

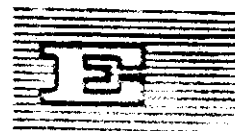
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TECHNICAL ASSISTANCE PROVIDED TO COUNTRIES OF THE ECA REGION UNDER THE EXPANDED AND REGULAR PROGRAMMES

(Prepared by the TAB secretariat)

Contents

	<u>Page</u>
I. INTRODUCTION	1 - 3
II. EXAMPLES OF TECHNICAL ASSISTANCE ACTIVITIES IN 1963	4
A. Economic Planning and Statistics	4
B. Natural Resources Development and Power	6 - 8
C. Industrial Development and Productivity	8 - 9
D. Transport and Communications	10 -13
E. Agriculture, Forestry and Fisheries and Animal Husbandry	14 -19
F. Auxiliary Services to Industry	19 -23
G. Public Administration	23 -27
H. Public Finance and Financial Institutions	27 -28
I. Health	29 -35
J. Education	35 -47
K. Housing, Physical Planning and Building	48 -49
L. Community Development	50 -51
M. Other Social Services	52 -53
N. Atomic Energy	53 -54

LIST OF TABLES

TABLE I	Cost of field Programme in Africa 1961 - 1963
TABLE II	Experts' Assignments in Africa 1961 - 1963
TABLE III	Fellowships awarded to countries and territories of Africa, 1961 - 1963.

I. INTRODUCTION

1. This information paper has been prepared, in accordance with established practice, for the Economic Commission for Africa. It describes some of the technical assistance provided in the ECA region during 1963 by the United Nations, the Specialized Agencies and the International Atomic Energy Agency (IAEA) under both their regular programmes and the Expanded Programme of Technical Assistance (EPTA). Examples are also given of assistance provided under the OPEX scheme.

2. As in previous years, the projects are presented under a series of subject headings and are based on material provided by the Organizations participating in EPTA. No attempt has been made to provide a complete survey of all technical assistance activities in the ECA region, and examples have been selected, either because they have some interesting features or because they have reached a stage where a broad evaluation seemed possible.

3. Table I shows the actual expenditure under the Expanded Programme of Technical Assistance and the Regular Programmes of the Participating Organizations in 1961 and 1962, on a country-by-country basis. The figures shown in this table for the 1963 EPTA programme are one half of the approved programme costs for the biennium 1963-64, plus contingencies approved up to 15 November 1963, and the figures shown for the 1963 regular programmes are an up-to-date estimate. Table II shows experts serving during the same years on a country-by-country basis, and Table III similarly shows fellowships awarded. The figures shown for 1961 and 1962 in Table II and Table III are actual figures. In the same tables, the figures shown for the Expanded Programme in 1963 are approved posts and awards, including those under contingency allocations made up to 15 November 1963, while the figures shown for the regular programmes are again up-to-date estimates. Table IV shows the division of the programme in the region into the main fields of activity.

4. Details of the whole Category I 1963-64 Expanded Programme, as approved, may be found in document E/TAC/L.281 of the Technical Assistance Committee, and a statement of projects authorized during 1963 under the contingency authority of the Executive Chairman, is available in document TAB/WCR/L 972.

5. Voluntary contributions pledged by governments of the ECA region to EPTA continued to increase, showing growing support. The totals for the last four years are as follows:

1961	\$511,762
1962	\$532,880
1963	\$761,387
1964 (so far)	\$746,478

These figures do not include the local cost contributions of recipient countries nor the counterpart expenditures related to technical assistance activities. The influence of ECA on the technical assistance operations of the United Nations family has also been increasingly felt and has been a valuable contribution to the programme.

6. In the year since the last session of the Economic Commission for Africa, one important change has been introduced into the Expanded Programme of Technical Assistance. It was resolved by ECOSOC at its summer session of 1963 that OPEX-type appointments could be made under the Expanded Programme. That is to say, experts might be appointed, at the request of recipient governments, who would work as servants of these governments and not merely as advisors. They could be invested by the recipient governments with authority to take decisions in their own names and they would not report to the Participating Organizations who recruit them. Part of the cost of such experts would be borne by the recipient governments. This resolution was subsequently ratified by the General Assembly.

7. In the information paper on this subject which was presented to ECA last year, reference was made to the two-year programming system. The first two-year period was completed at the end of 1962, and careful reviews

have been made of its value. The conclusion has been reached that it is an improvement over one-year programming, and it will therefore be continued.

8. Reference was also made to project programming, which was to be introduced in preparing the programme for 1963-64. As far as actual programme operations are concerned, it would seem that this system has worked well, but it will not be possible to make a full evaluation of its merits until after the end of 1964, when a full programme period using the project programming method will have been completed.

9. Meetings between the Resident Representatives of TAB and senior officials of the Secretariats of each of the Regional Commissions, which are also attended by the Executive Chairman of TAB, by the Managing Director of the Special Fund or his representative, and by representatives of the Specialized Agencies, have now become an established annual practice. They not only provide an opportunity for roundtable discussions, but time is also allowed for individual private conversations between the members of the various organizations concerned. It has been found that these meetings are of considerable value.

II. EXAMPLES OF TECHNICAL ASSISTANCE ACTIVITIES in 1963

A. Economic Planning and Statistics

The year 1963 witnessed a great increase in the demand for United Nations technical assistance in the field of economic planning, and the number of African countries and territories assisted in this way was about twice the 1962 figure. In addition to this assistance, most of which was of a long-term nature, experts were provided for assisting groups of countries like the EACSO group and the Rwanda-Burundi group, while the regional advisory services attached to the ECA secretariat were further strengthened.

There was a wide variation in the type of requests received and acceded to in 1963, depending on the countries' needs and their stage of development; some requests were for a continuation of existing projects, while others were for new projects of varying duration, but it can be said in general that, in all requests, emphasis was placed on the necessity for providing senior experts well acquainted with the modern techniques of economic planning and also having experience of the problems of newly developing countries, preferably of the African region.

Requests were received from both the "older" and the newly independent countries of the continent and from countries in the process of attaining their independence. Cameroun, Morocco, and the Sudan are examples of "older" countries that continued to receive assistance in the field of economic planning in 1963, while Algeria constitutes an example of a newly independent country assisted in this way; an expert was provided to this country in the very early days of its independence and a request for additional assistance has already been approved. The expert helped the country in establishing its technical assistance requirements and paved the way for the drafting of the first economic development plan. Among the countries in the process of attaining their independence, Kenya, Nyasaland and Rhodesia were provided with experts and a survey mission was also assigned to each of the last two countries in the course of the

year. The mission to Nyasaland completed its task in 1963, but the Rhodesia mission will continue into 1964.

Efforts to promote statistical development in the region continued to receive support from the United Nations technical assistance programmes. An intensive programme of training constitutes an important feature of these efforts, and stems from the urgent necessity of replacing departing expatriate staff with local personnel in newly independent countries, the general shortage of middle level assistance in most African countries, and the new requirements to meet rapid expansion of statistical organizations. Training is being provided through regional and national centres established with United Nations assistance. These centres, which were described in some detail in TAB's report to the fifth session of the Economic Commission for Africa (pp. 5-8, English edition of E/CN.14/210), entered their third year of operations toward the end of October 1963. Thus, the four middle-level centres at Addis Ababa, Achimota, Yaoundé and Abidjan accommodated a total of 178 trainees from 25 countries during their first two years of operations, and the Rabat Centre, which offers a two-year course at the professional level, accommodated approximately 75 trainees from six countries. With a view to co-ordinating statistical training activities throughout the region, the objectives being common standards of training and courses of instruction properly adapted to African conditions, two sub-regional meetings of Heads of Statistical Offices were convened in 1962, one for West and the other for North and East Africa. In addition, a meeting of all directors of the Centres was held in Addis Ababa in April 1963 for consultations on the same topics. The results of these meetings were submitted to the Third Conference of African Statisticians, which agreed that uniformity of curricula and examinations in the principal subjects should be the continued aim for centres operating on an international basis. While considerable progress has been made towards training statistical personnel, both the Economic Commission for Africa at its fifth session and the Conference of African Statisticians at its third session have stressed the need to expand existing facilities and provide new ones.

Provision continues to be made for countries requiring expert assistance in specific fields of statistics. At the end of October 1963, 39 experts were serving 21 countries in Africa. In addition, the Regional Advisory Service at the Economic Commission for Africa, composed of five advisers assigned under the technical assistance programme and three regular Economic Commission for Africa staff members, continued to respond to the short-term requests. During the course of two years this service conducted over fifty assignments, varying in duration from a fortnight to several months or longer, to twenty-three countries in the region. They gave advice on questions relating to population census, vital registration, national accounts, public accounts, external trade statistics, household, manpower and multi-subject and other sample surveys. In some places they were called upon to examine national statistical programmes and requirements for technical assistance. At least three of the regional advisers contributed to the teaching at the United Nations sponsored training centres in Africa.

B. Natural Resources Development and Power

Technical assistance activities in respect of natural resources development in Africa were intensified in 1963 both in terms of the number of projects and of the assistance provided, and integrated development has now become a widely adopted approach. The development of the Senegal Basin, the Niger Basin, the Mono Basin, and the Nile Basin in Uganda are a few cases in point. It is anticipated that increased assistance will be required in connexion with these and other river basin developments in the years ahead. Assistance was provided to a large number of countries with a view to initiating large-scale projects to be implemented under other programmes of the United Nations and, at the request of Dahomey and Togo, two missions were organized to help with a joint electrification project request to the Special Fund. As a result of increased requests for assistance, a regional cartography adviser was appointed for Africa, in addition to the regional mineral and water-resources advisers. Extensive

projects are being carried out in a number of countries in this field and assistance continued to be provided to the Governments of Cameroun, Mali and Somalia in connexion with training of local technical personnel, the preparation of regional and national maps, and the organization of cartographic services.

In the field of mineral resources some important projects were developed and the implementation of others continued with the assistance of United Nations experts. In Madagascar, the mission in mineral resources exploration was reinforced by the provision of two additional experts in order to intensify exploration for alluvial gold, the production of which has declined in recent decades. The services of two experts were also provided to advise on the production of semi-precious and ornamental stones, including cutting. These projects will continue into 1964. In Upper-Volta, a geological adviser continued work on surveys and the programming of mineral resources exploration. In order to promote the development of mineral resources, a mining legislation expert was also provided. In Ivory Coast, assistance continued on the organization and operation of a geological laboratory. Provision was also made to strengthen this project by sending a minerologist and a chemist, who were under recruitment at the time of reporting. In Tunisia, a geologist who has been in the field since 1960 continued his work on mineral resources exploration and development. In addition, the services of a mineral production expert were provided to assist in the exploration and mining of non-metallic materials. A mining legislation expert assisted the Government of Ethiopia in the enactment of modern mining laws.

Expert services were made available to a number of governments in connexion with the mining of specific ores, rather than mineral resources development of a general nature, as with mica in Sudan and ilmenite in the United Arab Republic.

In the field of water resources, assistance was provided to a number of countries in connexion with single and multi-purpose schemes of ground-water and surface water development. A hydrogeologist was assigned to

the Government of Dahomey to assist in groundwater resources surveys and hydrogeological studies, and two experts were made available to the Government of Guinea to advise on technical and other problems involved in groundwater resources development in the country. Similar services were provided for the Governments of Mali and Mauritania. Two hydrogeologists were provided to Nigeria to assist in groundwater exploration and development. One expert was assigned to the Government of the Northern Region, to advise on such works as the organization of a hydrological service, a programme of hydrological investigations, and the training of local technicians. This project will extend into 1964. The services of the two hydrogeologists were made available to the Government of Upper Volta to assist in the organization and operation of a hydrogeological service, training of technical staff, formulation of groundwater development projects and hydrogeological investigations. One expert has completed his mission, and the other will stay on until October 1964 to assist the newly created Hydrogeological Service in its groundwater exploration, water supply and other works. A team of experts continued the work on multipurpose development in the Senegal Basin. This project was formulated upon the request of the Governments of Guinea, Mali, Mauritania and Senegal, and had been under implementation since 1962. The mission completed its work in April 1963.

C. Industrial Development and Productivity

Until recently, assistance to industrial development in Africa has been of a modest nature. Of some thirty-two emerging independent African countries, only thirteen have requested and received industrial experts in the last ten years, but a beginning has been made by the United Nations to studying the requirements of the African countries in a systematic way. For example, in Algeria, a recommendation was made to send an iron and steel expert for a short-term, a petro-chemicals expert also for a short-term and a planning economist for a longer period of time. The iron and steel expert has already reported and a petro-chemical expert is under recruitment. The long-term planning economist is now on assignment.

In the case of Cameroun and Guinea preliminary surveys of some months duration opened the way to clarifying the basic requirements of these countries. In Tanganyika, where a trade-promotion expert with a junior associate has been training local small-businessmen and has drafted a request for a training institute, it is now proposed to furnish a small survey group to come to grips with possible patterns of development. Similar survey proposals have been made for Sudan. An excellent example of both a team and a joint approach in bringing a vigorous effort into problems of industrialization is a recently organized survey mission in Northern Rhodesia. The survey team is a combined effort of United Nations, Economic Commission for Africa and Food and Agriculture Organization. A chief of mission, a general economist, and an agricultural planner who is a general agriculturist, a fiscal planner, an expert in rural institutions and an industrial economist will take the field to advise on the future pattern of industrial development.

Other projects of the United Nations, in 1963, which were directly connected with industrial development in Africa, included a management expert and an industrial economist who worked in Ethiopia, another industrial economist in Ghana, and a third in Guinea. In Liberia, an expert in industrial development continued his assignment. Another industrial development expert completed an assignment of over two years in Morocco and an industrial engineer also completed a two-year assignment in Niger.

In Somalia, an industrial accountant began his mission towards the end of the year, and an expert in technical institutes started work in the Sudan at about the same time. A trade promotion expert completed a two-year assignment in Tanganyika, and a chemical industries expert left Tunisia at the end of a shorter stay. The United Arab Republic had two United Nations experts in this field during 1963, one a metallurgist, who completed his assignment, and the other an industrial cost accountant who is on a long-term mission.

D. Transport and Communications

UNTA assistance to transport development in Africa during the year remained on a modest scale. Most of the experts assigned were in road transport, with others in railways, ports and shipping, and river navigation. One important step taken was the appointment of a transport economist and a civil engineer who were attached to Economic Commission for Africa. The two advisers assisted governments in assessing general transport problems and in undertaking specific tasks, and provided advice to a number of countries on the formulation of requests for assistance under UNTA and the Special Fund programmes amongst other things. Another feature of the year's programme in Africa was the greater emphasis placed on tourism.

The United Arab Republic programme remained the largest among those for African countries. Areas covered by expert activities included the co-ordination of transport, transport statistics, railway organization and workshops, road erosion, road transport accounting, river training, shipyards, ship loading and unloading operations, diving and underwater welding, and the planning of public transport services. In addition, an expert provided advice on the development of tourism. Most of these expert assignments were for a short-term and with specific objectives, as required by the developing economy of the country. The provision of expert services was supplemented by a relatively large number of fellowships to train United Arab Republic nationals to follow up the work of experts or to implement the experts' recommendations.

UNTA assistance in road transport, though modest in size, covered several aspects. In Burundi, for example, two experts were assigned to an emergency mission for restoring and repairing the roads which had been damaged by floods. Civil engineers worked on road building or improvement in Guinea and Sierra Leone. Traffic regulations on highways were tackled in Ethiopia, and the question of toll road financing in Kenya.

Transport economists were sent to Mali and Somalia for transport planning, and to Rhodesia and Nyasaland for improving transport management. Experts in public works, generally were provided to Somalia and Togo, and in such cases, transport work constitutes an important part of the terms of reference. Among other technical assistance missions were those for studying problems of ports and shipping in Congo (Brazzaville), and for providing advice on river navigation, urban transport and traffic engineering in Cameroun.

In civil aviation, a number of existing projects have been continued and in some cases expanded. In Ethiopia, for instance, ICAO has continued to provide advice and assistance in civil aviation administration, airworthiness, aerodrome engineering, personnel licensing, radio maintenance and communications operations and, in Liberia, a civil aviation adviser has continued to advise on the activities of the department responsible for civil aviation.

Among the most significant new advisory projects undertaken in 1963 has been the assignment of a civil aviation administrator to Somalia to follow up on the recommendations of an ICAO survey carried out during the previous year. The expert has concentrated up to the present on the organization of a civil aviation department, development of civil aviation legislation, and on the selection of candidates for overseas training.

Although demand has not slackened for the advisory services of ICAO experts, the main effort during the current year has been devoted to training nationals of emerging countries to operate their own services. For example, in East Africa, an ICAO mission, at the request of the East African Common Services Organization, is assisting the Governments of Kenya, Uganda and Tanganyika in the training of their nationals as air traffic controllers, radio engineers and radio and teleprinter operators. Six ICAO instructors have been assigned to this project, which started in January 1963 at the Nairobi Training Centre for Civil Aviation. It is expected that some seventy to eighty traffic controllers and about forty-five radio engineers will be trained by December 1966; it is also planned

to train a pool of twelve radio and teleprinter operators during the period 1963-1966.

In Nigeria a civil aviation training adviser is preparing a plan of operation for a Civil Aviation Training Centre to be assisted by the Special Fund and in the United Arab Republic two radio and teleprinter maintenance instructors have assisted in developing communication services at the new Cairo airport. Nationals of Burundi, Ethiopia, Madagascar, Mali, Rwanda, Senegal, Somalia, Sudan, Tanganyika, Tunisia and the United Arab Republic have been awarded fellowships, many of which are tenable at regional civil aviation training centres such as those in Tunisia, Morocco and the United Arab Republic, which are operated with Special Fund assistance.

Regional co-operation has been emphasized. Thus an ICAO air transport economic adviser has been appointed to work with the Transport secretariat of Economic Commission for Africa in a project calling for an African air transport survey involving evaluation of existing and future route networks, collections and interpretation of statistics and other economic aspects of air transport in Africa including assessment of the advantages to be derived from regional co-operation. Experts assigned to regional projects in the field of airworthiness and fire rescue services have visited Ethiopia, Ghana and Liberia.

A survey of meteorological telecommunications installations and needs in nearly all African countries has been carried out by a WMO expert. The survey was designed to provide a basis for recommendations for improving national meteorological telecommunications systems.

The Technical Assistance given to African countries by ITU within the framework of the EPTA programme is designed to provide guidance on all technical aspects of telecommunications development, including the fixing of telecommunications charging rates and tariffs.

In March 1961, the Governments of the Central African Republic and the Republic of Chad suggested a joint telecommunications training project by which the ITU would provide technical assistance necessary for two training schools, one in each country. The first, in the Central African Republic, was to concentrate on telephony and line techniques, while the second, in Chad, would concentrate on radio training. An expert took up his post in September 1962 and will continue to supervise the activities of the Chad school, and the initiation of training courses at the other school until at least the end of 1964.

An expert in the United Arab Republic undertook a study of requirements for long-distance telephone systems and helped with the detailed planning of a basic telecommunications network. In view of the urgency of the matter the ITU expert was required, in co-operation with his Egyptian colleagues, to produce a report within the space of three months and succeeded in doing so.

E. Agriculture, Forestry, Fisheries and Animal Husbandry

The main recent development concerning FAO assistance in agricultural planning has been the establishment, under the Organization's regular programme, of a task force of three senior agricultural planning economists to undertake short-term advisory missions, primarily in African countries. This arrangement is designed to complement the assistance available under EPTA, and it also enables requests for FAO participation in missions organized by other international organizations to be met without the delay involved in recruiting a succession of outside consultants.

Although the task force has been in operation for only a short time, the number of requests for assistance is growing rapidly. One member, for instance, has participated in a recent United Nations mission to Nyasaland. His terms of reference were to review and analyse problems of agricultural development within the framework of the economy as a whole, to suggest priorities, and to indicate the type of more detailed survey needed for long-term planning. The expert has already returned to Nyasaland for further study and advice on particular problems of agricultural development policy.

Short-term advisory missions have also been undertaken by members of the task force in Cameroun, Ethiopia, Swaziland, Uganda and Zanzibar.

FAO has also continued to advise governments, under the Expanded Programme, on agricultural planning. In this connexion, a particularly important mission was sent during the period under review to Nigeria to draft a concrete and integrated programme of agricultural development, including rough estimates of financial costs. The team, composed of sixteen specialists in various fields, arrived in Nigeria in October 1962 and spent about nine months in the country. All members of the team have now completed their field investigations and have returned to FAO Headquarters for discussions on technical questions and to prepare initial reports. The final report of the mission is expected to be ready by the end of December 1963. In addition to long-term guide-lines and broad policy objectives for the development of agriculture, the report will

underline specific fields of action and projects which could be undertaken by the Government of Nigeria both under the current and future development plans.

Particular importance is attached to this mission, both because a comprehensive survey of agricultural resources is considered essential for planned development in Nigeria and because the recommendations of the mission are expected to have an impact on the other countries in Africa which have similar problems.

Finally, attention is being given to training in the techniques of agricultural planning. Thus, in 1963, a special five-months course, attended by 35 fellows, 20 of whom were from Africa (half from English-speaking and half from French-speaking countries) was organized under the Regular Programme. The first two months, devoted to orientation lectures and seminars on general problems of economic and social development, was held at the Institute of Social Studies at The Hague. The remainder of the course, held at FAO Headquarters, consisted of training in agricultural development and planning techniques.

Difficulties are often encountered in implementing development plans owing to the failure to take into account, at the time when they are prepared, the administrative capacities of ministries of agriculture and the dispersal of authority throughout governments in the field of agricultural development. There has, consequently, been a growing demand by governments, to which FAO has responded, for assistance in strengthening the organizational structure and services required for stimulating agricultural productivity. Thus, in Ethiopia, an FAO expert has been advising the Government on measures to strengthen the organization and administration of the Ministry of Agriculture, including services to rural producers, technical programmes, and agricultural development projects. The work is directly connected with the implementation of the agricultural development plan. A member of the task force mentioned above joined this expert for discussions with the Government on the proposed structural reorganization of the Ministry necessary to implement the Development Plan. Subsequently, FAO, at the request of the Government, advised on the proposed reorganization scheme, many parts of which are already being implemented.

FAO activities in land use and farm management in Africa have included a number of projects. Among these may be mentioned land use surveys in Cameroun, Nigeria and Sierra Leone and FAO assistance to the Government of Nigeria in farm planning for land settlement. The Nigerian Government had already initiated a bold scheme of land settlement before requesting, in 1960, the technical aid of FAO on a payment basis for two years. A farm management expert was provided as a member of an FAO land settlement team to help the Government in planning and organizing the settlement project which aimed at establishing primary and secondary school graduates on large government-organized farms in order to improve rural living standards and modernize agriculture. The FAO team was able to make a positive contribution to the planning and labour efficiency of the project by suggesting measures which reduced capital requirements per farm, increased net farm income, simplified and improved book-keeping procedures and reduced the number of settlers leaving the farms for other work. The experts also sought every opportunity to train local personnel in farm planning. Twenty settlements have been established and sufficient personnel have been trained to continue the project satisfactorily after the departure of the experts.

An example of a successful agricultural engineering scheme is the farm implement project in the Niger Republic, where farm operations are performed almost entirely with manual labour and hand tools. The main problem of the country is to increase agricultural production. This could be solved by introducing and extending the use of animal-drawn implements and transportation. In 1962, FAO made available the services of a farm implements expert who determined the most suitable types of implements to be used, developed appropriate animal harnesses and then concentrated on the demonstration of certain implements and on the training of local extension workers in their use. The impact of this project could already be noticed in 1963 in the area where the expert had concentrated his main activities. Farm implements are becoming popular and cattle and donkeys are increasingly used for drawing them, with the result that work is speeded, crops are better cared for and yields are higher.

In the field of water development and irrigation, the well-integrated project in Tanganyika, mentioned in last year's information paper (document E/CN.14/210 p.18) has continued to develop and is now being re-orientated. The senior irrigation and water development expert has produced a final report on the "Water Resources Potential of the Wami Basin" and is due to leave the country before the end of 1963. An irrigation expert will take over, but his activities will be orientated more towards the construction of pilot sectors than towards basic surveys. Another irrigation expert, however, is continuing to survey the irrigation potential in the central and western provinces of Tanganyika. Recommendations for the reorganization of the Tanganyika Hydrological Service, formulated by the FAO Hydrologist, are being implemented. Great emphasis has been placed on the training of local technicians, and a training course with thirty participants has been successfully completed. The three best students have been awarded fellowships to complete their training in the United States. An associate hydrologist will join the hydrological expert before the end of 1963.

A number of programmes specifically designed to increase food production have also been initiated. One of the most successful of these has been in the Sudan where, after seven years work by three FAO rice agronomists, two improved varieties of rice have been selected and are now commonly grown; experiments in pest control and fertilization have been carried out to improve production still further. The project has been so successful that it is expected that the country will soon not only be self-sufficient in rice, but will also have a surplus for export.

In Morocco, citrus production is important to the economy and oranges are a major export. Attacks by insects, particularly scale insects, greatly reduce the quantity and quality of the produce of unprotected trees. Control of insect pests by chemical means is both costly and causes the destruction of many natural parasites of insects, thus creating more problems than those solved by spraying. At the request of the Government an FAO entomologist has initiated a research project comprising a study of the natural parasites of citrus pests in Morocco, the introduction of

new parasites, including the development of methods for their mass production in the laboratory for release in the field, and the testing of pesticides which may be used occasionally and which will do the least harm to insect parasites. This research has led to the construction by the Government of modern laboratories for the investigations, and to the implementation of large scale field programmes.

The lack of fresh vegetable production in some very populated areas of West Africa has often been noted by nutritionists concerned with problems of malnutrition due to a starchy diet. There is also a need for developing local horticultural production in order to reduce the import of fresh vegetables into many West African cities. A horticulturist was therefore appointed to the Ivory Coast in 1962 to develop market gardens near the capital and other large cities. Field trials and demonstration gardens were established, the training of local growers in improving their cultural techniques was organized and improved types of vegetables were introduced. The sale on a co-operative basis of standardized quality products was also organized. Although the project has not yet been completed, very promising results have already been obtained.

Recognizing the need for special assistance to Africa in education and training, the eleventh session of the FAO Conference approved a Special Programme of Agricultural Education and Training, with an appropriation of \$800,000 in 1962-63. The primary purpose of this programme is to assist countries in planning, strengthening or establishing the permanent institutions required for the effective training of personnel at all levels in all specialized fields of food and agriculture. A secondary objective, given special attention during the 1962-63 biennium, is to assist in meeting the immediate needs for personnel by short-term training measures. The Office of African Agricultural Education and Training was established in January 1962 to implement the programme approved by the Conference. Up to the present, six general agricultural education advisers have been appointed in various sub-regions of Africa to assist in planning and in the improvement of agricultural institutions and training programmes. Agricultural education consultants have been

seconded to UNESCO education planning and to ILO manpower survey missions. Many education advisers have been supplied in the specialized fields of food and agriculture. Short-term training centres have been conducted and sub-regional seminars have been organized with the participation of agricultural administrators and educators to promote discussion on mutual problems and to facilitate regional co-operation in the development and utilization of facilities for higher education in agriculture.

Education and training projects have also continued to be undertaken under EPTA. At the beginning of 1963, for instance, an educational expert was assigned to Tanganyika to assist in organizing agricultural training at all levels.

FAO has also given all its support to training centres for local field level workers. Thus, for example, an FAO agricultural extension expert has been attached to the ASFEC training centre at Sirs-el-Layyan, near Cairo, which was established with the assistance of UNESCO.

F. Auxiliary Services to Industry and Agriculture

Since 1962 the ILO has placed a team of three experts at the disposal of the Government of Madagascar to advise on all long and short term problems in the field of co-operation. The team leader, who acts as general adviser to the Government on co-operation, has contributed to the elaboration of co-operative legislation and to the adoption of a credit policy favourable to co-operatives. Another expert, concerned mainly with the administration of co-operatives, has made a complete survey of problems in this field and has developed an accounting system adapted to local conditions. He has assisted in the reorganization of a large number of co-operatives and in the training of co-operative administrators and accountants. The third member of the team has developed co-operative training at all levels, placing particular emphasis on the use of audio-visual aids.

The ILO team has effectively contributed to the vigorous expansion of the co-operative movement on which the Government has decided to base a major part of its plans for the economic and social development of the country.

As in previous years, a number of seminars and training courses in labour inspection and administration have been organized by ILO. Thus, with the co-operation of the French Government and of the Institute for Advanced Overseas Studies, the fourth course for labour inspection staff from French-speaking countries was initiated in October 1963 with 22 participants from the following countries Burundi, Cameroun, Central African Republic, Chad, Congo (Brazzaville), Congo (Leopoldville), Ethiopia, Gabon, Guinea, Madagascar, Mali and Niger. This course, like the previous ones, comprises both theoretical and practical training. A number of participants, who have obtained satisfactory results in the ILO course, continue their training at the Institute for Advanced Overseas Studies and, in the year 1963-64, fifteen students at the Institute had participated in the ILO courses.

By the end of the present school year, 85 officials from French-speaking African countries will have received a thorough training in the courses organized by the ILO.

In English-speaking African countries, the ILO has organized a series of five regional training courses in labour administration in response to requests from the Governments of Kenya, Tanganyika, Uganda and Zanzibar. The courses are of approximately one month and are designed to supplement existing training facilities and to provide local administrative labour personnel with accelerated training in the basic elements of labour administration. The programme covers labour administration, including elements of international labour standards, the organization and operation of international labour departments, the implementation and enforcement of national labour legislation including the theory and practice of labour inspection and finally, the functions of labour offices in industrial relations, including wage administration.

Two ILO experts organize courses and teach in them, but the labour departments of the host countries in East Africa provide a substantial contribution to the teaching through their senior staff. Local educational institutions provide facilities for residential tuition and trainees from abroad receive ILO fellowships.

The first course of the series was held in August 1963 at the Royal College, Nairobi, Kenya, with the participation of 24 officials from Kenya, Mauritius, Northern Rhodesia, Nyasaland, Swaziland, Tanganyika, Uganda, and Zanzibar. Twenty-two participants from Bechuanaland, Kenya, Mauritius, Northern Rhodesia, Nyasaland, Tanganyika, Uganda and Zanzibar attended the second course, which was held at the Kenya Institute of Administration, Nairobi, in October 1963. The third course is scheduled for November and December 1963 at the same place, and negotiations are in course for the fourth course.

Vocational training still accounts for a high proportion of ILO assistance. The vocational training of rural craftsmen in the Chad is one of a number of projects in operation. As a result of an ILO planning mission in 1961, two expert instructors in wood and metal work were assigned to the Chad at the end of 1962, with the object of training rural craftsmen in the skills required to meet the needs of the rural population of the southern part of the country. The craftsmen will receive basic training in groups at various centres, followed by further training in the villages which the experts will visit with a workshop truck. Up to the present, the experts have been engaged in establishing the workshops, building residential accommodation at the first centre, recruiting trainees and preparing the training programme for the first centre.

FAO has contributed to establishing or strengthening auxiliary services to agriculture in a wide variety of fields. In Ghana, an expert is assisting in the establishment of a forest products research laboratory and is advising on the need for field stations and other facilities for applied research. In Ethiopia, an FAO livestock and meat-marketing expert has been assigned to assist in the organization of export machinery and in the improvement of marketing methods, inspection procedures and storage facilities for livestock and live stock products. The main result of this project has been the formulation of a marketing improvement programme incorporating a Livestock and Meat Marketing Board, the provision of extension and training facilities and the closer co-ordination of all activities relating to the livestock industry. In Senegal a food technologist has been appointed to advise on the development of protein rich

food products using locally produced foods such as millet, peanut flour and fish flour. In the Sudan, an expert has advised the Agricultural Bank on procedures, accounting books and forms for cotton storage operations and on the simplification of the Bank's statistical services. In Zanzibar, an expert requested by the Government has assisted in setting up an agricultural credit institution, the Zanzibar Development Bank.

The World Meteorological Organization has continued to provide assistance to governments in the development of meteorological services, giving particular emphasis to training local personnel. Thus a WMO expert has advised the Governments of Rwanda and of Burundi on the establishment of autonomous meteorological services. The expert has also organized at Usumbura, Burundi, a training course for students from both countries; the course has been attended by a total of twelve students, six from each country. In addition, six fellowships for study abroad have been awarded. Another expert has been sent to Guinea to assist in the establishment of a network of observation stations to take high-altitude meteorological readings by means of electronic devices. Two observation stations are already working. The expert has made a particular effort to train personnel in the technique of taking radio soundings; 17 students were trained in 1963 and four fellowships for study abroad were awarded.

In Tunisia, the WMO training mission expanded its work in 1963; both Tunisian and non-Tunisian students now attend the courses at the meteorological training centre.

Experts have been assigned to Nigeria and Morocco in order to organize the training of meteorological observers and technical assistants. In Kenya, an expert under the general supervision of the Director of the Royal College, Nairobi, and with the co-operation of the Science Faculty, has organized post-graduate courses in meteorology and has assisted in preparing the curriculum and establishing the necessary laboratories. The expert has now started lecturing in meteorology to English-speaking African university students.

The following African countries also benefitted under the WMO fellowship programme in 1963: Burundi, Cameroun, Central African Republic, Congo (Brazzaville), Ethiopia, Federation of Rhodesia and Nyasaland, Guinea, Ivory Coast, Libya, Madagascar, Morocco, Rwanda, Senegal, Togo, Tunisia and the United Arab Republic.

G. Public Administration

UNTA projects in the field of public administration are being developed in Africa, as elsewhere, in accordance with the requests of governments. To supplement country projects and to comply with expressions of interest from many countries, regional projects are also being developed to provide assistance to countries having similar problems in public administration. There is a trend towards the creation of institutions or the adaptation of existing ones to provide permanent sources of training adapted to the specific needs of the countries concerned and, at the same time, to offer consultative services to government departments. The regional approach to common problems in public administration has proved to be useful in the training of senior officials of developing countries and in offering an opportunity for an exchange of views and experience.

A total of five regional advisers in the fields of personnel administration, local government, fiscal administration and customs have been attached to the Economic Commission for Africa. They form a division for public administration and are ready to give assistance to member governments in planning long-term programmes in the public administration field.

The fifth session of the Economic Commission for Africa requested that a plan for regional and sub-regional support of national efforts to improve public administration and to develop training activities in this field be submitted at its next session. Accordingly, the United Nations, in consultation with ECA, convened a small working party of technicians and experts from bilateral and multilateral agencies to devise preliminary plans for an initial series of surveys, to help ECA regional advisers identify possible sub-regional approaches to training problems and to advise on survey methodology and on the resources available for surveys and

training programmes in the sub-region. The Working Party reached the following conclusions: (a) The Economic Commission for Africa should co-ordinate sub-regional studies which should include compilation of data on civil service systems, training needs and programmes for three major levels of personnel in three specific categories; (b) a sub-regional approach to the solution of problems inherent in personnel administration and in the training of civil servants is only one of other equally important approaches such as national personnel systems and training programmes and the training of civil servants in public administration by means of fellowships for study abroad.

A number of advisory missions have been provided by the United Nations at the request of governments. Thus, at the request of the Governments of Gambia and Senegal, a four man team was assembled to gather economic and political data on which decisions can be taken as to the form which relationships between the two Governments should take. The team, composed of experts in the field of public administration, constitutional law, economics and fiscal and financial administration, started their visit to the two countries in October 1963. A short-term mission with the participation of experts from ILO and UNESCO was also sent to the Niger Republic in response to a Government request to the United Nations Special Fund for assistance in establishing a school for medium level training in public administration.

In Morocco, an expert has assisted the Government in reorganizing the Ministry of the Interior. The reorganization plan, jointly prepared by the Ministry of the Interior, Ministry of Finance and "Sécrétariat Général" of the Government, includes provision for the creation of an improved career service with co-ordinated pay-scales and classification of posts. The reorganization plan also clarifies the role of provincial governors as co-ordinators of all regional administrative activities.

Most study tours and training programmes are now administered by the Economic Commission for Africa. United Nations Headquarters, however, has been responsible for arranging for a group of senior African Officials from Ministries of Local Government to visit India and Yugoslavia.

at the invitation of the governments of these two countries. A total of nine participants have been nominated by the Governments of Ethiopia, Liberia, Nigeria, Nyasaland, Somalia, Sudan, Tanganyika, Uganda and the United Arab Republic. The study tour is designed to enable the participants to learn, at first hand, about Indian and Yugoslav experience in the decentralization of development functions to local authorities.

Training programmes administered from United Nations Headquarters include the Training Programme in African Development Financing for African officials and the Foreign Service Officers Training Programme. The former is a continuation of earlier United Nations programmes devoted to the training of African economists, but while these were devoted to economic development in general, the training programme in development financing is designed to acquaint participants with the structure and functioning of public and private agencies and institutions engaged in the provision of financial assistance or development capital to emerging countries. Nineteen African Government officials are participating in the five-month programme which started at United Nations Headquarters in September 1963. Three months will be spent in New York and one month in Europe. The programme includes lectures, held both by regular tutors and by specialists within and outside the United Nations, supplemented by reading and by group discussions on the theory and practice of development financing. Visits are also arranged to financial institutions and meetings are held with officials responsible for foreign investments, loans and aid.

The second United Nations Training Programme for Foreign Service Officers from newly independent countries started in Geneva (Switzerland) in May 1963 with 21 participants. The main purpose of the programme is to provide senior foreign service officers from developing countries with an opportunity to study the practical aspects of foreign service administration and the techniques and skills of diplomatic intercourse. The course has a duration of seven months, five and a half of which are spent at Geneva and the remainder at United Nations Headquarters. The Geneva phase is organized in consultation with the "Institut des Hautes Etudes Internationales" (Institute for Advanced International Studies) and involves

both academic study and first hand observation of the practical work of diplomacy. The New York phase is devoted to introducing participants to the practical aspects of the work of the United Nations General Assembly. In 1963, the programme also included visits to the headquarters of various international organizations and to the Ministries of Foreign Affairs of the Netherlands and Poland, as well as to the Swiss Federal Political Department.

In addition to organizing training programmes and providing advisory services in public administration, the United Nations has filled requests for personnel to undertake operational or executive functions as contemplated in General Assembly Resolution 1256 (XIII). During 1963, a total of 41 posts were established in East Africa (East African Common Services Organization) and in Burundi, Ethiopia, Gambia, Ghana, Libya, Niger, Nigeria, Rwanda, Somalia, Sudan, Tanganyika, Togo and Tunisia. The posts cover personnel administration, treasury administration, judicial administration, police administration, stores administration, public finance, economic development, statistics, public works, geodetic survey, trade promotion, hydrology, land use and water supplies, agriculture, animal husbandry, reafforestation and forest management, banking, national pensions, industrial training, malaria eradication, telecommunications, civil aviation and meteorology. Six new appointments were made by the end of September 1963 and others were expected before the end of the year.

A number of countries have sought technical aid from the ILO to deal with shortages of skilled clerical workers. As an example, in 1962, an international team including an expert and two female instructors were sent by ILO to Morocco at the request of the Government to assist in the establishment of a Centre for the accelerated training of clerks and accountants at Rabat and eventually in other towns. This first course organized by the ILO team has already produced significant results. Thirty-four students, divided equally between the clerical and the accountancy sections, were selected from 450 persons who had requested admission to the course. Thirty-three students sat for the final examination and only one failed to pass. A second course is now being organized and it is

hoped that it will be possible to accept a greater number of participants since the Ministry of Labour and Social Affairs has increased the number of scholarships from 20 to 40 and further scholarships have been promised by other Ministries.

H. Public Finance and Financial Institutions

Technical assistance in this field was provided by the United Nations to the following African countries during the period under survey: Gabon, Ghana, Morocco, Niger, Rwanda, Somalia, Sudan and Togo. Advisory services provided by these experts covered the establishment of financial institutions and the promotion of savings and investment activities. Ghana and Somalia received expert advice in the organization and utilization of balance of payments statistics, and on foreign exchange management and the promotion of foreign trade. An expert assisted the Government of Niger to survey and advise on the organization of the credit system and institutions in that country. In Gabon, a survey of external finances was completed by an expert.

During the current year, the United Nations Training Programme for African Officials at Headquarters deals with problems of the financing of development projects. The Programme is being attended by nineteen fellows from Africa.

Another special training programme in this field was organized by the Banque de France, for the United Nations, to provide training in central banking policies and techniques to officials from French-speaking countries, chiefly in Africa.

A regional technical assistance adviser in budgeting was appointed during the period, and it is expected that his presence in the region should enhance the effectiveness of technical assistance services in this field. Expert missions, in budget, government accounting and treasury control, were sent to a number of countries including Burundi, Mali, Morocco, Rwanda, Senegal, Somalia and the United Arab Republic. Of special interest was the mission to Cameroun which dealt with the problem of consolidating the budget systems of the regions previously under United Kingdom and French administrations.

Apart from a number of individual fellowships in the field, a special training programme was organized for a group of Ghanian budget officials to study techniques of performance budgeting in the Philippines.

Continuing assistance was given to the Government of Rwanda and Burundi in the development of their tax structures and administration. The long-term land tax valuation project in Ghana will be completed at the end of the calendar year. The success of this project, and of a similar one in Jamaica, has led to requests from other governments for similar assistance, and the preparation of a manual on this subject for use generally in the establishment and implementation of more effective land taxation is under consideration. A comprehensive mission in taxation, budgeting and finance to Algeria is currently being formulated on the basis of a brief preliminary survey mission just completed.

A regional technical assistance adviser in taxation has been appointed. His first assignments were related to the problems of tax co-ordination in federations, on which he is advising both the Governments of Kenya, Tanganyika and Uganda in East Africa and the Governments of Gambia and Senegal in West Africa.

I. Health

At the Fifteenth World Health Assembly in 1962 emphasis was placed on initiating an accelerated programme of assistance to developing countries, particularly in Africa, which would concentrate on national health planning and on the education and training of professional and auxiliary staff to strengthen national health services. The Assembly also considered that the creation of a network of basic health services must be regarded as an essential pre-investment operation without which other development would be slow and hazardous. Much of the assistance provided by WHO during the past year has been within this framework.

A public health administration project has been in existence in Togo since 1960. In 1962, the creation by the Government of a Planning Secretariat to elaborate a comprehensive plan of social and economic development enabled the WHO public health adviser to give guidance in preparing a five-year public health plan forming an integral part of it. This plan provides for (1) full co-operation between governmental, non-governmental, international and bilateral agencies concerned with the development of health services; (2) the re-organization of health services including the co-ordination of health activities at all administrative levels; (3) the training of professional and auxiliary health personnel - a well-staffed health centre has already been established in this connexion - and (4) the establishment of a pilot area to study the problems of integrating basic health services supporting malaria eradication activities into the general public health services of the country. The experience gained from the pilot area will be used for the eventual integration of other specific disease control programmes into the national health services.

The technical assistance provided through this project has assisted the Government in taking into account the important role of health when planning the improvement of social and economic conditions. The experience obtained and the facilities provided by the project could well serve for the training of candidates at the African Development and Planning Institute at Dakar.

The problem of training national staff has become urgent in emerging countries, many of which need assistance with training to maintain and develop their health services. In order to provide it in the most expeditious way, WHO has responded to Government requests by sending consultants to a number of countries to undertake fact-finding surveys. The conclusions reached then provide guidance for a systematic development of personnel training and training facilities.

In Burundi, for example, a successful short-term mission was undertaken by a WHO nurse educator who reviewed the existing system of nurse education and made recommendations for its future development. The expert recommended the creation of two levels of nursing staff, one to be based on a three-year course leading to the diplôme d'état, while the other, comprising nursing auxiliaries, would receive two years training. In the last year of training, at both levels, the students would specialize in general nursing, midwifery or public health.

The implementation of the programme recommended was assisted by the subsequent recruitment of a WHO public health nurse educator on a long-term assignment. With the co-operation of the authorities, she was able to select an existing dispensary and a defined area to serve as a field for instruction in the principles of public health nursing. The dispensary was formally inaugurated as a health centre in April 1963.

The project is of particular interest because the training of public health nurses was a new concept in Burundi, and great interest has been aroused among students in fields entirely new to them, such as health education.

Morocco, after obtaining independence, faced a critical situation when health personnel was depleted by the departure of foreign professional staff. Plans had to be made for the training of large numbers of auxiliary health workers to staff the health centres, since the services of the remaining professional staff were required for essential supervisory duties, and auxiliary staff had previously been recruited as required and had not been given any formal training.

With the assistance of WHO and UNICEF, the Government established a training programme for the whole country which emphasized preventive medicine and health education as well as the essential elements of nursing, and made use of the local health services for giving students practical experience. Full time instructors, one for each group of ten students, conducted nine-month courses, later extended to a full year, in the central towns of the provinces from which the students came. Training during the first part of the courses was the same for all students. During the second part, however, some groups were trained particularly for work in hospitals and others for work in rural health centres. The original plans envisaged the training of approximately 200 auxiliaries in fourteen training centres. The number of trainees has since been increased, and twenty centres now accept some 600 students every year.

A WHO consultant assisted in elaborating this programme and a WHO nurse and sanitarian have been working in Morocco since 1960, primarily as advisers and teachers of the instructors in the various centres. Other WHO experts in the country have participated in the training programme within the scope of their specialities. In addition, fellowships have been granted for the advanced training abroad of key national health personnel. The contribution of UNICEF has consisted in the supply of teaching equipment and transport and in the provision of salary supplements for national instructors, as well as stipends for local trainees.

This programme, which is now largely meeting the needs of the country for auxiliary health workers, has attracted considerable interest in other countries where similar programmes are under consideration.

The paramount importance of advance planning by Government, and the important principle of training successive groups of different types of health auxiliaries according to the priority needs of each developing country, is exemplified by the history of the Health Training Institute at Benghazi, Libya.

Courses for health assistants and sanitarians were started in 1957 with the object of training those two categories of health staff for work in rural health centres and of providing in-service training for other auxiliary health personnel already employed by the Government. The project was given the title of "Health Training Institute" when courses for laboratory assistants and male nurses were added in 1960.

The three-year course for health assistants emphasized preventive medicine and was designed to prepare trainees to undertake health education and environmental sanitation and also to undertake both simple diagnoses and the treatment of diseases, as well as simple dispensing of drugs. The first twenty-four health assistants graduated in 1960 and are now mostly employed in rural dispensaries where their work is supervised by professional medical personnel.

The one year course for sanitarians was designed to enable them to work in rural areas under supervision. By January 1962, seventy-six graduates were working in the health services. A fifteen-month training course for laboratory assistants was initiated in 1960 and was followed by two others. Up to the present, thirty-one laboratory assistants have been assigned to the central laboratories or to the diagnostic hospital laboratories in the provinces. A three-year male nursing course began in 1963 with an enrolment of nineteen students.

WHO staff at present assigned to this project consists of a male nurse tutor and a laboratory technician. A medical officer and a health education instructor assigned as national counterparts participate in the training programme, together with a laboratory assistant.

The control and eradication of malaria and other communicable diseases, which are serious health problems, have also continued to receive high priority. Thus, in 1961, the World Health Organization initiated a programme for the evaluation and testing of insecticides of potential value in malaria eradication and other disease control operations. The chemical industry submits its products to the Organization

and these are evaluated at seven collaborating laboratories, including one in Tanganyika and one in Nigeria. Two products, malathion and dichlorvos, which have passed successfully through all phases of evaluation, are now being given large-scale field trials in Uganda and Nigeria to judge their capacity to interrupt the transmission of malaria.

Field trials of malathion have been carried out since November 1962, in the Masaka district of Uganda by a WHO team comprising a malariologist, an entomologist and a technician. Three spraying cycles had been completed by the end of 1963. Field trials of dichlorvos, a fumigant insecticide, were started in March 1963 in Katsina province, Nigeria, by a WHO team consisting of a malariologist, an entomologist, a sanitarian and a technician.

Although the results of these trials, if they are successful, will be useful wherever malaria eradication programmes are being undertaken, they will be of particular value for programmes in the savannah areas of West Africa where it has not yet been possible to overcome, by means of the residual insecticides now used, the technical obstacles to the interruption of malaria transmission.

In the case of another communicable disease, onchocerciasis, a WHO consultant in the Sudan made a survey in 1959 which showed that the disease was of great importance in that country in view of the high rate of eye complications which affect working capacity or even produce total blindness. The survey also showed that several districts in Bahr-el-Ghazal province and one district in Equatoria province were heavily infected and that the disease was more prevalent in rural areas than in towns.

In March 1963 a WHO entomologist was appointed to undertake an entomological survey and to train national personnel for a country-wide control programme. Four teams, composed of one technician and two fly recorders, have been attached to the project by the Government, and Wau, in Bahr-el-Ghazal province, has been selected as headquarters for the first year. Twenty sites on fourteen rivers have been surveyed so far.

In Basutoland, on the other hand, it is tuberculosis which is the serious public health problem. This was confirmed by a prevalence survey made in 1957 by a WHO tuberculosis survey team. As a result, it was decided to develop a national control programme with the assistance of WHO and UNICEF. The exploratory phase of the programme was initiated in March 1962 with the object of developing effective tuberculosis control methods in a pilot area which would be applicable to the whole country, to train a cadre of national personnel in tuberculosis control methods and to provide tuberculosis control services in the pilot area. Up to the present, the WHO team of six assigned to the project has mapped the pilot area, taken a census, undertaken examination and BCG vaccination of certain groups of the population and given chemotherapy treatment on a domiciliary basis. On completion of this phase of the project, tuberculosis control activities will be gradually expanded to cover other parts of the country with the aim of ultimately developing a nation-wide programme based on modern concepts.

The ILO has initiated several occupational health projects in Africa. In Ghana, for instance, the Government has requested assistance under the ILO Regular Programme in the establishment of an industrial health centre in the gold-mining area. The aims of the project are to establish an industrial health scheme for the detection, enumeration and compensation of pneumoconiosis in the Ghanaian gold-mining industry; to make recommendations for a scheme of pre-employment and periodic medical examinations for gold-miners to reduce the incidence of pneumoconiosis and to evolve a dust control and a workmen's compensation programme.

The project is basically conceived as a pilot operation to demonstrate the benefits of modern medical control in a limited industrial area. At the present time, all three experts foreseen (a radiographer, a pneumoconiosis expert and an administrator) are in post. Two Ghanaian health counterparts (an administrator and a medical doctor) are receiving further training under ILO fellowships in the United Kingdom.

X-ray equipment supplied by ILO has been installed and it is expected that the industrial health centre will become fully operational by the end of 1963.

This project is of exceptional interest because schemes affecting the physical protection of the working population are usually accorded low priorities in economic development plans. It is expected that the experience and information gained during implementation of this project may be used to extend industrial health control schemes to other types of mining and later to other industries thus assisting efforts to raise the level of public health in general. Eventually it is hoped that the project will lead to the establishment of a social security scheme.

J. Education

Educational planning teams, under the UNESCO Emergency Programme of Financial Aid to Member States and Associate Members in Africa, carried out missions to Ivory Coast, Liberia, Madagascar and Northern Rhodesia. These groups consisted of specialists in educational administration, in the economics of education, and in educational statistics. They all benefitted from the assistance of FAO experts in agricultural education either assigned to the group for this specific purpose or already at work in the country.

All groups submitted reports to the respective Governments dealing with the present educational situation in the context of overall economic and social development, identifying problems to be studied for the purpose of educational planning, containing data, including enrolment statistics and projections in view of manpower requirements, making pedagogical recommendations, as well as giving advice concerning the establishment of the organs and services required for educational planning, and giving budget estimates of the cost of educational plans. All reports made clear, however, that it was for the Governments, on the basis of such data and advice, to draw up, implement and review their educational plans.

In Rwanda and Burundi, ~~two educational planning teams followed up~~ the activities of the group which had visited the two countries in 1962. Both groups were able to provide the Governments with considerably more detailed and comprehensive recommendations than those developed in the course of the first mission.

At the request of the Government of the Sudan, UNESCO organized an educational investment programming mission which consisted of three experts in educational administration, educational planning and technical education. It was intended to include an economist who, unfortunately, was unable to join.

The mission set out to establish priority requirements in educational fields within the Government's ten-year plan of economic and social development, to examine the growth of the national economy and the need resulting for improving and expanding educational facilities at all levels, and to make recommendations on the investment requirements of educational development.

The mission reached four main conclusions. These were that the present educational establishment in the Sudan is inadequate to meet the needs of its expanding economy, that the educational development plan proposed by the Government is fairly modest and by no means extravagant in its aims, that the plan needs to be supplemented, especially in the fields of teacher training, intermediate, technical and adult education, and that national resources will not be adequate to meet the full cost of the plan.

A UNESCO expert in low-cost school buildings has already achieved many economies for this Government and, during the period in question, has designed two new types of laboratory which it is hoped will be accepted by the Government and become the standard type throughout the country.

The planning mission laid particular stress on the importance of school building and its recommendations are in line with the general trend of building in the Sudan which is strengthened by the new UNESCO School Construction Bureau for Africa in Khartoum.

The Government of Algeria intends to draw up a plan for the development of its national education system within the economic and social development programme of the country. With this in mind, the Government requested UNESCO to provide the services of a number of experts in various educational fields, notably in the fields of educational planning and administration.

These experts, the majority of whom have already begun their assignments, will cooperate with the authorities in making a survey of the national educational system, including primary, secondary, technical and higher education as well as adult education, in helping to formulate the objectives of educational development, in the establishment of the services to be entrusted with educational planning, and in drawing up the plan for educational development, with these services, as soon as they begin operation.

Closely related to this project is UNESCO assistance to Algeria within the framework of the African Emergency Teachers Programme. This includes the provision of some 60 teachers under UNESCOPAS arrangements to Algerian secondary and technical schools.

A UNESCO adviser in Educational Statistics for Africa has been appointed for 1963-64. The expert, whose duty station is Dakar, has started his work. Besides activities in Senegal, with short-term missions to Guinea and Mali, he will visit a number of other African countries in the near future, in West Africa as well as in East Africa. He has further attended the Conference of African Statisticians, recently held at Addis Ababa. The main object is to advise the Governments concerned about the organization, staffing and operation of national statistical services relating to the fields of competence of UNESCO. He will also

supplement and consolidate the work of other UNESCO missions to various African countries in the same field and fill gaps where no such missions have yet been sent. Another important task for the expert is to advise Governments on the improvement and utilization of statistics for the purpose of educational planning and in this connexion to cooperate, as far as possible, with educational planning teams sent by UNESCO to countries of the region.

The Regional Centre for the Advanced Training of Educational Personnel in the Arab States was established in Beirut in implementation of an agreement between UNESCO and the Government of Lebanon. The aim of the centre is to train senior educational personnel required for the preparation and execution of national plans for the development of education within the framework of overall economic and social development programmes. The main fields of study are educational planning and administration, the economics of education, curriculum development and educational statistics.

The principal functions of the Centre are to provide training for young Arab educators who will subsequently fill important posts in educational planning, to provide in-service training for senior educational personnel and to promote studies and research bearing on educational planning and administration.

In carrying out its training functions, the Centre organizes one seven-month course each year for young educators and one six-week seminar-type summer course for senior personnel. So far, two long courses and one summer course have been organized and the third long course is now going on. An average of 50 trainees attend the long course and an average of 25 trainees take part in the summer course.

All Arab Member States of UNESCO, including six in Africa (Algeria, Libya, Morocco, Sudan, Tunisia and the United Arab Republic) are entitled to participate in the activities of the Centre. UNESCO contributes to the cost of fellowships and to the salaries of the Director, Deputy Director and four international lecturers. The Lebanese Government contributes to the salaries of these as well as the salaries of local

staff, and provides the building, furniture and services. While the agreement between UNESCO and the Lebanese Government is due to expire in 1966 there is a possibility that it may be extended until 1972.

The regional project for the training of primary school teachers, initiated in 1961-1962, was continued in 1963. Two courses of nine months each were held, one at Makerere College, the other at Bangui. The Makerere course began in October 1962 with 25 fellows from 12 English-speaking African countries. The Bangui course for French-speaking teachers was attended by 21 fellows from nine African countries. All are destined to return to their home countries and to help to train primary school teachers. In both centres, UNESCO supplies the services of three lecturers. A third course is beginning at Makerere College and a second at Bangui in October 1963.

In Algeria, the problem of finding a sufficient number of primary school teachers for the 1.2 million children enrolled at the beginning of the school year 1962-1963 was very considerable; approximately 8,000 new teachers had to be appointed, many of whom had received neither pedagogical training nor adequate general schooling to enable them to carry out their functions. The Government accordingly prepared an emergency teacher training programme with the help of experts provided by UNESCO under the Expanded Programme of Technical Assistance, with help from UNICEF for supplies, materials and stipends, amounting to a total of approximately \$175,000. A number of training courses are being organized in the course of 1963, and it is estimated that the number of participants will be approximately 2,000.

In this connexion, mention should be made of the establishment of a pedagogical institute, also with the help of the UNESCO expert in the field of teacher training. The institute will comprise a documentation centre; but one of its main aims is to prepare lesson notes and other materials for use by primary school teachers. The first draft of a manual for teachers containing a large number of practical suggestions was published by the institute in June 1963.

A meeting of experts on general secondary education in the Arab States was organized in Tunis from 23 August to 1 September 1962 to review the present problems and needs of Arab States in the field of general secondary education and to prepare a plan of action and research for further development and improvement. The meeting was attended by experts from eleven Arabic-speaking countries including five African ones: Libya, Morocco, Sudan, Tunisia and the United Arab Republic.

Two commissions were established, one to deal with all questions relating to teachers and teacher training and the other to discuss curricula, textbooks and teaching methods. The meeting made a number of recommendations regarding the objectives of general secondary education, planning and organization, curricula and teaching methods, the material basis required for education and the pre-service and in-service training of teachers.

The meeting also put forward a number of suggestions and proposals for international and regional cooperation in the Arab States. These include (a) the establishment, with the help of the United Nations Special Fund, of national institutes for the training of urgently needed secondary school teachers; (b) the setting up of a regional centre for the development and testing of teaching aids including textbooks, science laboratory equipment and audio-visual aids designed to improve teaching in secondary schools; (c) convening a meeting of Arab architects and educators to discuss the problem of school buildings and draw up a plan of research likely to assist the Arab countries in constructing suitable low-cost school buildings.

Eight African countries are operating adult education and adult literacy programmes with UNESCO and under EPTA. A UNESCO expert in the Ivory Coast is studying the conditions of adaptation of rural young people who are immigrating into urban areas. An expert in Uganda is helping in the teaching of the English language to women of different tribes, who otherwise would not be able to communicate among themselves. In addition to the above two special adult education programmes, a

number of countries are undertaking action on a national basis for a broader adult education programme. Cameroon first utilized two UNESCO experts whose enquiries led to the establishment of a sound literacy programme and the training of adult education and literacy instructors. The extension of the work necessitated the recruitment of a third expert on reading materials for adults. The Government of Gabon with the help of one expert has led adult education programmes through radio and recently initiated an adult literacy campaign. The Government of Guinea has started its national campaign against illiteracy with the help of one UNESCO expert. In Madagascar, adult education is considered to be linked to primary education, which is now being reorganized from the point of view of rural adaptation. Two experts are attached to this mission, one for the training of teachers, and the other for the production of reading materials. Niger, which requested the services of one expert in literacy, has decided, after a successful experience within a limited area, to extend the work on a national basis. An expert has also served in Senegal, assisting in the adaptation of the "animation" movement for women.

All of these national activities may be reinforced in the light of discussions on adult literacy problems, which are the purpose of a Regional Conference on the Planning and Organization of Literacy Programmes in Africa, to be held in 1964. The existing African literacy and adult education programmes are also the prelude to an eventual programme of international action towards universal literacy within the framework of the United Nations Development Decade.

A co-ordinated extension of these enterprises is possible, thanks to the activities of the "International Committee for the Advancement of Adult Education" which has been functioning since 1962 and which, beginning in 1964, will have the support of an "International Committee of Experts on Literacy".

A seminar on Basic Science Teaching in African Universities was held at Rabat at the end of 1962 to provide an opportunity for discussions and for an exchange of experience in the field of teaching

mathematics, physics, chemistry, biology and geology at the universities of the different participating countries. University teaching staff from 19 African countries (French and English speaking and Arab States) participated in the Seminar. An international team of five experts also attended.

The most important conclusions and recommendations of this Seminar were that meetings devoted to teaching each specific science should be organized periodically in Africa, that national and regional scientific societies should be formed as soon as possible, that the relevant authorities in African States should hasten the setting up of national bodies to organize and co-ordinate scientific research, that UNESCO should give support to the protection of ecological stations and of animal or plant species that are dying out, that the Africanization of science curricula (particularly in biology and geology) is urgently needed, that it is essential that universities and secondary schools collaborate closely in the preparation of modern curricula for secondary schools and in the training of science teachers, that university teachers must engage in research, which is an essential condition for their development, that seminars and meetings for the improvement of science teachers' training be organized, that the orientation of research should be decided in relation to African needs, while preserving the universities' freedom in this field, and that it is essential to ensure the continuity of research, which is closely bound up with the stability of university staff. Suitable conditions must be found to encourage national and expatriate specialists to remain as long as possible at the universities.

Under the Technical Assistance Regional Programme, UNESCO sent a Seismological and Geophysical Survey Mission to Africa in April and May, 1963. This was composed of a seismologist, a seismo-geologist, an expert in geomagnetism, and an earthquake engineer. It visited the United Arab Republic, Ethiopia, Madagascar, Kenya, Tanganyika, Uganda, Congo (Leopoldville), Congo (Brazzaville) and the Central African Republic. During the visit of the mission to the Congo (Leopoldville), a regional seminar on Seismology and Geophysics was held at the "Institut de

Recherches Scientifiques en Afrique Centrale ("IRSAC" in Lwiro (Kivu Province)). This seminar was attended by leading geophysicists from the countries visited by the mission. The mission's report is to be published in the form of a Monograph by the International Union of Geodesy and Geophysics.

UNESCO placed two experts at the disposal of the Nigerian Institute of Social and Economic Research, of the University of Ibadan, to undertake a survey on social and economic factors affecting agricultural productivity. The main purpose was to find the reasons for the low level of agricultural productivity in Nigeria through a study of the attitude of farmers towards measures intended to develop productivity and marketing. It was also to determine to what extent producers are responding to changes in producer prices, and the factors which induce farmers to change (or prevent them from changing) from subsistence to cash crop farming. Consideration of land tenure arrangements was also included.

Case studies were made to investigate the situation and problems in the main agricultural production areas. They cover rubber in the Benin area, cacao and rice subsistence farming in the Savane, and the zone of cacao production, all in Western Nigeria; as well as the rice producing zone (Abakaliki) and the palm oil producing zone in Eastern Nigeria.

Following negotiations in 1962 between the United Nations Bureau of Social Affairs, the Economic Commission for Africa and UNESCO, the Organization contributed case studies on the integration of social development to a regional meeting on Social Aspects of Development Programming in Africa, held in Addis Ababa in October 1963. Papers were submitted on case studies in Niger, Nigeria and Tunisia on research dealing with the basic social and psychological problems which influence overall development planning in Africa, and on the social factors of educational planning.

A Middle East Regional Conference on Organization and Planning of Scientific and Technological Research was organized in Beirut in May and June by the Middle East Science Co-operation Office (Cairo) in co-

operation with the National Scientific Research Council established in September 1962 by the Government of Lebanon with the advice and assistance of UNESCO. It was attended by 36 delegates from twelve Member States in the region, including Algeria, Morocco, Sudan, Tunisia and the United Arab Republic. After consideration of reports on national scientific development outlining the trends of scientific research in the fields of hydrology, prospection of mineral resources and oceanography, the conference unanimously adopted a number of resolutions concerning the organization of scientific research, the planning of national scientific development, specific problems of scientific policy and the role of international co-operation in respect of these matters. The conference recommended the establishment of permanent contacts between research organizations in the different countries of the region, through the Middle East Science Co-operation Office, with UNESCO through the organization of similar conferences every two or three years. The conference also recommended that UNESCO should assist member states who request it in the identification of national problems, in the assessment and analysis of their natural resources and in planning their most efficient utilization; and that they observe certain priorities in the allocation of assistance to scientific research.

A meeting of experts was convened in Tunis in April 1963, on the Development of News Agencies in Africa, following a recommendation of the 1962 Meeting of Experts on the Development of Information Media in Africa. It was attended by experts from 29 African countries, including a number of directors of national news agencies, as well as observers from world-wide news agencies and international organizations interested. Altogether, some 75 top-ranking experts focussed attention on the problems of news agency development in Africa and unanimously adopted a 15,000 word report which was subsequently communicated to Member States^{1/} and disseminated widely to workers in the information field. A salient result of the meeting was the establishment of a Union of African News

^{1/} UNESCO/MC/48

Agencies. The Union is a professional association designed to link the news agencies already existing in some 20 African countries and to help to establish them in others, with a view to increasing the flow of news within the region and between Africa and the rest of the world. The Union's Constituent Assembly elected a provisional Executive Board comprising members from Algeria (Chairman), Madagascar, Nigeria, Senegal and Tanganyika, and decided to hold its first General Assembly during the second half of 1963.

An expert has undertaken a mission to develop school broadcasting in Sierra Leone and to establish a number of programme series in the fields of English, French, Health Education and Current Affairs. With the aid of equipment provided under technical assistance, a special studio and recording room for school broadcasting was set up, and receivers were distributed to schools. At the same time, a fellowship was granted to a producer from Sierra Leone, who returned several months before the expert left the country. As a result of the training received abroad and under supervision by the expert, the fellow is now directing the school broadcasting service, which continues actively and is expanding. The expert also co-operated with the authorities in the development of radio programmes designed for the in-service training of teachers, in the broader use of radio for adult education, and in the planning of educational television.

After a preliminary survey in 1962, a long-term mission was requested by the Government of Somalia to implement recommendations concerning information facilities and organization.

During the first year, the expert undertook extensive planning as well as a large number of advisory activities on the day-to-day operations of the Ministry of Information. He prepared an organizational and establishment plan for the Ministry and a detailed layout of various new and reorganized services. He also drafted and secured acceptance of a five-year plan and budget for the development of the Ministry and its expanding programme. The statutes for a national news agency were

drafted and the agency was launched. Substantial improvements have been made in the production of the official newspapers, and in-service training of the editorial staff was carried out. In the field of broadcasting, the expert introduced new feature programmes, and is now engaged in preparing plans for educational and school broadcasting. The extension of community listening facilities is planned. Other activities include the development of an audio-visual service, and some film production. The work of the expert is being co-ordinated with bilateral assistance through information and broadcasting equipment.

A training course in educational broadcasting in Uganda, with special reference to the production and reception of programmes serving adult education, particularly in rural areas, was organized in Kampala in November and December 1962, in co-operation with the Government. Radio programme producers and adult education specialists from 14 English-speaking African member states and territories participated in the course, which consisted of lectures, practical exercises in studio production and outside recording and visits to community reception centres. The subjects covered included programming for adult education, techniques of radio broadcasting, co-operation between broadcasters and educators, and audience relations. A similar course for French-speaking African countries was held in Bamako, Mali in November and December 1963.

The first regional centre for training librarians from French-speaking African countries started operations in November 1963 at the University of Dakar, Senegal, under the direction of a UNESCO library expert. The centre, established by an agreement between the Government of Senegal and UNESCO, will train students from eighteen African countries in modern techniques of librarianship. A number of fellowships have been awarded by UNESCO to enable students to attend the courses. The need for trained librarians in the region was stressed by the seminar on the Development of Libraries in Africa held at Enugu, Nigeria, in 1962. Though some training facilities exist for English-speaking Africa, there has hitherto been no school of librarianship for French-speaking Africa.

Students for the centre were drawn from Burundi, Cameroon, the Central African Republic, Chad, Congo (Brazzaville), Congo (Leopoldville), Dahomey, Gabon, Guinea, Ivory Coast, Madagascar, Mali, Mauritania, Niger, Rwanda, Togo and Upper Volta, as well as Senegal. The duration of the course each year will be eight months. Direction of the Centre will eventually be taken over by a Senegalese librarian who will be given an opportunity to study library education abroad.

K. Housing, physical planning and building

Aid in the fields of housing, physical planning and building continues to be an important element in the technical assistance programmes of the United Nations. Activities during 1963 in Africa included the assignment of a team of experts, consisting of an economist, a sociologist and a physical planner, to assist the Government of the Sudan in the preparation of a regional plan for the development of the Gezira region where the Government had instituted an irrigation scheme covering some 800,000 acres, and re-distributed land into plots. Problems arose when resettlement of the local population was undertaken without adequate planning. United Nations assistance was requested at the beginning of 1963 in the preparation of a regional plan of social development including the types of human settlements recommended (whether towns or villages); the location and size of such settlements, the distribution of community facilities and essential services, and the main lines of communication and power distribution. It is expected that further assistance will be requested following the team's recommendations.

Significant activities having a wide impact in the fields of housing, building and physical planning have also been undertaken in Ethiopia and Somalia in response to requests from their governments. In Somalia, action has been taken on the recommendations of a one-man preliminary survey mission, which had visited Mogadishu in 1961 to assess housing conditions with particular emphasis on the needs, methods and techniques of low-cost housing. The problems have been approached by first building a number of demonstration houses, to determine construction costs and assess the size and cost of homes acceptable to lower-income families are then to be organized to build a group of houses by self help methods and finally a suitable financing system is to be developed. With funds provided by the American Society of Friends, with funds and services furnished by the Government of Somalia, and with the technical assistance and equipment provided by the United Nations, fifty houses have been built and it has been possible to reduce construction costs for a typical urban home from

So.22,000 (about \$3,300) to So.5,000 (\$714). By applying self help methods it is believed that building costs could be further reduced to So.3,000 (\$450). The project is developing well, but further technical assistance seems to be needed in developing suitable building methods using pre-fabricated elements in re-inforced concrete for the assembly of cores of single dwelling units or for the basic structure of multi-storey dwellings. Negotiations are presently being conducted for external assistance in the development of this project.

The secretariat of the Economic Commission for Africa is responsible for a similar housing project which has been initiated in Addis Ababa with the financial assistance of the American Society of Friends and other voluntary organizations.

The experience gained in the Ethiopia and Somalia Pilot Housing Projects will be useful in carrying out similar pilot projects in Guinea and Togo which are now in the organizational stage. Further pilot projects have been proposed in Ghana, Kenya, Liberia and the United Arab Republic. Contributions have been given or pledged for all these projects by several member governments. The combined assistance from the recipient country, the United Nations and one or more Member Government constitutes an approach that allows a developing country to solve simultaneously a number of inter-related and urgent housing problems. This approach is expected to be more fully developed as more member governments become aware of General Assembly resolution 1508 (XV) and contribute to these pilot projects.

The need to provide training facilities for local staff in the housing and town planning field has not been neglected and training courses have been organized in several African countries. In Ghana, for instance, the United Nations assisted the Government to establish an Institute for Community Planning, now attached to Kwame Nkrumah University, with training courses for town planning assistants who would be expected to assist professional town planning officers in undertaking local projects. The Institute was designed to counteract the acute shortage of professionally trained town planners. The United Nations continued to assist this project in 1963 by providing the services of two instructors.

L. Community development

In the 1962 report, mention was made of the community development project in Western Nigeria, assisted by the United Nations, which is continuing and constitutes an example of a well-balanced and comprehensive community development effort. It is to be noted that there has been an increasing awareness of the relationship of community development to land settlement, since such schemes, whether originating in land reclamation, new land tenure policies, or policies directed towards de-nomadization, have become increasingly important in the development of the African continent. This is shown by the increase in the number and scope of projects such as those in Chad, Ghana, Madagascar, Mali, Rwanda, Sudan, Tanganyika and the United Arab Republic. Surveys presently being undertaken in Ethiopia, Ghana, Ivory Coast, Nigeria, Northern Rhodesia, Senegal, Somalia, Sudan, Tanganyika and Togo may well indicate the possibility and desirability of a further increase in the number and scope of such projects. United Nations work relating community development to land reform and land settlement is exemplified by two highly significant projects in Algeria and Sudan respectively.

In Sudan, the project involves the transfer of some 50,000 people in the Wadi Halfa area on the United Arab Republic border, whose lands will be inundated with the erection of the Aswan High Dam. Under the administration of the Wadi Halfa Resettlement Commission, they will be resettled on a large agricultural land irrigation project. Some 125,000 acres have been set aside for this purpose as part of a wider agricultural scheme covering 500,000 acres, the irrigation of which has been made possible by the erection of a dam on the Atbara River. The excellent soil offers the settlers the possibility of successfully establishing themselves in mixed farming on land units of 15 acres per family.

The first and most important contribution of the community development approach to the resettlement programme has been to change the attitude of the migrants towards the idea of leaving an area, where their forebears lived, and settling in an area unknown to them.

The second contribution, at this early stage in the project, has been to involve the population actively in the preparations for their re-settlement under the guidance of the Wadi Halfa Resettlement Commission. This will permit a well organized transfer, at the beginning of 1964, of the first 19,000 people. Community development will continue to play an important role in subsequent stages of the project and in the many problems of social education and organization involved in building a new community of 50,000 persons.

Another community development project of particular interest is the joint community development and land reform project recently started in Algeria, near Algiers. In this area the rural population depends upon wheat and grape cultivation and there is practically no industry and little handicraft. Serious erosion and deforestation, as well as the effects of war, have left their marks on the landscape and the population. The Algerian Government is preparing land reform legislation which will designate an area, within the wider area of the community development project, as a first pilot zone for the demonstration of the usefulness of a joint community development and land reform effort that will include the development of techniques for rural planning. Particular attention will be given to integration of traditional and modern methods of agriculture, and to training, within the project area, personnel needed for similar projects elsewhere in the country. The United Nations community development adviser in charge of the project arrived in March 1963. Two advisers in land reform, provided by FAO, will arrive shortly, while the FAO adviser in agricultural credit has already taken up his assignment.

It is felt that both the Sudanese and Algerian community development projects provide experience that will be of use to African countries facing similar problems in the field of land settlement or in the implementation of land reform at the local level.

M. Other social services

The newly-independent countries of Africa have expressed interest in the development of social welfare programmes by requesting assistance in the planning, organization and administration of social services and in the development of training programmes. The requests, while generally following the pattern of similar requests from emerging countries in other areas, have stressed the need for regional training programmes.

Training was considered sufficiently important to include a Seminar on Social Work Training in the 1963 programme of the United Nations. The Seminar was held at Lusaka, Northern Rhodesia, from 21 October to 2 November 1963. Directors of schools of social work and administrators of in-service training programmes participated. Recommendations to the Economic Commission for Africa included a request that consideration be given to the establishment of sub-regional institutions for training senior level social service personnel and that facilities should be provided in these institutions for intensive language training for those students who need it.

Another piece of evidence of interest in regional training is the large number of fellowships requested by neighbouring countries for the School of Social Work in the Ivory Coast. The Government of the Ivory Coast, recognizing its responsibility for the training needs of other French-speaking African countries, has requested the assignment of a United Nations general social welfare adviser to assist in improving the curriculum offered at the School. The Government has also requested a social work training adviser and a field work supervisor under OPEX to strengthen activities in the field of social work.

Following the recommendations of a United Nations social welfare adviser, the Government of Libya has requested an expert, on a payment basis, to advise in the development of a national programme in the social welfare field. Other countries, such as Algeria, Niger, Senegal, Togo and Tunisia, have also requested assistance in the planning, organization or administration of social services.

Nigeria and Uganda have requested social research advisers to assist in the assessment of available services and in planning sound social programmes. The practical research undertaken in these assignments also strengthens the general social welfare advisory services which are being provided to these two countries.

In Uganda and the United Arab Republic, United Nations assistance has been requested to strengthen in-service training programmes. In Uganda all officers of the Ministry of Social Affairs and Community Development attend an in-service training programme established by the Ministry with the assistance of a United Nations adviser. In the United Arab Republic directors of day-care centres and institutes for children have participated in the in-service training programme organized by the Ministry of Social Affairs with the assistance of a United Nations family and child welfare adviser.

N. Atomic energy

The main contribution of the International Atomic Energy Agency to the implementation of national development plans in Africa has been in agriculture. In Morocco, for instance, where there are great possibilities of increasing the yield per unit area of the main cereal crops, an expert has been assigned to utilize equipment for measuring soil water content by neutron moderation. The expert is implementing a plan to study the water needs of certain crops, particularly maize, and the changes of soil moisture under different conditions. In Ghana, another expert has continued to assist in a research programme concerned with the mineral nutrition of plants, particularly cocoa, and with the utilization of radio isotopes in soil fertility problems. In Kenya, isotope techniques have been used to assess the possibility of withdrawing water from a lake to expand an irrigation project. Two training fellowships have also been awarded in connexion with a project by the Government of the Federation of Rhodesia and Nyasaland for the use of tritium as a tracer in some problems of hydrology and agriculture.

Assistance to industrial development in Tunisia, by an expert who installed special equipment for the testing of road surfaces and building materials, was completed after national personnel had been trained to use the special equipment provided by the Agency.

Assistance has continued to be provided by making available the services of visiting professors. Two of these gave lectures on nuclear techniques at Leopoldville in the Congo Republic while a visiting professor advised the University of Ghana on the establishment of a radio chemistry programme.

The Agency has also responded to interest in the application of radio isotope techniques by making long-term training available to one fellow from Tunisia and another from Uganda.

TABLE I

Cost of Field Programme in Africa : 1961 - 1963

* including contingency allocations to 15 November 1963
 1/ See also Burundi and Rwanda
 2/ Common services

Country	1961 (Delivered)			1962 (Delivered)			1963		
	EPTA	Regular	Total	EPTA	Regular	Total	EPTA Annual average of 1963/64 Approved Programme *	Regular Estimated	Total
Algeria	3,642	-	3,642	34,694	188,000	222,694	522,300	300,963	823,263
Basutoland	14,118	850	14,968	95,221	17,250	112,471	97,520	5,000	102,520
Bechuanaland	20,678	-	20,678	3,592	9,761	13,353	56,154	-	56,154
British East Africa	33,169	-	33,169	-	-	-	-	-	-
Burundi	1/	1/	1/	1/	25,355	25,355	285,600	82,605	368,205
Burundi and Rwanda	23,733	4,663	28,396	406,424	3,892	410,316	101,500	32,000	183,500
Cameroon	222,592	100,909	323,501	641,477	400,688	1,042,165	507,109	218,663	725,777
Central African Repub.	104,183	-	104,183	224,206	21,391	245,597	207,310	25,777	235,107
Chad	68,840	12,662	81,502	191,474	41,048	232,522	272,188	86,277	358,465
Comoro Islands	-	4,000	4,000	21,822	2,002	23,824	35,559	-	35,559
Congo (Brazzaville)	59,604	11,392	70,996	153,213	52,110	205,323	151,160	18,000	169,160
Congo (Leopoldville)	-	112,119	112,119	-	121,148	121,148	513,100	210,325	723,416
Cyprus	121,898	23,881	145,779	285,047	92,175	377,222	254,700	95,351	350,081
Ethiopia	429,899	242,028	671,927	550,478	316,209	866,687	582,008	256,405	838,413
French Somaliland	-	-	-	4,646	-	4,646	-	-	-
Gambia	46,159	28,409	74,568	285,040	158,563	443,603	209,300	113,831	323,134
Ghana	28	-	28	39,022	1,879	40,901	78,748	10,600	89,343
Gambia	339,519	237,426	576,945	558,774	325,578	884,352	473,500	403,305	876,805
Gambia Coast	99,887	8,823	109,710	321,820	71,660	393,480	39,868	60,200	400,068
Gambia	117,721	8,546	124,267	402,099	118,768	520,867	211,350	66,700	348,050
Gambia	95,097	39,574	134,671	200,730	116,315	317,045	428,950	143,711	572,731
Gambia	204,874	155,229	360,103	232,150	179,012	411,162	222,193	283,021	505,217
Gambia	555,301	112,919	668,220	607,600	208,938	816,538	569,965	113,314	683,279
Madagascar	132,450	27,149	159,599	427,246	50,070	477,316	382,100	216,534	598,634
Malawi	84,099	30,787	114,886	279,728	206,454	486,182	293,075	199,840	492,915

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* including contingency allocations to 15 November 1963
2/See Rhodesia and Nyasaland

1961 (Delivered)

1962 (Delivered)

1963

Country	EPFA 1961 * 1961/62	Regular	Total	EPFA 1962 * 1962/63	Regular	Total	EPFA Annual average of 1963/64 Approved Programme*	Regular Estimated	Total
Swaziland	33,457	7,430	40,887	143,313	52,170	195,483	159,750	134,464	294,214
Lesotho	49,322	51,916	101,238	82,090	91,136	173,226	88,805	67,077	155,882
Botswana	381,567	61,542	443,109	486,675	172,228	658,903	478,296	372,361	850,557
Bechuanaland	99,933	44,766	144,699	228,851	242,390	471,241	301,250	104,001	405,251
Nigeria	426,149	124,162	550,311	1,166,424	303,275	1,469,699	953,612	381,883	1,335,495
Northern Rhodesia	3/	3/	3/	3/	3/	3/	3/	2,200	2,200
Northern Rhodesia	129,797	16,444	146,241	384,489	10,150	423,877	276,301	77,442	353,743
Northern Rhodesia	109,392	41,206	150,598	197,003	56,013	253,016	271,000	106,879	377,879
Northern Rhodesia	336,397	378,320	714,717	648,022	625,558	1,273,580	741,780	350,179	1,092,959
Northern Rhodesia	-	16,871	16,871	-	-	-	-	19,300	19,300
Northern Rhodesia	-	-	-	-	42,259	42,259	-	-	-
Northern Rhodesia	497,891	240,494	738,385	551,039	366,298	917,337	486,904	292,721	779,625
Northern Rhodesia	162,113	7,669	169,782	533,488	193,760	727,248	583,020	165,536	748,556
Northern Rhodesia	270,468	96,479	366,947	337,978	288,960	626,938	375,099	242,320	618,419
Northern Rhodesia	285,232	105,532	390,764	405,540	98,386	503,926	376,006	194,577	570,883
Northern Rhodesia	26,024	100,963	126,987	178,736	138,692	317,428	335,100	94,001	429,101
Northern Rhodesia	633,226	163,714	796,970	877,782	282,516	1,160,298	798,909	319,253	1,118,162
Northern Rhodesia	56,213	4,710	60,923	335,422	58,383	393,805	316,900	24,000	340,900
Northern Rhodesia	88,641	19,045	107,686	106,973	40,071	146,044	89,500	34,212	133,712
Northern Rhodesia	490,368	1,332,580	1,822,948	963,660	2,409,889	3,364,548	1,895,166	3,033,167	4,928,333
TOTAL	6,931,960	4,147,342	11,079,302	13,808,820	8,448,398	22,257,218	16,144,423	9,357,801	25,502,224

TABLE II

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Experts' Assignments in Africa : 1961 - 1963 2/ Common Services
 * including contingencies authorized
 up to 15 November 1963

Country	1961 (Delivered)				1962 (Delivered)				1963		
	EPTA	Regular	Total	EPTA	Regular	Total	EPTA (Approved)	Regular (Estimated)	Total		
Algeria	1	-	1	3	-	3	51	70	121		
Basutoland	1	-	1	6	-	6	9	-	9		
Bechuanaland	4	1	5	3	2	3	5	-	5		
British East Africa	4	-	4	3	-	3	24	7	31		
Burundi	2/	2/	2/	2/	2/	2/	4	8	12		
Burundi and Rwanda	5	-	5	32	17	50	39	15	55		
Cameroon	11	11	22	32	1	33	19	1	20		
Central African Republic	3	-	3	15	3	18	20	13	33		
Chad	-2	1	-	6	-	6	3	-	3		
Comoro Islands	-	-	-	1	-	1	11	1	12		
Congo (Brazzaville)	-4	4	-	10	-	10	28	12	40		
Congo (Leopoldville)	-	6	6	-	5	5	24	5	29		
Dahomey	7	2	9	19	4	23	42	16	58		
Dahomey	33	22	55	42	22	64	42	16	100		
Ethiopia	-	-	-	1	-	1	16	9	25		
French Somaliland	2	4	6	9	6	15	8	1	24		
Gabon	-	-	-	4	1	5	22	29	78		
Gambia	-	-	-	4	1	5	49	3	55		
Ghana	31	22	53	42	23	65	22	2	87		
Guinea	11	3	14	16	3	19	26	10	41		
Ivory Coast	11	-	11	23	5	28	31	17	48		
Kenya	9	3	12	10	11	21	17	2	34		
Liberia	17	13	30	11	10	21	38	10	47		
Libya	54	13	67	47	17	64	29	10	99		
Madagascar	7	11	18	22	1	23	23	14	37		
Mali	7	3	10	18	6	24	8	3	31		
Mauritania	1	2	3	7	3	10	7	4	14		
Mauritius	5	3	8	6	6	12	7	1	11		

TABLE II (cont'd)

Country	1961 (Delivered)			1962 (Delivered)			1963		
	EPTA	Regular	Total	EPTA	Regular	Total	EPTA (Approved*)	Regular (Estimated)	Total
Morocco	42	6	48	42	17	59	46	16	62
Niger	5	3	8	13	8	21	22	12	34
Nigeria	39	14	53	88	14	102	93	33	126
Nyasaland	-	-	-	=	-	-	11	1	12
Port. Terr. in Africa	-	8	8	-	7	7	-	6	6
Rhodesia and Nyasaland	6	6	12	10	9	19	21	6	27
Rwanda 2/	-	-	-	-	-	-	-	5	32
Senegal	10	1	11	20	3	23	27	7	29
Sierra Leone	12	4	16	13	5	18	22	7	32
Somalia	27	23	50	46	27	73	50	39	79
Sudan	36	22	58	36	27	63	37	8	55
Swaziland	-	-	-	4	-	4	6	1	7
Tanganyika	22	1	23	43	6	49	44	15	59
Togo	16	9	25	27	19	46	24	6	10
Tunisia	31	12	43	42	11	53	33	15	48
Uganda	2	6	8	11	8	19	27	7	34
United Arab Republic	68	15	83	77	15	92	87	17	104
Upper Volta	6	2	8	17	2	19	23	1	24
Zanzibar	5	2	7	11	4	15	7	2	9
Regional	33	88	121	42	133	175	111	133	244
TOTAL	595	342	937	929	463	1392	1268	611	1879

TABLE III
2/ Common services

Fellowships awarded to countries and territories of Africa : 1961 - 1963
* including contingency allocations to 15 November 1963

Country	1961 (Delivered)			1962 (Delivered)			1963		
	EPTA	Regular	Total	EPTA	Regular	Total	EPTA * (Approved)	Regular (Estimated)	Total
Algeria	3	2	5	2	32	34	-	6	6
Basutoland	3	2	5	5	3	8	1	1	2
Bechuanaland	-	-	-	-	-	-	1	-	1
British East Africa	-	-	-	-	-	-	-	-	-
Burundi	2/	2/	2/	12	13	25	1	-	1
Burundi and Rwanda	1	3	4	2/	2/	2/	14	-	14
Cameroun	41	25	66	49	40	89	24	11	35
Central African Republic	20	5	25	19	12	31	4	6	10
Chad	24	4	28	28	8	36	4	-	4
Comoro Islands	-	2	2	2	3	5	-	-	-
Congo (Brazzaville)	22	7	29	12	29	41	15	3	17
Congo (Leopoldville)	6	140	146	3	171	174	2	2	4
Dahomey	16	11	27	18	29	47	17	2	19
Ethiopia	18	47	65	19	42	61	7	14	21
French Somaliland	-	-	-	-	-	-	-	-	-
Gabon	15	6	21	12	19	31	5	3	8
Gambia	-	-	-	3	5	8	4	1	5
Ghana	24	26	50	37	35	72	1	3	9
Guinea	5	5	10	80	38	118	13	2	13
Ivory Coast	14	9	23	20	19	39	6	7	13
Kenya	13	12	25	50	28	78	1	3	19
Liberia	11	22	33	22	25	47	1	2	4
Libya	22	35	57	29	41	70	1	3	9
Madagascar	25	19	44	43	21	64	19	5	24
Mali	20	16	36	40	31	71	23	3	26
Mauritania	13	2	15	45	5	50	49	3	52
Mauritius	-	3	3	8	3	11	5	4	9

TABLE III (cont'd)

	1961 (Delivered)			1962 (Delivered)			1963		
	EPFA	Regular	Total	EPFA	Regular	Total	EPFA * (Approved)	Regular (Estimated)	Total
Morocco	13	27	40	19	56	73	3	16	19
Niger	19	6	25	23	10	33	30	6	36
Nigeria	36	37	73	53	89	142	2	19	21
Nyasaland	-	-	-	-	-	-	-	3	3
Port Terr. in Africa	2	5	7	4	4	8	-	7	7
Réunion	-	-	-	-	5	5	-	-	-
Rhodesia & Nyasaland	3	4	12	21	30	51	15	1	16
Rio Mure	-	-	-	-	1	1	-	1	-
Rwanda	-	-	-	-	4	4	-	-	-
Senegal	2/16	2/13	2/29	12	11	16	2	5	7
Seychelles	-	1	1	16	1	17	13	-	18
Sierra Leone	8	9	17	18	16	34	3	5	8
Somalia	26	28	54	56	33	89	9	13	22
South Africa	3	13	16	-	15	15	-	5	5
South West Africa	-	-	-	-	5	5	-	-	-
Southern Rhodesia	-	-	-	-	-	-	-	1	1
Sudan	46	66	112	61	72	133	3	29	32
Swaziland	-	-	-	3	1	4	1	-	1
Tanganyika	6	8	14	32	35	67	11	1	12
Togo	22	19	41	12	20	32	17	3	20
Turksia	32	27	59	35	45	80	8	10	18
Uganda	-	5	5	20	20	40	8	10	18
United Arab Republic	46	126	172	102	136	238	22	40	62
Upper Volta	7	2	9	36	13	49	13	2	15
Zanzibar	1	1	2	7	8	15	2	3	5
Regional	-	-	-	-	-	-	689	298	987
TOTAL	607	800	1407	1088	1282	2370	1081	577	1658