the field. The critical scientific knowledge for policy determination may sometimes be borrowed through technical aid, but the essential practical husbandry skill must be developed by local training in each ecological area.

The fourth situation, where serious scientific problems remain to be overcome by research.

This calls for very careful and responsible planning at both national, inter-state and regional or continental levels. All advanced research is expensive and, unless well planned, it can be both expensive and unprofitable.

The scarcity of scientists in Africa today imposes the need for the most critical planning of research priorities and of facilities to get the best results from the talent available. Statutory research councils, with authority and sufficient autonomy to provide freedom from political pressures, operating outside the restrictions of the civil service, have been found necessary in most of the more developed countries overseas.

In Africa, the area of importance of any given scientific problem is determined by geography and ecology, rather than by political boundaries. One central research team with competent scientists can often solve a scientific problem of importance to a group of adjacent territories, providing that communications are good. The rapid advance of air services is making such organisation increasingly practical and economical. Research councils, combining the interests of two or three neighbouring territories, therefore makes scientific sense.

We have good examples in both English speaking East and Central Africa where the East African Common Services Research Council serves Kenya, Uganda and Tanganyika, while the Agricultural Research Council of Central Africa serves Rhodesia, Zambia and Malawi. The French speaking countries of Africa have very great advantages in scientific coordination through the powerful and effective agency of O.R.S.T.O.M. Such measures for efficiency and economy in the employment of trained scientific man power in Africa are of the very greatest importance for the raising of agricultural productivity.

Measures of particular importance, which can be ensured by such scientific organisation, include the planning of research work with full biometrical assistance which has been so lacking throughout the continent in the past, and the overall ecological approach to agriculture and forestry which is so critically important in tropical and sub-tropical development. The enormous and necessary expansion of universities in Africa creates a problem for which a research planning authority is essential. The coordination of the work of research institutes which should have a purposeful project-team approach to specific major scientific objectives, with that of university science departments whose necessarily more academic and free-lance approach is essential both to scientific training and to the vigour of the scientific community, is a task which requires clear scientific thinking at the top level. Above all, such authorities must maintain the principle that science, in the service of man, can be effective only if kept clear of political entanglements.

The prestige of scientific research and the great hope which it arouses in Africa, tends to overshadow the essential nature of the many scientific tasks outside research. Scientists are in short supply all over the world, and an essential minimum number must be retained, in every country in Africa, in the crop protection, the quality control, and the diagnostic and advisory services without which the agricultural economy must fail. There is little sense in withdrawing men and women scientists from the essential tasks of today's agricultural production in the hope of solving the problems of the future.

I hope that this meeting will face up to the very critical situation caused by the acute shortage of all the disciplines of scientists in Africa today. The UNESCO Conference in Lagos recently estimated that, if Africa is to achieve a level of 200 science graduates per million of population, which is only one-fifth of the scientific strength of advanced countries overseas, more than 40,000 additional science graduates are wanted immediately. There are probably not much more than 5,000 science graduates actively engaged in scientific work in Africa north of the Limpopo, and about half of these are expatriates, many of them feeling an increasing insecurity of tenure.

Yet the number of African students entering science faculties is desperately small; among African science graduates, the losses to administrative duties and to the higher attractions of posts overseas is still serious. I believe that at present the net output of African scientists to the agricultural services is not even enough to replace the present rate of losses of expatriate scientists. Yet at every point in the process of raising the productivity of agriculture, forestry and fisheries, we come across the need for an increase in scientific work.

I believe that two immediate and urgent conclusions stem from this.

Firstly, that FAO should strongly support the recommendations of the Lagos Conference that the rewards and status of a scientific career should be enhanced to the level at which it attracts enough capable students to science in Africa. It is essential that the training facilities already created should be used to the full. We cannot afford to have half empty science classes in schools and universities, or half empty laboratories on our agricultural stations.

Secondly, because simple arithmetic shows us that this training effort cannot, by any known means, be achieved within less than five years and may well take ten, we should broadcast from this Conference an invitation to the agricultural scientists of the outside world to rally to Africa's help in the next few critical years. We need them as teachers in schools and universities, we need them to restore half empty laboratories to full productive strength, and we need them to help new African graduates to take on the heavy responsibilities as fast as possible. Brief visits by international experts can be of great value, but in research on crops, livestock and forests, they cannot replace the resident force of scientists who carry the work through from season to season.

The technical family of UN agencies provides excellent channels for bringing such men and women to Africa, but by their constitutions they do not, in general, offer permanent careers to scientists. Most of the best and most experienced of overseas scientists who can help us in the vast task of training and development in Africa have good careers and family responsibilities in their own countries. They cannot be expected to abandon these for the three to five years for which they are urgently needed. A visit of a few months is of little use in the fields of study with which we are concerned.

It is most important, therefore, that we should ask for the loan of these scientists under circumstances in which their return to their own countries is guaranteed. This could free the young African scientist from fears that his promotion may be blocked by more experienced expatriates, and could free the expatriates from the insecurity which is losing us, every week, scientists whose skills are vitally important to the future of Africa.

SUMMARY OF RECOMMENDATIONS

The wishes expressed at the Regional Conference and addressed either to Governments or to the Director-General of FAO have been grouped under broad action headings in an attempt to facilitate subsequent follow-up:

(a) Recommendations addressed to Member Governments

Increasing Awareness

1. To make full use of the opportunities provided by the FAO Young World Mobilization Appeal. (p 16:8)
2. To undertake research into the social institutions and other factors relevant for the motivation of people in the African region to adopt improved practices. (p 27:11)
3. To include representatives of farmers' organizations in their delegations to FAO Conferences. (p 23:15)

Comprehensive Economic and Social Planning

4. To follow up the recommendations of the 2nd Session of the African Commission on Agricultural Statistics. (p 12:11)

Adequate Rural Institutions

5. To establish the necessary contacts for the creation of training institutes and marketing organizations within the framework of the Mediterranean project, as well as for the financing of development projects. (p 14:24)
6. To give assistance to the rural population in establishing its own organizations, such as cooperatives, farmers' organizations and farm youth clubs. (p 23:11)
7. To establish facilities for training biometricians, either under suitable technical assistance programs or through a regional centre specially set up for this purpose. (p 27:11)

Application of Science and Technology to Production, Processing & Utilization

8. To give special attention to the recommendations of the First FAO African Regional Meeting on Animal Production and Health, with particular stress on
 - (i) extending the campaign against rinderpest to all the infested areas in Africa;
 - (ii) undertaking further studies on the possibilities of increasing slaughtering in the areas of production;
 - (iii) considering the possibility of inter-governmental agreements for the supply of meat, taking into account the relative economic and fiscal problems and the need for special health regulations. (p 11:7)

9. To increase regional and national action in the field of fisheries development. (p 13:21)
10. To promote the massive introduction of breeding of grain legumes and other crops suitable for the tropics, so as to provide a large pool of genes for selection, hybridization and improvement. (p27:11)
11. To consider the possibility of undertaking more national seminars and workshops in the field of home economics. (p 12:15)
12. To study the possibilities of more widespread utilization of local wood and wood products in the face of competition by imported materials. (p 28:17)
13. To carry out surveys in Africa to determine the availability of raw materials and processing possibilities. (p 29:21)

Promotion of Regional and International Trade and Cooperation

14. To pay careful attention to the recommendations of the first African regional training centre on the marketing of staple foods, held in Nairobi in August 1964. (p 17:1 p 19:13/14)
15. The Governments of developed countries to consider ways and means to put into practice the recommendation of the World Food Congress requesting the establishment of an International Solidarity and Development Fund based on the savings which may become available through the reduction of military expenditures. (p 39:3)

Miscellaneous

16. To undertake the responsibility of providing funds in the FAO regular budget to enable the Director-General to meet the administrative and other costs for properly conducting the FFHC Campaign. (p 16:5)

(b) Recommendations addressed to the Director-General of FAO

Increasing Awareness

1. To establish the Freedom from Hunger Campaign on a permanent and continuing basis within FAO. (p 15:5)
2. To pursue his plans for the Young World Mobilization Appeal. (p 16:8)
3. To develop a prestige publication which would appeal to the intellectual, business and industrial leaders of the world. (p 17:9)
4. To provide, as soon as possible, staff to assist FFHC Committees in Africa and to increase inter-committee cooperation. (p 16:5)
5. To increase its assistance to governments in the field of extension training. (p 23:14)
6. To cooperate, together with UNESCO, in conducting campaigns to make people understand the importance of agriculture. (p 24:17)

Comprehensive Economic and Social Planning

7. To undertake, in addition to recommendations of the 2nd Session of the African Commission on Agricultural Statistics, a study on the surpluses and scarcities in food production occurring in different parts of the region at various times of the year. (p 12:11)
8. To provide greater assistance in statistical training by making available greater numbers of specialized training advisers and fellowships. (p 12:11)
9. To undertake a study of sub-regional food balances. (p 27:11)
10. To take the necessary steps regarding the collection and analysis of documentation, in line with the recommendations of the second meeting of the Mediterranean Development Project. (p 14:24)
11. To pursue his proposals for an Indicative World Plan for agricultural production basing this on the objectives which countries have set for themselves. (p 15:4)

Adequate Rural Institutions

12. To make an inventory of the facilities for training and research in agriculture in the region and arrange for wide distribution of such information to Governments. (p 9:19 p 13:23)
13. To create a fisheries school for the whole of Africa for the training of personnel at all levels and in all specialties. (p 13:23)
14. To ensure that research institutions pay greater attention to applied research in the field of fisheries. (p 13:23)
15. To pursue as rapidly as possible and within the means at his disposal, the initiating of an international agricultural development institute. (p 15:2)
16. To establish, as soon as possible, an agricultural development institute for the African region. (p 15:3)
17. To lend his assistance in matters of cadastral survey and registration of title to those countries undertaking land reform measures. (p 20:15)
18. To examine in collaboration with ECA a number of Regional and Sub-Regional projects on rural development together with the possibilities for additional and effectively coordinated assistance to them. (p 21:21/22)
19. To undertake studies, in cooperation with local universities and Ministries of Agriculture, of the best ways of organizing, staffing, equipping and operating agricultural information services. (p 22:3)
20. To study, analyse and place at the disposal of African countries the experience acquired in the development of new forms of cooperation. (p 23:12)

21. To give all possible assistance, through the UN Special Fund and other means, to strengthening or establishing agricultural research institutions, including agricultural engineering, in individual countries or groups of countries. (p 25:4)
22. To intensify action under the Special Program of Agricultural Education and Training in Africa. (p 26:6)
23. To assist countries, through the UN Special Fund and other means, in strengthening or establishing professional and technical education and training institutions, including farmers' institutes. (p 26:6)
24. To review the facilities on a sub-regional basis for soil surveying and classification, including soil mapping and soil research in relation to hydrology, chemical composition, fertilizers, machinery and implements, with a view to strengthening existing facilities or establishing new ones. (p 27:11)

Application of Science and Technology to Production, Processing and Utilization

25. To assist Member Governments in Africa along the lines of the recommendations of the first FAO African Regional Meeting on Animal Production and Health:
 - (i) with the additional request that the Emergency Fund for the Control of Animal Diseases be not limited to Africa - and with special emphasis on
 - (ii) the extension of the campaign against rinderpest to all infested areas;
 - (iii) the studies on the possibilities of slaughtering in areas of production;
 - (iv) inter-governmental agreements for the supply of meat. (See recommendation to Governments No.8) (p 11:7)
26. To explore opportunities for the use of electronic computers in the analysis of data needed in agricultural research and the application of science and technology. (p 26:4)
27. To expand and expedite activities in the African Region in the fields of soil studies, farming practices and inventories of forest and fishery resources. (p 26:7)
28. To initiate action in cooperation with other agencies and organizations to assist in the implementation of Governmental recommendations numbers 2, 7 and 10. (p 27:11)
29. To explore, in cooperation with African countries, the scientific, technical and economic measures needed to overcome the obstacles created by shifting cultivation. (p 26:7)
30. To initiate international control measures against *Quelea Quelea* as adopted by the 12th Session of the FAO Conference. (p 26:9)
31. To organize a seminar on forest inventory including aerial inventory for Africa. (p 28:17)

32. To study the possibilities of more widespread utilization of local wood and wood products in the face of competition by imported material. (p 28:17)
33. To assist countries in Africa on the setting up of plants for the processing of such crops as wood into pulp and paper, processing of vegetable oils, cassava, cereals, cocoa, coffee, tea, rubber, fibres, fish, etc. (p 28:18)
34. To survey existing processing activities and methods in Africa and thus enable countries to benefit from the experience of others in the Region. (p 28:21)
35. To assist in the design and building of simple storage facilities. (p 29:22)
36. To extend more assistance in the field of processing and marketing of milk, meat, hides and skins. (p 29:23)
37. To organize a training centre on processing in Africa, similar to the one on marketing of staple food crops recently held in Kenya. (p 29:31)
38. To undertake studies into the social, cultural and other factors involved in the impact of rapid industrialization and urbanization on the nutrition of both immigrants and the local population. (p 13:15)
39. To include as an important item on the agenda of the Thirteenth Session of the FAO Conference and of the Fourth Regional Conference for Africa, the subject of agricultural industrialization. (p 28:20)

Promotion of Regional and International Trade and Cooperation

40. To consider ways and means of strengthening work on the methods of regulating trade to assist development, in cooperation with ECA, with the Economic and Social Commission of OAU and with the UN Conference on Trade and Development and its organs. (p 30:2)
41. To give special consideration within the work on trade and development to: (a) preparatory work in the negotiation and effective operation of international commodity arrangements, including consultations designed to improve the coordination of policies on a world-wide front; (b) improved national and regional programming, with special reference to commodity projections and commodity advice to governments on export promotion and import substitution of their main products, including the expansion of processing and intra-regional trade; and (c) intensification of analytical studies and policy guidance to assist governments of the region in expanding their real primary export earnings at rates sufficient for meeting the import requirements of their development programs. (p 30:2)

42. To carry out, in cooperation with the Economic Commission for Africa, a special survey of regional export and import outlets for commodities produced within the region, with a view to promoting intra-African trade. (p 35:10)
43. To initiate studies on cost formation processes of both production and selling prices to assist governments in reducing the former and assisting them in their deliberations on inter-governmental agreements for guaranteed prices to producer-countries. (p 36:18)
44. To consider means of developing basic studies on competition between synthetic and natural products, including collection of consumption data by end-uses, analysis of competition between synthetic and natural products within each major end-use, and review of development programs of the synthetic and natural industries in the light of demand prospects. (p 37:20)
45. To consider arrangements for publication of an expanded version of the review presented to the Conference on the outcome of the UN Trade Conference and of its commodity policy implications. (p 31:5)
46. To lend the facilities of FAO for the confrontation of agricultural policies at the regional level, or on a broader basis where appropriate, and to cooperate with ECA in its studies of the African Common Market. (p 35:10)
47. To give consideration to the possibility of establishing a post of Regional Commodity Adviser for Africa. (p 35:14)
48. To give special consideration to the development of the program of special studies on selected policy issues. (p 36:15)
49. To carry out an analytical review of commodity arrangements of the principles governing such arrangements, and related policy issues, and to consider the possibility, within available resources, of initiating such a full review even within the current biennium. A special feature of such a continuing review should be the examination of the mechanism of quota determination and of the criteria for setting production goals of exporting countries. (p 35:16/17)
50. To consider ways of furthering studies on the economic aspects of processed products and agricultural processing industries including the collection and analysis of data on production, raw material content, consumption, international trade, stocks and prices of processed agricultural commodities; the study of trends in international trade in such commodities; analysis of the technological and economic characteristics of certain processing industries; the comparative advantages of exporting processed or semi-processed goods as against agricultural raw materials; and the role of processing industries in economic growth of developing countries. (p 37:22)
51. To consider the possibility of specialized enquiries into the composition of distribution and processing margins in importing countries and possibilities of reducing them. (p 37:24)

52. To encourage the Committee on Commodity Problems to continue its studies on individual commodity situations whilst relating them more directly to problems of development. (p 38:28)
53. To invite the Committee on Commodity Problems to consider setting up inter-governmental machinery for oilseeds and oils, or alternatively extending the present terms of reference of the FAO Group on Coconut and Coconut Products. (p 38:28)
54. To promote remunerative marketing of the Region's production, compatible with the requirements of development, and so lead to independence from outside financial aid. (p 39:2)
55. To investigate the possibility of establishing a Fisheries Commission to Eastern Africa. (p 13:22)
56. To appoint a Fisheries Officer for Eastern Africa. (p 13:22)
57. To follow up the recommendations of the First African Regional Training Centre on the Marketing of Staple Foods, and consider the establishment of an African Marketing Commission. (p 17:1, 19:13/14)
58. To extend the studies of probable future demands, both domestic and external, for food and agricultural raw materials produced in the Region, and to prepare a handbook on demand analysis for studying domestic and foreign commodities. (p 12:10)
59. To investigate means of bringing about closer coordination and co-operation between African countries through the establishment of an African Food and Agriculture Research Bureau. (p 25:4)
60. To consider together with the IBRD and the Special Fund, the need for extending financial aid to renewable public expenditures necessary for development. (p 39:4)
61. To study, with the authorities of the Special Fund, the possibility of liberalizing the regulations on local financial contributions to Special Fund projects. (p 39:6)
62. To pursue with the Special Fund the efforts to obtain an equitable reimbursement of the expenses which FAO has to incur in the preparation and implementation of projects. (p 40:10)
63. To assist in obtaining technical staff from developed countries under conditions which assure continuity of their careers on returning home. (p 40:8)
64. To prepare a handbook explaining the scope and function of the various aid-giving bodies. (p 40:8)
65. To examine in more detail, through his Regional Representative, the question of the change of character of the Regional Conference in relation to the participation of Non-Governmental Organizations, scientific research and educational bodies, etc., so that final consultations can take place before the 1966 Regional Conference. (p 17:10)

Miscellaneous

66. To investigate the possibility of establishing joint programs with other institutions along lines similar to that initiated between FAO and the IBRD. (p 11:5)
67. To recruit on an increased and proportionate basis English and French speaking Africans for technical and administrative staff for international work. (p 11:4)
68. To establish machinery for assessing the usefulness and suitability of the training of fellows in relation to the jobs they have to undertake after completing their fellowships. (p 12:14/15)

