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ECONOMIC DEVELOPMENT OF UNDER-DEVELOPED COUNTRIES

SURVEY OF CURRENT WORK ON
INDUSTRIALIZATION AND PRODUCTIVITY

Survey of the work currently being undertaken under
the aegis of the United Nations, including the
specialized agencies, in matters relating to
industrial development and the improvement of
industrial productivity

(Economic and Social Council resolution 566 (XIX))

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INTRODUCTION

In paragraph 4 of the operative part of resolution 560 (XIX) of 7 April 1955, the Economic and Social Council:

"4. Requests the Secretary-General to prepare and submit to the Council at its twenty-first session a survey of the work currently being undertaken under the aegis of the United Nations, including the specialized agencies, in matters relating to industrial development and the improvement of industrial productivity;"

The purpose of this request is expressed in paragraph 5 of the resolution, in which the Council:

"5. Requests the Secretary-General, in the light of this survey, the study of Processes and Problems of Industrialization in Under-Developed Countries and the related discussion at the present session of the Council to prepare and submit to the Council at its twenty-first session a programme of work planned with particular reference to the question of accelerating industrialization and raising productivity in under-developed countries and of utilizing available forms of international assistance as fully and efficiently as possible for this end, taking into account at the same time the important implications of international trade on that question:"

A brief account of the action taken by the General Assembly and the Economic and Social Council in promoting the study of a programme of work in matters relating to industrialization and the improvement of productivity appears in the Introduction to the Programme of Work of the Department of Economic and Social Affairs,^{1/} submitted to the Council at its present session. The present survey is submitted to the Council at the same session as a background document in the light of which this programme was prepared.

The survey is mainly based on information supplied by the secretariats of the various organizations of the United Nations family in reply to a request from the Secretary-General; this was supplemented by information on current activities and programmes of work contained in various reports and documents of these organizations. The information was classified and analysed by the Bureau of Economic Affairs of the Department of Economic and Social Affairs and the draft survey was submitted to the secretariats of the organizations for review.

^{1/} E/2352.

As suggested in the discussion at the Economic Committee of the Council,^{1/} the survey attempts a general stock-taking of all the work being done by United Nations bodies in the field of industrialization and productivity.

After having defined the field of the inquiry (chapter 1), the survey presents a picture of the activities undertaken in this field by the secretariat of each organization (chapter 2). It discusses the scope of such activities in terms of broad categories of subjects. Certain of these activities are described in general terms; this description is supplemented by excerpts from statements by the secretariats of certain organizations, reproduced in the Appendix. The survey attempts to evaluate the relative emphasis laid on the various projects and, whenever possible, to find the reasons for the priorities attached to them.

The survey then compares the activities of the secretariats (chapter 3); it describes their respective areas of work and interest, their co-operation and the co-ordination of their work.

The survey then turns to a detailed enumeration of the projects (chapter 4). These are listed in tables where they are classified by main subjects and by organizations. Each project is briefly described and the nature of the work, the co-operation, if any, with secretariats of other organizations, the priority rating, the stage of work at the time of submitting the survey to the Council and the scheduled time for completion are indicated.

The projects under each subject item in the tables are then discussed and compared (chapter 5).

The last section of the survey summarizes the main findings and presents conclusions (chapter 6).

An Appendix to the survey contains excerpts from statements by the secretariats of certain organizations on their work in the matters under review.

Nineteenth session of the Economic and Social Council, Economic Committee, Summary Record of the hundred and seventieth meeting, document E/AC.6/SR.170.

Chapter 1

FIELD OF THE INQUIRY

According to the resolution, the survey must cover the work currently being undertaken in matters relating to industrial development and the improvement of industrial productivity. If these terms were interpreted in a strict sense, the survey would relate to the growth of manufacturing, mining and power generation industries only, leaving aside other important forms of economic development having a direct bearing on the development of industry.

Such an approach would hardly meet the purpose of the resolution. While the Council put the emphasis on industrialization and the improvement of industrial productivity, it has stressed in numerous discussions the interrelationship of all forms of economic activity. It was often recognized that while in most under-developed countries, rapid industrial development had a prominent place in their development objectives, it was intimately related to the progress of primary or tertiary activities. In the working paper (E/2384) submitted in implementation of Council resolution 416 F (XIV) on integrated economic development, the Secretary-General pointed out that "in the preamble to its resolution, the Council recognized that 'co-ordinated and integrated policies of economic development must make provision for industrial diversification, in harmony with the development of agricultural production, with a view to ensuring the economic independence of the countries concerned, taking full advantage of the benefits of international trade, and promoting the social welfare of their inhabitants'. Thus, the Council gave emphasis to the integrated policies of economic development as the framework within which the 'rapid industrialization' of under-developed countries might take place." In the preamble to the resolution under which the present survey is submitted, the Council again expressed its belief "that industrialization integrated with other forms of development is essential for rapid economic and social advancement in under-developed countries."

The nature and degree of this interrelationship may vary from country to country and, even within a country, may be contingent upon political, social or other considerations. For the purposes of this survey, a rather wide

definition of the field has been adopted. In addition to projects directly concerned with industrial development and productivity, the survey covers, on the one hand, projects of wider scope, relating to planning and programming and to the financial, fiscal, trade, foreign investment, manpower, social and other aspects of economic development in general and, on the other hand, projects dealing with certain related fields such as agriculture, forestry, timber and fisheries, construction and housing, and transport. It is attempted, however, to encompass only such projects as have a direct bearing on "accelerating industrialization and raising productivity in under-developed countries". Projects limited in scope or judged to be only remotely connected with the purpose of the resolution are omitted. In order to make purely industrial projects more apparent, projects relating, on the one hand, to economic development in general and, on the other hand, to agriculture, building and transport, are surveyed separately in the detailed discussion in chapters 4 and 5.

A further justification for adopting a broad field of subjects is to be found in the fact that the survey covers the highly diversified work of the secretariats of all organizations under the aegis of the United Nations, including the specialized agencies. A wide range of projects is thus covered, in accordance with resolution 521 (VI) in which the General Assembly requested the Economic and Social Council "to promote studies of a programme of rapid industrialization of the under-developed countries, including the economic, social, fiscal, technical and organizational problems involved". However, as the work under review involves both substantive and operational activities, some limitation of coverage is made necessary both by the purpose of the survey and by the need not to overload it with projects of limited scope. As the survey is, according to resolution 560 (XIX), essentially a background document in the light of which the programme of work of the Department of Economic and Social Affairs is prepared, it lays particular emphasis, on the one hand, on projects pressing the substantive aspects of the problems under review and, on the other hand, on substantive work done in connexion with operational activities. As regards operational activities, the survey limits itself in general to work of regional, inter-regional and international scope; projects of national scope

are included only in so far as they present a more general interest. A number of projects undertaken under the programmes of Technical Assistance of the United Nations are listed under the heading of the secretariats of the participating agencies. The main activities of the Technical Assistance Administration and of certain specialized and other United Nations agencies are described in general terms; most of the technical assistance projects are national in scope and, although they are important and have a direct bearing on the industrialization of recipient countries, are not listed nor discussed in detail. Information on such projects is to be found in various documents referred to in the survey and in the statements of certain organizations, reproduced in the Appendix.

Finally, the phrase "work currently being undertaken" of the resolution is interpreted so as to include in the survey continuing or ad hoc projects appearing in the 1955/56 programmes of work of the various secretariats, which are (1) initiated before or in the course of 1955 and are either completed during 1955 or at the time of submitting the present survey to the Council, or still in progress at that time, or (2) to be initiated in the course of 1956. However, in order to provide a more complete picture of the type of activities under review and in order to show their relative priorities, the list of chapter 4 includes a number of projects appearing in the 1955/56 programmes of work of certain secretariats, which are to be initiated after 1956 or which have been temporarily or indefinitely deferred;^{1/} it also includes, in a few cases, some important projects completed during 1954. Such projects, however, are not discussed in any detail in the analysis, which concentrates on the projects coming within the periods defined under (1) or (2) above.^{2/}

^{1/} Such projects of the Department of Economic and Social Affairs at Headquarters and in the regional economic commissions are also included in the "Programme of Work" together with other projects submitted to the Council.

^{2/} References to past activities of the secretariats may be made in the course of the analysis when required for throwing light on current projects or placing them in a necessary perspective.

Chapter 2

CURRENT ACTIVITIES BY ORGANIZATIONS

Information was requested from the secretariats of all organizations under the aegis of the United Nations whose activities have a bearing on the matters under review; these comprise:

(1) Secretariat of the United Nations

Department of Economic and Social Affairs

(a) Headquarters

(b) Regional Economic Commissions

Economic Commission for Asia and the Far East (ECAFE)

Economic Commission for Europe (ECE)

Economic Commission for Latin America (ECLA)

United Nations Technical Assistance Administration (UNTAAs)

Department of Trusteeship and Information from Non-Self-Governing Territories (UNTD)

(2) Secretariats of the Specialized Agencies of the United Nations

International Labour Organisation (ILO)

Food and Agriculture Organization (FAO)

United Nations Educational, Scientific and Cultural Organization (UNESCO)

World Health Organization (WHO)

International Bank for Reconstruction and Development (IBRD)

International Monetary Fund (IMF)

International Civil Aviation Organization (ICAO)

International Telecommunication Union (ITU)

World Meteorological Organization (WMO)

(3) Secretariats of other United Nations Agencies

United Nations Children's Fund (UNICEF)

United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA)

United Nations Korean Reconstruction Agency (UNKRA)

The information collected shows that the secretariats of all these organizations are engaged in some forms of work which directly or indirectly contributes to the economic development of under-developed countries.

A substantial majority of these secretariats are carrying out projects having a direct bearing on accelerating industrialization and raising productivity in under-developed countries. Only a few agencies' secretariats stated that their activities did not appear strictly to fall within the scope of this survey: these are the secretariats of the International Civil Aviation Organization, the International Monetary Fund and the International Telecommunication Union.

The Secretary-General of the International Civil Aviation Organization informed the Secretary-General that "though the safe and orderly development of civil aviation, which is the principal concern of the ICAO, contributes to economic development, none of the activities that this organization engages in, either through its regular programme or its participation in the Expanded Programme of Technical Assistance of the United Nations, would appear to fall properly within the scope of the survey called for by resolution 560 (XIX)."

The Managing Director of the International Monetary Fund stated:

"I understand /your request for information/ to be limited to an inquiry on the activities of the Fund in the specific fields of industrial development and the improvement of industrial productivity and not to be a general inquiry into the relation of our work to the economic welfare of our member governments and even to their general economic development programmes. The subject of industrial development and the improvement of industrial productivity are of more direct concern to the International Bank than to the Fund. While, of course, the Fund is keenly interested in all aspects of the economies of our member governments, we do not have under way or in contemplation any specific programme of work in these fields, nor are our activities directly connected to promotion of these objectives."

Finally, the Secretary-General of the International Telecommunication Union stated that although "there is no doubt that scientific and technical activities such as those that are being carried out under the aegis of the ITU have important incidences on the industrial field", the organization "is not studying, and has no activity directly concerned with, industrial development and the improvement of industrial productivity."

The scope and distribution of the current activities of the secretariat of each organization will now be examined.

(1) Secretariat of the United Nations

The relevant work of the United Nations Secretariat is carried out by the Department of Economic and Social Affairs both at Headquarters and in the three

regional economic commissions, by the Technical Assistance Administration and by the Department of Trusteeship and Information from Non-Self-Governing Territories.^{1/}

Department of Economic and Social Affairs

(a) Headquarters

The relevant work of the Department at Headquarters is carried out by the following units: Bureau of Economic Affairs (UNBEA), Statistical Office (UNSTAT), Transport and Communications Division (UNTC) and Bureau of Social Affairs (UNBSA).

Bureau of Economic Affairs

At its nineteenth session, the Council, having made a preliminary examination of the report on Processes and Problems of Industrialization in Under-Developed Countries^{2/} and of the working papers^{3/} dealing generally with the problems of industrialization and productivity, did not request the Secretary-General to undertake new economic studies in this field; it requested him to prepare and submit to the twenty-first session three special projects relating to industrialization and productivity, namely a supplement to the bibliography, the present survey and a programme of work. In the period of particular interest for the purpose of this survey, i.e. between the nineteenth and the twenty-first

^{1/} The work undertaken by the Department of Economic and Social Affairs at Headquarters derives from resolutions of the General Assembly and the Economic and Social Council and its functional commissions; the work of the secretariats of the commissions stems either from requests of the Council to the commissions or from resolutions adopted by the commissions, subject to Council approval. (The commissions enjoy, by delegation from the General Assembly and the Economic and Social Council, a wide measure of initiative and decision in matters falling within their regional competence.) The work of the Technical Assistance Administration is undertaken under General Assembly and Council resolutions, at the request of governments. The relevant work of the Department of Trusteeship and Information from Non-Self-Governing Territories is carried out under Article 73 e of the Charter.

^{2/} E/2670, United Nations publication, Sales No. 1955.II.8.1.

^{3/} E/2604 and Corr.1 and 2, E/2689 and E/2690.

sessions of the Council, the Bureau of Economic Affairs has been preparing these projects and completing studies previously initiated.

Only a limited number of projects of the Bureau relating directly to industrial development and productivity are thus listed in chapter 4. Almost all projects listed as completed or in progress were initiated under resolutions adopted at previous sessions of the Council or the General Assembly. The projects listed as "under consideration" are those which appeared in the programme of work of the Bureau at the beginning of 1955.

It may be pointed out, in this connexion, that only a few projects dealing with individual industries have been studied by the Bureau, largely because the Council's requests generally involve projects of global scope; furthermore, those industry projects involving technological research, which may be most effectively studied on a regional or national level, have been usually dealt with by the commissions' secretariats. In the past as well as during the period under consideration, the projects of the Bureau have been concerned principally with the general economic processes of industrialization, international or inter-regional comparisons and the international co-operation and inter-agency aspects of the subject. There have been some exceptions in the case of projects relating to regions where no commissions are set up, or studies relating mainly or partly to regions within the purview of the commissions but aiming at reaching general conclusions, or studies within the competence of the commissions which, because of pressure of time, lack of resources or other reasons, were not dealt with by the regional staffs.^{1/}

The current activity of the Bureau relates to planning and programming, financial, fiscal, trade and foreign investment aspects of economic development in general, economic and technological aspects of industrial development, power and water resources, cottage and small-scale industries and agriculture and related problems.^{2/} The Bureau also co-operates in the Technical Assistance Programme of the United Nations.

^{1/} Examples of such cases are provided by the following projects listed in chapter 4: UNBEA B.1 (b)(ii) under item 6.A, UNBEA B.1 (c)(ii) under item 16, UNBEA and UNBEA B.3 under item 8, UNBEA B.1 under item 1 and UNBEA E.7 under item 2.

^{2/} Items 1, 2, 3, 6.A, 16, 15 and 17 in the list of chapter 4.

In the field of planning and programming, the Bureau is carrying out preliminary studies on general principles and basic common techniques of programming.^{1/} Its studies relating to the financial, fiscal and trade aspects of economic development in general deal respectively with the role of fiscal and financial measures in promoting domestic and foreign private investment in under-developed countries^{2/} and the analysis of trends in the international flow of private capital for economic development.^{3/} These problems are approached from the standpoint of international comparison, one project being studied with particular reference to Latin American countries, or, as in the case of the assistance to Mr. Scheyven and the Advisory Committee on SUNFED, in view of the possible establishment of an international fund.

The largest number of projects of the Bureau in a given field relates to power and water resources. These projects were initiated under resolutions adopted by the Council prior to its nineteenth session.^{4/} All the current projects on conventional and unconventional sources of energy and water resources utilization and development^{5/} and the proposed study on multi-purpose projects^{6/} are world-wide in scope. The study on water resources in Africa,^{7/} however, deals with a region which is not under the jurisdiction of a regional commission; the same is true of the proposed study on industrialization in the Middle East.^{8/} The reports on iron ore resources and non-ferrous metals in under-developed countries^{9/} have a world-wide coverage. As regards cottage and small-scale industries, the activity of the Bureau has recently consisted in participating in the work of an expert group on technological centres.^{10/} Finally, in the related

^{1/} UNBEA B.1 (a) under item 1.

^{2/} UNBEA B.6, E.6, E.7 and E.14 under item 2.

^{3/} UNBEA A.2 under item 3.

^{4/} Resolutions 345 (XII), 417 (XIV) and 533 (XVIII).

^{5/} UNBEA B.2 (a), (b), (e), (f) and (g) under item 16.

^{6/} UNBEA B.2 (c), *ibid.*

^{7/} UNBEA B.1 (c)(ii), *ibid.*

^{8/} UNBEA B.1 (b)(ii) under item 6.A.

^{9/} UNBEA project and UNBEA B.3 (a) under item 8.

^{10/} UNBEA project under item 15.

field of agriculture, the Bureau is preparing, in collaboration with ILO and FAO, a second progress report on measures and effects of land reform^{1/} which will also include a study of the impact of land reform measures on economic development.

Statistical Office of the United Nations

The activities of the Statistical Office have a bearing on the matter under discussion in that the statistics prepared by the Office are essential in quantifying the problems of economic development and industrialization. Continuing activities include compilation of recurrent statistics, development, review of recommendations and assistance to governments with respect to objectives, definitions and methods for collecting and compiling statistics.

The Office also undertakes specific projects directly relevant to economic and, in particular, industrial development. Two current projects are listed in chapter 4. One concerns the outlining of a minimum programme for economic and social statistics required by governments in order to plan and assess economic development;^{2/} the other consists in reviewing standards for censuses of industry^{3/} in the light of country requirements. Recommendations to governments on standards for 1960 censuses of population are also now in progress.

Transport and Communications Division

Most of the projects in the field of transport which are relevant to the survey are studied from a regional standpoint and, as will be seen in chapter 4, practically all appear in the programmes of the regional economic commissions. The Transport and Communications Division is currently co-operating with the secretariat of ECLA in carrying out specific projects in connexion with the Central American Integration Programme. It also has undertaken a study on the existing facilities and the assessment of transport requirements in the Middle East.^{4/}

^{1/} UNBEA B.4 under item 17.

^{2/} UNSTAT project under item 1.

^{3/} UNSTAT project under item 6.A.

^{4/} UNTC projects under item 19.

Bureau of Social Affairs

The activities of the Bureau of Social Affairs in the field under consideration primarily originate in the work programmes recommended by the Social Commission and the Population Commission. Relevant current activities in the field of population are listed, in chapter 4, under item 4 (manpower, social and related aspects); some of the activities in the field of social welfare are also listed under item 4, with others listed under items 15 (community development) and 18 (construction and housing).

The work of the Bureau in the field of population is related to the more general aspects of the economic development process. Continuing work is being done on population projections and on analyses of the interrelationships of demographic, economic and social factors in the development of under-developed countries.^{1/} Pilot studies of such aspects in various under-developed countries or groups of countries are being planned;^{2/} one such study concerning Mysore State, India^{3/} is now in progress. Some work has also been done on the demographic aspects of labour supply.^{4/}

The projects in the field of social welfare having a direct bearing on industrial development of under-developed countries include housing conditions town and country programmes and regional planning,^{5/} and community development.^{6/} These range from social studies to practical help and technical assistance. Continuing work is done on the international definition and measurement of standards and levels of living.^{7/}

In the field of urbanization, which is closely associated with the industrialization process, the Bureau of Social Affairs is working on a long-range programme in co-operation with the specialized agencies concerned;

^{1/} UNBSA-PC 1 (a) and (d), and UNESA-PC 3 under item 4.

^{2/} UNBSA-PC 4 and UNESA-PC 2 (1), ibid.

^{3/} UNESA-PC 2 (b), ibid.

^{4/} UNBSA-PC 2 (j), ibid.

^{5/} UNBSA-SC, UNESA-SC 17, 18, 19 and 20 under item 18.

^{6/} UNBSA-SC 11, 12 and 13 under item 15.

^{7/} UNBSA-SC 5 under item 4.

currently, it is preparing an extensive analysis of urbanization in the Second Report on the World Social Situation^{1/} and, in co-operation with ECAFE and UNESCO, is organizing a Seminar on Urbanization in the ECAFE region.^{2/}

The Bureau's interest in the problems and processes of social development in general, which is reflected in its continuing series of Reports on the World Social Situation and International Surveys of Programmes of Social Development, inevitably leads to considering in these reports the interrelation between social and economic development. Similarly, specialized current projects on family welfare services and on problems of criminality approach their subject in the context of economic development as well as social change, taking account of the implications of industrialization.^{3/}

Department of Trusteeship and Information from Non-Self-Governing Territories

Information including data on industrial development and industrial productivity in Non-Self-Governing Territories is summarized by this Department for submission to the Fourth Committee and the General Assembly for their consideration.^{4/} A number of studies relating directly or indirectly to industrial development in Non-Self-Governing Territories are prepared every three years by the Department. A recent study covered development plans in these territories.^{5/}

(b) Regional Economic Commission

The terms of reference of all three commissions^{6/} state that the commissions shall, subject to governments' agreement, initiate and participate in measures for facilitating concerted action for raising the level of economic activity in their regions. The terms of reference of ECAFE and ECLA,

^{1/} UNBSA-SC under item 4.

^{2/} UNBSA-SC 6 and ECAFE 02-03 under item 4, and UNESCO project under item 18.

^{3/} UNBSA-SC 22, 23 and 34 under item 4.

^{4/} UNTD project under item 5.

^{5/} Study on Economic Conditions in Non-Self-Governing Territories, 1955
(Sales No.: 1955.VI.B.1) pages 6 to 55.

^{6/} Cf. ECAFE: E/2712, E/CN.11/407; ECE: E/ECE/199; ECLA: E/2405, E/CN.12/324.

whose memberships include a majority of under-developed countries, emphasize the assistance which must be rendered by these commissions in promoting economic development; in particular, the terms of reference of ECLA state that the commission shall "give special attention in its activities to the problems of economic development and assist in the formulation and development of co-ordinated policies as a basis for practical action in promoting economic development in the region." While the terms of reference of ECE, whose membership includes only a relatively small number of under-developed countries, make no explicit reference to promotion of economic development, this commission, in pursuance of the general recommendations of the Economic and Social Council and the General Assembly, is also paying attention to this task and is carrying out a necessarily limited number of projects specifically aimed at the development of its under-developed members.^{1/} Most of the regional secretariats' projects discussed in this survey are therefore those of ECAFE and ECLA. Yet, much of ECE's work relating to technological and economic aspects of various industries is of considerable value to under-developed countries and has been included in this survey.

As many studies are of inter-regional interest, close co-operation and liaison are maintained between the secretariats of the commissions. During 1954/55, the collaboration of the secretariat of ECAFE with that of ECE further developed in the fields of trade and trade promotion, mineral resources, iron and steel, electric power, housing and inland transport. The secretariat of ECLA also contributed to ECE studies on steel and exchanged information with the secretariat of ECAFE.

The activities of the secretariats of the three commissions^{2/} encompass the whole field under investigation. The emphasis of their present work programmes lays on appraisal and promotion of economic growth, appraisal of resources, in particular of capital formation, studies of specific industries, promotion of measures of international co-operation and rendering of advisory services to governments.

^{1/} In particular, the work of the group of experts on the economic development of southern Europe.

^{2/} These activities are examined here in their main lines and are discussed as a whole rather than with reference to each secretariat.

Almost all the continuing work listed in chapter 4 under the headings of mineral resources and mining, iron and steel, engineering, chemical industries, power and water resources, construction and transport^{1/} is being done or is planned to be done by the regional commissions' secretariats.^{2/}

Most of their projects in these fields deal with specific technical and economic aspects of the subjects. The current projects are mainly carried out through dissemination of information, research and rendering of advisory services to governments; an appreciable number of working parties, conferences and study tours of experts are also organized. More ambitious projects aiming at building pilot plants or organizing demonstration projects appear on current programmes of work; they are, however, in the "deferred" category.

Other fields are of common interest to the secretariats of the commissions and of one or several other agencies and organizations, and the nature of the work undertaken is usually determined by the respective terms of reference. These fields comprise planning and programming, financial, fiscal, trade, foreign investment, manpower and social aspects of economic development, industrial development and industrial productivity and, with regard to special sector studies: textiles, food processing, other manufacturing, cottage and small-scale industries, agriculture, forestry, timber and fisheries and housing.^{3/}

In the field of planning and programming, important continuing projects aim at developing, in the course of country studies, a body of techniques of programming and projecting economic trends with a view to rendering assistance

1/ Items 8, 9, 10, 11, 16, 18 and 19.

2/ It will be seen in chapter 3 that specific projects in these fields are mainly within the general area of work of the Department of Economic and Social Affairs, both at Headquarters and the commissions, of ILO and UNKRA. Headquarters' approach is usually general rather than regional in scope and economic more than technical in nature; its studies in these fields are generally of an ad hoc nature. ILO's industrial committees study economic and technological questions connected with labour and productivity problems. UNKRA's work is essentially operational.

3/ Items 1, 2, 3, 4, 6.A and B, 7.A, B and C, 12, 13, 14, 15, 17 and 18. The spheres of interest and the co-operation between organizations are discussed in chapter 3.

and advice to governments.^{1/} The pertinent studies on trade deal with its relationship to economic development. The projects destined to improve industrial productivity relate mainly to production techniques, standardization and the standardization and the establishment of training centres. Dissemination of information and research are carried out in the fields of cottage industries, agricultural development programming, mechanization in agriculture, techniques of forestry, and construction.

Some fields have so far received relatively less attention than others. Only few projects have been devoted to certain industries such as engineering, chemicals, textiles, food processing and other manufacturing^{2/} and, on a different plane, to the social aspects of economic and industrial development.^{3/} The explanation lies largely in the fact that the priorities in the development schemes of the participating countries influence budgetary and staffing allocations which, in turn, affect the work priorities of the commissions' secretariats.^{4/} The resources of the secretariats have thus so far been mainly applied to projects in planning and programming and studies relating to basic industries such as mining, iron and steel, power, construction and transport;^{5/} less attention has been paid to manufacturing industries, particularly those producing finished goods. Even in the case of basic industries, the priorities as between projects may reflect the relative priorities attached to industries in the over-all development of the economies in the regions: for instance,

^{1/} It should be noted, in this connexion, that the absence, under item 6.A "Industrial developments in general: Economic and technological aspects", of specific projects of the commissions' secretariats, results from the fact that such projects, which are generally the core of planning and programming of economic development, are implicitly included under item 1.

^{2/} Items 10, 11, 12, 13 and 14.

^{3/} Items 4 and 6.B.

^{4/} A statement explaining the reasons for the delay in initiating certain projects at ECLA is contained in ECLA's Report to the Sixth Session, E/2796/Rev.1, E/CN.12/387/Rev.1, part V, paragraphs 151 to 155.

^{5/} Items 1, 8, 9, 16, 18 and 19.

the development of certain industries, say, aluminium or chemicals, is contingent, inter alia, on a prior development of power supply.^{1/} The work of the commissions' secretariats in the field of consumers goods has, so far, been mainly directed towards their development on a handicraft or small-industry level. A certain number of projects on specific industries (pulp and paper, engineering, chemicals) which are being carried out or envisaged by the commissions' secretariats are described in chapters 4 and 5.

The relatively low priority attached so far by the commissions to projects on the social aspects of economic development is explained in part by the fact that such studies have been and are being intensively carried out by UNESA, ILO and UNESCO. Nevertheless, some studies in this field have been initiated or planned by ECLA on the social factors affecting economic development and programming, on population growth and manpower requirements and on migration^{2/} and by ECAFE on the relationship between population growth and economic development;^{3/} ECAFE is also carrying out or planning a number of projects in the related fields of community development and housing.^{4/} ECE's "Economic Survey of Europe, 1955" contains a chapter on labour market problems in western Europe.

In 1955, in order to organize more effectively the work of the Secretariat of the United Nations in the field of social affairs, including advisory social welfare services, it was decided to detail a number of social affairs staff from Headquarters to the secretariats of ECAFE and ECLA and to the Middle East area. It was envisaged that, besides helping the regional secretariats to deal more adequately with the social aspects of economic problems, these arrangements would allow stronger support to be given to technical assistance in the social

1/ An ECAFE project on the expansion of the aluminium industry in the region (ECAFE 36-10 under item 8) is in the "deferred" category.

2/ ECLA 3(e) and (f) and ECLA 11 under item 4.

3/ ECAFE 02-03, ibid.

4/ ECAFE 11-02(c) under item 17 and ECAFE 34-01(b), 34-02 and 34-05 under item 18.

field and to the programmes of UNICEF. In the ECAFE and ECLA regions, the social affairs officers assigned to this work will constitute units which will be integral parts of the ECAFE and ECLA secretariats.^{1/} Work in this field has already started and programmes are being planned.

United Nations Technical Assistance Administration

The work of the Technical Assistance Administration is undertaken under General Assembly and Council resolutions, at the request of governments. The Administration has the major responsibility over all the operational aspects of the programme;^{2/} the responsibility of the Department of Economic and Social Affairs with respect to technical assistance is substantive.

The technical assistance of the United Nations provides comprehensive advice to governments on their programmes of development and aims at facilitating the international transmission of modern techniques and their adaptation to the particular conditions of under-developed countries. It may be rendered with respect to all projects which contribute to the economic and social development of such countries; it thus has a direct impact on industrialization and the improvement of industrial productivity.

Technical assistance now being rendered covers a wide field of subjects. The relevant main areas include: general economic development, including economic surveys, statistics and trade promotion; public finance; industrial development, including development of primary resources, metallic and non-metallic mineral resources, power production and distribution, oil resources, water resources, and techniques and processes in industry; transport; public administration; and social welfare, including social surveys, population and migration development, advisory social welfare services,^{3/} housing and town and country planning, community organization and rural welfare.

^{1/} The work programmes of these units will be prepared by the Executive Secretaries and will be submitted to the Under-Secretary for Economic and Social Affairs for his approval. Implementation of the programmes will be under the direction of the Executive Secretary concerned. See the Report of the Secretary-General on the Organization of the Secretariat (A/3041).

^{2/} Expanded and regular programme of technical assistance.

^{3/} Rendered under General Assembly resolution 418 (V).

Many projects in these fields, which are of regional or inter-regional scope, are listed in chapter 4 under the heading of the co-operating organization, with indication of the joint action of UNTAA. The majority of UNTAA projects are, however, of interest primarily to the governments receiving assistance and, in view of the limitations described in chapter 1, fall beyond the scope of this survey. Nevertheless, as such projects are of immediate and concrete importance to countries undergoing a process of industrialization, a brief indication of their scope in the field of industry development may be made here: projects now being carried out relate to industrial development programmes and policies, including economic, legal, technological and organizational aspects; mining, metallurgy, metal-working, engineering, heavy and other chemicals, antibiotics, textiles, food processing, rubber, pulp and paper, leather, cement, refractories, glass, etc. Work is also carried out in the related fields of power and water resources, organization, rationalization and management of enterprises and other methods of improving productivity, and small-scale and cottage industries.

The assistance supplied by UNTAA includes provision of expert advice, either individually or in teams. UNTAA also makes available fellowships and scholarships for studies contributing to economic and social development, organizes training institutes and centres, meetings and seminars of experts, contributes to the establishment of institutions of scientific and industrial research and the organization and operation of demonstration projects and pilot plants, and serves as clearing-house for the dissemination and exchange of technical information.

A detailed description of the nature and scope of the regular programme of UNTAA is to be found in reports of the Secretary-General^{1/} and, as regards the Expanded Technical Assistance Programme, in reports of the Technical Assistance Board to the Technical Assistance Committee.^{2/}

1/ See, for 1954, E/2736; a corresponding report for 1955 will be submitted to the twenty-second session of the Council

2/ See for 1954 and 1955: "Seventh Report of the Technical Assistance Board", E/2714, E/TAC/REP/35; (the Eighth Report will be issued in May 1956;) and, for 1956: E/TAC/L.86 and Add.1 and 2, and E/TAC/L.88.

(2) Specialized Agencies of the United Nations

International Labour Organisation

As stated in its communication to the Secretariat,^{1/} "ILO activities relating to industrial development embrace a very large proportion of all activities of the Organisation." Indeed, the various stages of industrial development give rise to a great number of problems within the terms of reference of this agency. At the planning stage, "labour statistics and manpower surveys provide an important element in the information upon which all plans for integrated economic development should be based. Manpower policy should be an integral part of economic planning. Effective formulation and execution of this policy requires a well-organized employment service. The most important step towards meeting the needs of industry for the services of skilled workers and technicians is the carrying into effect on a national scale of a complete and well-co-ordinated programme of vocational training. Immigration can, under certain conditions, and in particular if appropriate measures are taken to assist prospective migrants, provide industry with skilled foreign workers while local workers are still being trained." ILO projects also deal with unemployment and under-employment, wage policy, workers housing, social security, terms of employment, working hours and conditions of work, occupational health and safety, labour legislation, labour-management relations and labour productivity.

ILO action to assist countries in solving these problems includes research and publications, tripartite international conferences and committee meetings and the provision of technical assistance.

The current projects corresponding to these activities relate to the manpower, social and related aspects of economic and industrial development, industrial productivity, cottage, small-scale industries, community development, co-operatives and housing.^{2/}

^{1/} The statement of ILO is reproduced in the Appendix.

^{2/} Items 4, 6.B, 7.A, B and C, 15 and 18. Certain industry studies are also carried out by ILO's industrial committees.

Most of the projects listed under item 4 deal with the setting of international labour standards and legislation^{1/} and with labour statistics; a few are intended for use as guides in practical assistance, such as the "Guide to Manpower Surveys" and the study on "International Classification of Occupations for Migration and Employment Placement". Most of the projects in the other fields come either under the latter heading or the heading of direct assistance. In the field of industrial productivity, for example, ILO has recently completed two important studies on methods of raising productivity, one of them with reference to manufacturing industries; continuing assistance is given by ILO to industrial productivity centres and vocational training centres.^{2/} ILO is also promoting co-operative activities, including co-operative housing. Technical assistance missions are undertaken to promote handicrafts and small-scale industries.^{3/}

The projects listed in this survey and other projects undertaken under the Expanded Programme of Technical Assistance and the regular programme,^{4/} illustrate the shift in emphasis noted in the eighth and ninth reports of the ILO to the Economic and Social Council "away from concern with general principles and broad aspects of productivity towards the study of specific and practical problems." ILO, however, stresses that this shift is not and should not be complete. "In fact, much remains to be done in the form of general studies to promote a wider understanding of the true meaning of higher productivity. Moreover, general principles have to be constantly reviewed in the light of experience gained in operational work and in the detailed study of specific problems."^{5/}

^{1/} Five first ILO projects under item 4.

^{2/} Under item 7.A and B.

^{3/} See under items 15 and 18.

^{4/} A number of such projects are mentioned in ILO's statement reproduced in the Appendix.

^{5/} Ninth report of the International Labour Organisation to the United Nations, Geneva, 1955, page 5.

In the field of industrial productivity, FAO's current activities relate to standardization, participation in training centres and management practices.^{1/} Its work in the field of nutrition and food technology^{2/} has a bearing on this matter, not only because the nutritional status of the workers is an important contributory factor, but also because food technology forms the basis of the modern food industry.

An important study from the point of view of the survey is the project concerning rural industries.^{3/} Such industries process local raw materials and use local labour which is generally drawn from agriculture; the advantage of such industries is that they can develop without large capital investments. Another project which affects at the same time agricultural production and the development of rural industries is the study of mechanization in agriculture and the setting up of small implement centres.^{4/} Provision of advice to governments on agricultural engineering is a continuing activity. A project to be initiated in 1956 would study the peaceful uses of atomic energy in agriculture and food production.^{5/}

United Nations Educational, Scientific and Cultural Organization

UNESCO's projects related to the problem under consideration fall under the main headings of social sciences, natural sciences and education. These projects relate to social and other aspects of economic and industrial development, industrial productivity, energy and urbanization.^{6/}

As stated in a communication to the Secretariat,^{7/} "UNESCO's programme [in the field of social sciences] is directed at bringing the resources of the social sciences to bear upon practical problems of international significance."

^{1/} FAO Ec. 3.2 under item 1, FAO project under item 7.A, joint UN/ILO/FAO/UNESCO/WHO project under 7.B and FAO Fo. 3.2. under 7.C.

^{2/} FAO project under item 4 and FAO Nu. 2.1.4. under item 13.

^{3/} FAO Ag. 7.2 under item 15.

^{4/} FAO Ag. 3.6 under item 17.

^{5/} FAO project under item 17.

^{6/} Items 4, 5, 6.B, 7.A, B and C, 16 and 18.

^{7/} The statement of UNESCO is reproduced in the Appendix.

Some of the studies in this area deal with the social and cultural implications of industrialization and related developments such as technological change and urbanization. These studies are both general and regional in scope. As regards projects of general scope, the International Research Office on Social Implications of Technological Change, which was set up in 1953 by the International Social Science Council under contract with UNESCO, acts as a central clearing house and stimulus for research work in this field. It also organizes research for UNESCO on problems of social change related to technological change. As regards the regional approach, a Research Centre on the Social Implications of Industrialization in Southern Asia was established in Calcutta (India) in January 1956. Its main objective is to aid the participating countries in developing their social science resources and to undertake research. With the help of library and documentation service, the Centre will assemble, analyse and make widely known existing research and further assist its development as well as make studies at the request of governments. Another current study concerns the development of techniques of evaluation, with a view to providing a guide to operational agencies in the carrying out of international projects.^{1/} Among social science projects now being planned are a symposium on the meaning and criteria of economic projects in Latin America^{2/} and a comparative study of the sociological psychological and cultural factors affecting productivity.^{3/}

UNESCO's activity in the field of natural sciences "falls into three parts: the first is concerned with the development of international co-operation in natural sciences, the second with the international organization of research for the improvement of the living conditions of mankind and the third with the teaching of science and the spread of scientific knowledge and methods." Relevant projects under these headings include assistance in the organization of international scientific congresses, seminars and regional science co-operation

^{1/} Under item 6.B.

^{2/} Under item 4.

^{3/} Under item 7.A.

Food and Agriculture Organization of the United Nations

The work of the Food and Agriculture Organization extends over the entire field of problems related to agriculture,^{1/} food and nutrition, and is thus of primary importance for the economic development of under-developed countries. For the purposes of this survey, it is considered from a narrower point of view; the FAO projects listed and discussed here are not necessarily representative of the main activities of this organization as projects directly aiming at promoting agriculture have been considered beyond the scope of the survey. Moreover, many continuing activities having a bearing on the matters under review, which are either of a general nature or relate to technical assistance projects of strictly national interest, are not listed in this report.

A large part of FAO's general work is directed towards the development of agriculture within the broader framework of general economic development. As stated in a communication to the Secretariat, "FAO assists in the preparation of agricultural programmes in order to help maintain a sound economic balance between industry and agriculture and so to ensure that increases in farm output are matched by an expansion in demand and that decisions to introduce labour-saving improvements are related to possibilities of useful employment for the workers released". FAO is giving many member countries direct assistance in working out agricultural development programmes, or in setting up national machinery of their own for such purposes. For details on such activities, reference is invited to a statement of FAO reproduced in the Appendix.

The discussion below is made primarily with reference to projects listed in chapter 4. These fall under the headings of planning and programming, financial and social aspects of economic development, industrial productivity, textiles, food processing and other manufacturing industries, cottage and small-scale industries and agriculture, forestry and fisheries.^{2/}

^{1/} The term "agriculture" and its derivatives include forestry and primary forestry products, fisheries and marine products.

^{2/} Items 1, 2, 4, 7.A, B and C, 12, 13, 14, 15, 16 and 17.

A project to be initiated in 1956 would carry out a survey and appraisal of world agricultural, fishery and forestry resources in relation to needs.^{1/} Such an assessment would provide guide-lines for long-term programming, notably for investment, and also for technical assistance.

The general work of FAO to improve and promote the production of agricultural raw materials stimulates, in the various countries, the development of industries processing such materials. FAO is also undertaking projects directly concerned with the development of such industries: projects on the processing of milk and dairy products, ghur, olive oil, fishery products, wool, hard fibres and rubber^{2/} are under way, and further studies are being planned. Other studies relate to marketing of agricultural products, including handling, grading, packaging, transport and storage.^{3/}

The field of forestry is more directly related to industrial development than any other of FAO's main areas of work. As stated in a communication to the Secretariat, "FAO's responsibilities in forestry include forestry industries and the marketing of their products, as well as the management and conservation of forest resources, since a sound forest policy is based on the whole process of timber production, conversion and distribution. The development of forest industries, even of heavily capitalized ones, such as pulp and paper factories, is surveyed and planned in relation to the consumer demand on the one hand, and the availability of a continuous supply of raw materials on the other. FAO also concerns itself with the techniques and equipment used in logging operations and in mechanical and chemical forest industries, such as sawmills, pulpmills, fibreboard factories, veneer and plywood mills." A number of continuing projects are listed in chapter 4 to illustrate this activity.^{4/} A few examples of FAO's work on the marketing and technological aspects of fisheries^{5/} are also given in the tables.

^{1/} FAO project under item 17.

^{2/} FAO Ag. 5.5, Ag. 7.2, Fi. 4.4 under item 13, FAO projects under item 12 and FAO Ag. 7.2 under item 14. Most of the projects on the processing of milk and dairy products are undertaken with the co-operation of UNICEF; WHO co-operates in the establishment of milk quality standards.

^{3/} FAO Ec. 3.7 and FAO Ag. project under item 17.

^{4/} FAO Fo. 3.4., Fo. 4.3 and other FAO projects under item 17.

^{5/} FAO Fi. 2.4., Fi. 4(1), Fi. 4.3. and FAO Fi., ibid.

In the field of industrial productivity, FAO's current activities relate to standardization, participation in training centres and management practices.^{1/} Its work in the field of nutrition and food technology^{2/} has a bearing on this matter, not only because the nutritional status of the workers is an important contributory factor, but also because food technology forms the basis of the modern food industry.

An important study from the point of view of the survey is the project concerning rural industries.^{3/} Such industries process local raw materials and use local labour which is generally drawn from agriculture; the advantage of such industries is that they can develop without large capital investments. Another project which affects at the same time agricultural production and the development of rural industries is the study of mechanization in agriculture and the setting up of small implement centres.^{4/} Provision of advice to governments on agricultural engineering is a continuing activity. A project to be initiated in 1956 would study the peaceful uses of atomic energy in agriculture and food production.^{5/}

United Nations Educational, Scientific and Cultural Organization

UNESCO's projects related to the problem under consideration fall under the main headings of social sciences, natural sciences and education. These projects relate to social and other aspects of economic and industrial development, industrial productivity, energy and urbanization.^{6/}

As stated in a communication to the Secretariat,^{7/} "UNESCO's programme [in the field of social sciences] is directed at bringing the resources of the social sciences to bear upon practical problems of international significance."

^{1/} FAO Ec. 3.2 under item 1, FAO project under item 7.A, joint UN/ILO/FAO/UNESCO/WHO project under 7.B and FAO Fo. 3.2. under 7.C.

^{2/} FAO project under item 4 and FAO Nu. 2.1.4. under item 13.

^{3/} FAO Ag. 7.2 under item 15.

^{4/} FAO Ag. 3.6 under item 17.

^{5/} FAO project under item 17.

^{6/} Items 4, 5, 6.B, 7.A, B and C, 16 and 18.

^{7/} The statement of UNESCO is reproduced in the Appendix.

Some of the studies in this area deal with the social and cultural implications of industrialization and related developments such as technological change and urbanization. These studies are both general and regional in scope. As regards projects of general scope, the International Research Office on Social Implications of Technological Change, which was set up in 1953 by the International Social Science Council under contract with UNESCO, acts as a central clearing house and stimulus for research work in this field. It also organizes research for UNESCO on problems of social change related to technological change. As regards the regional approach, a Research Centre on the Social Implications of Industrialization in Southern Asia was established in Calcutta (India) in January 1956. Its main objective is to aid the participating countries in developing their social science resources and to undertake research. With the help of library and documentation service, the Centre will assemble, analyse and make widely known existing research and further assist its development as well as make studies at the request of governments. Another current study concerns the development of techniques of evaluation, with a view to providing a guide to operational agencies in the carrying out of international projects.^{1/} Among social science projects now being planned are a symposium on the meaning and criteria of economic projects in Latin America^{2/} and a comparative study of the sociological psychological and cultural factors affecting productivity.^{3/}

UNESCO's activity in the field of natural sciences "falls into three parts: the first is concerned with the development of international co-operation in natural sciences, the second with the international organization of research for the improvement of the living conditions of mankind and the third with the teaching of science and the spread of scientific knowledge and methods." Relevant projects under these headings include assistance in the organization of international scientific congresses, seminars and regional science co-operation

^{1/} Under item 6.B.

^{2/} Under item 4.

^{3/} Under item 7.A.

offices,^{1/} help to governments for the teaching of science in schools,^{2/} research for the development of the arid zone and nuclear research.^{3/}

Finally, mention should be made of the continuing activities of UNESCO in the field of education, both professional and general, which have a direct and indirect bearing on labour productivity. Most projects of this type are carried out under both the Expanded Technical Assistance Programme and the regular programme; they embrace primary, secondary, technical (in collaboration with ILO) and higher education, as well as fundamental and adult education. National and regional training and production centres in fundamental education are operated in collaboration with the United Nations, ILO, FAO and WHO.

World Health Organization

While the general activities of the World Health Organization in maintaining and improving health benefit people in all countries and contribute to improving productivity and promoting growth in all sectors of the economy, they are of particular importance to under-developed countries undergoing a process of industrialization. In such countries, as pointed out in WHO's communication to the Secretariat,^{4/} health becomes a growing problem: agricultural workers are transplanted with their families to big cities and other congested areas - an environment which, as regards communicable diseases, may be similar to, or worse than, the one they have just left; these workers may themselves be drawn from infested areas; new industries may be established in unhealthy regions; occupational diseases and accidents become more prevalent, etc.

Apart from its general activities, WHO undertakes certain specific projects having a direct bearing on the field under review. Its industrial health projects are concerned with the protection of workers' health and safety in

^{1/} Under item 5.

^{2/} Under item 7.B.

^{3/} Under item 16.

^{4/} The statement of WHO is reproduced in the Appendix.

industry.^{1/} Among current projects, an Institute and a Centre of Occupational Health are being established in Egypt and Turkey to provide services, advice, training and fellowships for local medical personnel. WHO assists the Institute of Occupational Health in Yugoslavia which recommends safety and health measures to factories. WHO is also providing staff and supplies to a Rehabilitation Centre and Physiotherapy School in Bombay, India.

Other projects concern public health services, environmental sanitation and nutrition;^{2/} WHO also participates in the inter-agency training and production centres for fundamental education in Latin American and Arab countries.^{3/}

International Bank for Reconstruction and Development

The Bank's entire activity is geared to the financing and encouragement of economic development, particularly in the under-developed countries, and its activities have direct and indirect effects on investment, production and productivity in all economic sectors, including manufacturing industries. As part of the Bank's examination of the economic prospects of its borrowers, it follows closely matters in each country relating to industrial development and the improvement of industrial productivity. The Bank is continuously engaged in appraising the factors at work which impede or promote industrial development in its member countries.

The Bank's activities in the field under consideration comprise its lending operations, general economic survey missions and technical assistance services.

As stated in its communication,^{4/} "the Bank's lending operations have an impact on industrial development and productivity, both indirectly and directly. The bulk of its lending over the years has financed improvements in the basic overhead services and facilities which are essential to progress in the

1/ Under item 6.B.

2/ Under item 4.

3/ UN/ILO/FAO/UNESCO/WHO project under item 7.B.

4/ The statement of the Bank is reproduced in the Appendix.

industrial field. In the last fiscal year, for example, two-thirds of the Bank's loans were made for power and transport projects in twelve countries.

"Loans have been made directly to manufacturing industry. In 1954/55, such loans represented the equivalent of \$37 million out of approximately the equivalent of \$410 million of total loans. The loans made to industrial enterprises are usually intended for establishment of new plants, expansion of existing ones or modernization of equipment. In addition, funds loaned to governments and public bodies have in many instances been reloaned to private industry. In other cases, the Bank's loans provided foreign exchange which private industry then purchased with local currency and used to pay for imports.

"The Bank has also sponsored and made loans to and, in some instances, has found personnel to staff development banks in some of its member countries. These institutions in turn made loans to private enterprises, particularly industrial enterprises.

"The Bank's policies in the administration of its loans also make an effective contribution to industrial productivity ... [The] Bank staff review engineering plans, cost estimates, and proposed management arrangements ... The Bank also keeps the project under scrutiny during its construction, to be sure that it is being carried out efficiently and on schedule ..."

"... The industrial sector is among the sectors of the economy studied by the Bank's general economic survey missions, which are organized at the request of its members. Because the missions' reports are addressed to governments, their comments are for the most part confined to the sphere of government action. Their evaluation of existing government policy towards private enterprise is supplemented by such recommendations for example as government assistance to private enterprise on problems of technology and management, training schools for skilled labour, or aid to new industries in the form of tax concessions or otherwise."

The specific projects listed in chapter 4, which illustrate the Bank's activities not connected with lending operations, concern a research study analysing possible types of management arrangements for projects in under-developed countries,^{1/} the setting up, jointly with UNTAA and the Government of Ceylon, of an

^{1/} Under item 7.C.

Institute of Scientific and Industrial Research and the establishment of the Industrial Credit and Investment Corporation of India.^{1/}

World Meteorological Organization

Few projects of the World Meteorological Organization are currently related to the industrialization of under-developed countries. Two projects deal respectively with meteorological elements as a source of power, and engineering and industrial activities affected by weather or climate.^{2/} Other projects, not listed in chapter 4, deal with the effect of weather and climate on materials, equipment and structures; current studies relate to transportation. Studies on artificial production of precipitation are of potential importance to industry.

WMO has recently carried out an inquiry on applied meteorology; information has been collected, inter alia, on application of meteorology in industry.^{3/} Projects of local scope are undertaken by WMO under the Expanded Programme of Technical Assistance; examples of such activities are WMO's work in the field of smoke pollution in Yugoslavia and of the utilization of wind energy in Haiti.

(3) Other United Nations Agencies

The activities of the United Nations bodies considered now differ markedly, from the standpoint of objectives and methods of work, from the activities of the organizations examined above. The United Nations Children's Fund (UNICEF), the United Nations Relief and Works Agency for Palestine Refugees (UNRWA) and the United Nations Korean Reconstruction Agency (UNKRA) have been established for specifically defined concrete tasks: to meet the needs of children, particularly in under-developed countries (General Assembly resolution 417 (V)), to carry out a programme of relief, works, re-integration and rehabilitation for Palestine refugees in the Near East (General Assembly resolutions 302 (IV), 393 (V), 513 (VI) and 818 (IX)) and to carry out a programme of relief and rehabilitation for Korea (General Assembly resolution 410 (V)). UNICEF assists government child

^{1/} Under item 6.A.

^{2/} Under item 16.

^{3/} Under item 6.A.

health and nutrition programmes by providing supplies and equipment not locally available. The other two agencies work in very close contact with local governments and enjoy a wide - though varying in degree - measure of initiative, particularly in the administration of funds, subject to governments' approval. In these respects, the activities of these agencies differ appreciably from those of most of the organizations reviewed above, which were essentially of a research and advisory nature.^{1/}

United Nations Children's Fund

In 1950, the terms of reference of UNICEF, which, up to that time, had related mainly to the provision of post-war relief for children of "countries which were the victims of aggression"^{2/} were changed to lay the emphasis on "meeting, through the provision of supplies, training and advice, emergency and long-range needs of children and their continuing needs particularly in under-developed countries".^{3/} The continuing contribution of UNICEF to the protection of maternal and child health and nutrition is, like that of FAO and WHO - which participate in many activities of UNICEF - an indirect factor in raising productivity in many under-developed countries. UNICEF's activity consists primarily in shipping supplies of foodstuffs (mainly milk), drugs (particularly penicillin), medical equipment, DDT, transport and other equipment. In recent years UNICEF has been contributing directly, though to a limited extent, to the industrialization of a number of under-developed countries, by shipping equipment for the local processing and production of milk, soy beans, fish flour, DDT, penicillin, serums and vaccines.

The nature of UNICEF's work is thus such as to preclude detailed classification in this report. Reference is invited, for details on its activities, to recent reports of the Executive Board^{4/} and to a report of the Secretary-General concerning the co-ordination aspects of its programme.^{5/}

^{1/} With the exception of certain specialized agencies such as WHO and IBRD.

^{2/} General Assembly resolution 57 (I).

^{3/} General Assembly resolution 417 (V).

^{4/} E/2717, E/ICEF/294; E/2799, E/ICEF/306; E/ICEF/305. The report of the March 1956 Executive Board session is submitted to the present session of the Council.

^{5/} E/2601. UNICEF's work is co-ordinated with that of several other United Nations agencies or units and, particularly, with WHO, FAO, UNBSA and UNTAA.

United Nations Relief and Works Agency for Palestine Refugees in the Near East

In its communication to the Secretariat,^{1/} the United Nations Relief and Works Agency pointed out that its most important efforts in the field of refugee rehabilitation are found in the agricultural sector. In the industrial field its activities are mainly directed towards the development of small and simple types of industries which make refugees self-supporting.^{2/} Industrial productivity is being promoted mainly by the establishment of modern vocational training centres for young refugees.^{3/}

In his transmittal letter to the Secretary-General, the Director of UNRWA pointed out that "... our activities thus far are not of a nature to make a direct and large-scale contribution to the improvement of industrial, as distinct from agricultural, productivity". However, "it is to be expected that after realization of the main agricultural rehabilitation projects ... the Agency will also contribute to the establishment of processing plants, which will be needed in those newly developed areas".

United Nations Korean Reconstruction Agency

The United Nations Korean Reconstruction Agency was established by the General Assembly (resolution 410 (V)), as "a special authority with broad powers to plan and supervise rehabilitation and relief" in war-devastated Korea. Its activities cover the whole range of the economy of that country. As mentioned in a communication of the Agent General to the Secretariat, UNKRA "is, to date, the largest single United Nations undertaking aimed specifically at the reconstruction and rehabilitation of a nation's economy". Industrial development and the improvement of industrial productivity constitute a substantial part of this effort. UNKRA's "projects range from large to small, and from simple undertakings to vast and complex activities. They have been launched in every province of the Republic of Korea and have been located at 3,833 sites."^{4/}

^{1/} The statement of UNRWA is reproduced in the Appendix.

^{2/} See UNRWA project under item 15.

^{3/} See UNRWA project under item 7.B.

^{4/} Report of the Agent General of UNKRA for the period 1 September 1954 to 30 June 1955, New York, 1955, page 2.

The operational character and the local scope of these activities preclude the listing of UNKRA's projects in chapter 4.

The following excerpt from UNKRA's statement to the Secretariat^{1/} gives a brief summary of relevant activities:

"UNKRA's efforts in the industrial field have been largely concentrated ... on rehabilitation and development of textile, cement, paper and flat glass production. ... Projects to increase salt production, provide auto repair facilities, fish canneries, make available loans to small businesses, etc., also have been implemented. An extensive programme has been undertaken to increase mineral production, ferrous, non-ferrous, and fuel (coal and peat), and projects were established to initiate rehabilitation and expansion of the South Korean power system.

"Definite efforts have been made to improve industrial and mining productivity. Vocational education facilities have been rehabilitated and expanded in strategic localities; a metal mine school has been established to provide training in metal mining techniques; a coal mine technical assistance team has been furnished; and a team of vocational training instructors is under recruitment. Additionally, technical assistance of various sorts has been and continues to be rendered by the UNKRA staff."

^{1/} Excerpts from UNKRA's statement are reproduced in the Appendix. For more detailed information, reference is invited to recent reports of the Agent General, to UNKRA monthly Project Reports and to An Economic Programme for Korean Reconstruction, March 1954, prepared for UNKRA by a United States firm of economic consultants.

Chapter 3

COMPARATIVE ANALYSIS OF THE ACTIVITIES OF THE ORGANIZATIONS

In this chapter, an attempt is made to map out the areas of work of the secretariats of the various organizations. This is done mainly with respect to projects which are now being carried out, including the general continuing activities which may not be listed in chapter 4;^{1/} some reference is also made, however, to areas which are of interest to the secretariats, but where no projects are currently undertaken. For reasons of convenience, the classification adopted in chapter 4 is used in the comparison. The discussion first compares, in a general way, the nature and scope of the activities of the secretariats and outlines the forms of co-operation between them and the system of co-ordination of their work; it then discusses the distribution of the current work and the co-operation in the various fields.

(a) Nature and scope of activities; forms of co-operation and system of co-ordination

The nature of the work may be examined in terms of methods and types of projects. The methods fall roughly into three main categories. First, the activities of the Secretariats of the United Nations and the specialized agencies take the form of collecting, evaluating and disseminating information, carrying out research and rendering advisory services to governments; these advisory services are those extended under the Expanded^{2/} and Regular^{3/} Programmes of technical assistance and other services rendered in connexion with the implementation of certain projects.^{4/} Second, some specialized agencies,

^{1/} It may be pointed out, in this connexion, that listing or non-listing of projects results from the definitions of the field of the inquiry adopted in chapter 1; there are no substantive differences between listed and unlisted projects.

^{2/} By the United Nations and specialized agencies.

^{3/} By UNTAA and specialized agencies.

^{4/} By regional commissions. See chapter 5, paragraph 1 "Planning and programming", footnote 2.

in addition to the preceding, extend direct assistance to governments in the form of loans and other financial assistance, and/or services, principally in the fields of health, welfare and education. Third, the activity of the other organizations consists, in the case of UNICEF in providing supplies, in that of UNRWA relief and rehabilitation and, in the case of UNKRA, reconstruction.

The main differences in the type of work and scope of projects are that the Department of Economic and Social Affairs at Headquarters usually deals with economic and social questions of global scope, while the commission's secretariats generally deal with economic and technological problems of a more limited regional or national scope, often in the form of direct assistance to governments. The secretariats of the specialized agencies deal with economic, financial, social, medical, educational, technical, scientific, etc., problems in projects which vary from international to national in scope.

The co-operation between secretariats usually takes the form of consultations, exchange of material, direct contribution of papers and reports, seconding of specialized personnel for specific joint projects and establishment of joint working parties.

The work of the organizations is also co-ordinated by various bodies and by various means. The work of the Department of Economic and Social Affairs at Headquarters and in the regional economic commissions is co-ordinated, at the inter-governmental level, by the Economic and Social Council and, at the Secretariat level, by the Secretary-General acting through the Under-Secretary for Economic and Social Affairs. The work of the United Nations and of the specialized agencies is co-ordinated, at the inter-governmental level, by the Council and by the General Assembly for matters referred to it by the Council^{1/} and, at the inter-secretariat level, by the Administrative Committee on Co-ordination (ACC) and its subsidiary bodies. In matters relating to the Expanded Programme of Technical Assistance, the supervision of the programme is, at the inter-governmental level, the responsibility of the Assembly, the Council and the Technical Assistance Committee (TAC); co-ordination of the programme

^{1/} In particular for administrative and budgetary matters.

is the responsibility of the Technical Assistance Board (TAB); the TAB is responsible for co-ordinating consultations between governments and participating organizations, and for establishing country targets and assisting in the planning of the over-all annual programme for submission to the TAC.^{1/} It must be added that co-ordination is also maintained informally by consultations, correspondence and visits between various units and officers of the secretariats.

(b) Distribution of work

The following table presents, in a schematic way, a picture of the work distribution of the secretariats of the organizations under review, along the lines of the classification adopted in chapter 4. It indicates for each organization the areas: (1) where continuing and ad hoc projects, both listed and unlisted, are currently undertaken by the secretariat; and (2) which are of general interest to the organization but where no projects are currently being undertaken.^{2/} It also attempts to map out roughly the spheres of interests of the organizations: a dash (-) indicates that the organization has no basic interest in the field per se, although the latter may be partly covered by a study which, because of its main objective, has been classified under another item. As an example, work in connexion with IBERD loans, listed under items 2 and 3, may relate to a variety of industries.

The main purpose of this table is to serve as a guide in the comparison of the activities of the secretariats both with reference to the projects listed in chapter 4 and the unlisted general activities. In the comparison, the nature and scope of projects and the co-operation between secretariats are not discussed in detail.

Only the United Nations Secretariat has a direct interest in each of the areas listed in the table. The ILO Secretariat and ILO's industrial committees are interested in most of these areas, as work relating to labour legislation, labour productivity, etc., in various sectors - which is ILO's primary concern - implies the study of related economic and technological problems. Most of these areas are also of interest - though on a narrow geographical basis - to UNKRA.

1/ See resolution 542 B (XVIII). The ACC has requested the TAB to prepare a review of the experience gained under the Expanded Programme and to consider plans for the future development of the programme.

2/ Deferred or planned work relating to these areas, which may appear in certain programmes, is thus not indicated in this table.

Area	UN Secretariat				Specialized Agencies					Other Agencies			
	HQ	ECAFE	ECE	ECLA	ILO	FAO	UNESCO	WHO	IBRD	WMO	UNICEF	UNRWA	UNKRA

I. ECONOMIC DEVELOPMENT

1. Planning and programming	P*	P*	P*	P*	P*	P*	P*	P*	P*	P*	P*	P*	P*
2. Financial and fiscal aspects	P*	P*	I	P*	-	P*	-	-	P	-	-	P	P
3. Trade, foreign investment	P*	P*	I	P*	-	-	-	-	P	-	-	-	P
4. Manpower, social aspects	P*	P*	I	P*	P*	P*	P*	P*	-	-	P	P	P
5. Other aspects	P*	P*	I	P*	-	-	P*	-	-	-	-	-	-

II. INDUSTRIAL DEVELOPMENT

6. Industrial development in general													
A. Economic and technological aspects	P*	P*	P	P	P	P	-	-	P	P	P	P	P
B. Social aspects	I	I	I	I	P*	P*	P*	P*	-	-	P	-	-
7. Industrial productivity													
A. Economic, social and technological aspects	I	P*	I	P*	P*	P*	P*	-	P*	-	-	-	P
B. Vocational training	I	P*	I	P*	P*	P*	P*	P*	P	-	-	P*	P
C. Management aspects	I	P*	I	I	P*	P*	P*	-	P*	-	-	-	-
8. Mining	P*	P*	P*	P*	P*	-	-	-	-	-	-	-	P
9. Iron and steel	I	P*	P*	P*	P*	-	-	-	-	-	-	-	P
10. Engineering	I	I	P*	P*	P*	-	-	-	-	-	-	-	P
11. Chemical industries	I	I	I	P*	P*	-	-	-	-	-	-	-	P
12. Textile industries	I	I	I	I	P*	P*	-	-	-	-	-	-	P
13. Food processing	I	I	I	I	-	P*	-	-	-	-	P	-	P
14. Other manufacturing	I	I	I	P*	-	P*	-	-	-	-	-	-	P
15. Cottage, small-scale industries	P*	P*	I	I	P*	P*	-	-	-	-	-	P*	P
16. Power, water resources	P*	P*	P*	P*	-	-	P*	-	-	P*	-	-	P

III. RELATED AREAS

17. Agriculture, forestry	P*	P*	P*	P*	P*	P*	-	-	-	-	-	P	P
18. Construction and housing	P*	P*	P*	I	P*	-	P*	-	-	-	-	P	P
19. Transport	P*	P*	P*	P*	P*	-	-	-	-	-	-	-	P

P* Area where listed continuing and ad hoc projects are currently undertaken.

P Area where unlisted continuing activities are carried out.

I Area of interest to the organization concerned, but where no projects are currently undertaken.

- Area of no basic interest to the organization concerned.

Two general areas are of common interest to all organizations: all of them participate in one form or another in plans and programmes of development, and carry out activities which have a bearing on labour productivity.

In the first area, all organizations assist, in varying degree and in specific fields, through research, advice and technical assistance, in the establishment or implementation of governmental development plans and programmes.^{1/}

In the second area, a contribution to labour productivity and, in particular, to productivity in industry, results from the work of the secretariats of all organizations, whether as a by-product of their general activities or as a result of projects undertaken under the expanded or regular programmes of technical assistance. Promotion of productivity by study of techniques and methods, training, etc., is of particular interest to ILO. Interest in these matters is also shown by an increasing number of organizations. Most of the secretariats of the organizations under review are engaged in various projects in the field of vocational and technical training, either in co-operation with ILO or other agencies, or individually. One project, in particular, is carried out jointly by the secretariats of the United Nations and of most of the specialized agencies reviewed here.^{2/} Close co-operation is maintained between secretariats, governments and UNTAA in other projects of this type. As regards techniques of improving productivity, current projects are carried out by the secretariats of ILO, ECAFE and FAO. While ILO is studying the matter from an over-all point of view, the secretariats of ECAFE and FAO are currently concentrating on standardization.^{3/} Management aspects of the problem are dealt with by ECAFE, ILO, FAO, UNESCO and IBRD.^{4/}

^{1/} In the particular case of UNKRA, an over-all programme of development has been drawn up to be implemented by this agency, in collaboration with the Government of the Republic of Korea.

^{2/} Training and production centres for fundamental education, listed under item 7.B.

^{3/} See projects under item 7.A.

^{4/} See projects under item 7.C.

As stated above, all other fields are of general interest to the Secretariat of the United Nations and most of them to the Secretariat of ILO.^{1/} Certain areas are also of interest to one or several other organizations. The areas of common interest will be discussed first. The areas of specific interest to the secretariats of the United Nations and ILO will then be briefly referred to.

The secretariats of ILO, UNESCO and WHO are interested in the manpower, social and related aspects of economic and, in particular, industrial development,^{2/} and ILO and UNESCO are carrying out projects in the related field of housing.^{3/} UNICEF's child health and nutrition activity and UNRWA's relief and rehabilitation work are also of relevance in these respects. In these areas, certain fields are of more specific interest to the secretariats of certain organizations: demographic aspects are studied by UNBSA; labour standards and legislation, employment, placement, migration, social security and labour statistics are within the province of ILO; medical projects are carried out by WHO. Even in these fields, inter-secretariat co-operation is taking place: for example, UNBSA, ECAFE, ECLA, ILO, FAO and UNESCO co-operate in various population projects and ILO, FAO, WHO and UNICEF work together in matters relating to health. In the field of housing, UNBSA undertakes general studies and participates in the work carried out by ECAFE and ECLA. The 1956 seminar on post-war Asian urbanization, which will, inter alia, discuss housing, is being prepared as a joint project of UNBSA, ECAFE, UNTAA and UNESCO. Governments, inter-governmental and non-governmental organizations also participate in certain projects in this field.

The study of the interrelationship of social, economic and other factors is currently divided between the secretariats of the United Nations, ILO and UNESCO. The relevant UNBSA, ECAFE and ECLA studies^{4/} are mainly concerned with

1/ And, on a different plane, of UNKRA.

2/ Items 4 and 6.B.

3/ Item 18.

4/ Under item 4.

the relationship between population growth and economic development; those of ILO also deal with this relationship, primarily from the point of view of manpower requirements. The UNESCO projects relate on the one hand to evaluation problems connected with economic development^{1/} and, on the other hand, to studies of the social impact of industrialization.^{2/} Most of UNESCO's projects are carried out in collaboration with various universities, sociological centres, etc.

Other areas of common interest to the secretariats of the United Nations and specialized and other agencies comprise finance and trade^{3/} (IBRD), agriculture, forestry, food processing and textiles^{4/} (FAO), cottage industries^{5/} (ILO, FAO, UNRWA), power^{6/} (UNESCO, WMO) and construction^{7/} (ILO, UNESCO).

IBRD's general activity, which is essentially operational, has been discussed in chapter 2. In the field of agriculture and related matters, the activities of the United Nations Secretariat are carried out jointly with FAO. All the basic fact-finding work is undertaken by the secretariat of that agency; current research is distributed among the secretariats of the commissions and FAO, along the lines of their main interests.

The development of cottage and small-scale industries is of interest to several organizations, as it often is an expedient - though limited - way of furthering industrialization. It is towards this development, in particular, that the main activities of UNRWA in the industrial field are directed at the present time. The ECAFE, ILO and FAO secretariats are also carrying out research and extending technical assistance in this area. Projects dealing with community development are currently undertaken by UNBSA in co-operation

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- ^{1/} Under item 4.
^{2/} Under item 6.B.
^{3/} Items 2 and 3.
^{4/} Items 17, 13 and 12
^{5/} Item 15.
^{6/} Item 16.
^{7/} Item 18.

with governments, regional commissions and specialized agencies. Projects concerning co-operatives are within the purview of ILO and UNBSA - in the case of the latter, mainly with respect to housing.

Specific projects concerning power are currently undertaken by the secretariats of the United Nations, UNESCO and WMO. The United Nations Secretariat is studying both unconventional sources of energy, while the secretariats of the two agencies are studying the latter sources.

The remaining areas are of interest to the secretariats of the United Nations and of ILO. These areas comprise mining, iron and steel, engineering, chemical industries, other manufacturing, construction and transport.^{1/} As stated previously, other secretariats may be carrying out projects in these areas, which, because of their principal objective, are classified under other items. Most of the studies of the United Nations Secretariat are, at this time, carried out by the secretariats of the regional economic commissions, and relate to various economic and technological problems. Economic and technological studies connected with labour and productivity problems are also carried out in these sectors by ILO's industrial committees. Reference is invited to the part of chapter 2 dealing with the regional commissions for a discussion of their work in these areas and to ILO's statement in the Appendix.

^{1/} Items 8, 9, 10, 11, 14, 18 and 19.

Chapter 4

CLASSIFICATION OF THE PROJECTS

This Chapter contains the list, in tabular form, of all the projects currently being undertaken under the aegis of the United Nations, including the specialized agencies, in matters relating to industrial development and the improvement of industrial productivity.

The field covered, as regards topics, nature of studies, geographical scope, methods of work, stage of work and time for initiation and completion has been defined in chapter 1. It has been indicated, in chapters 2 and 3, that many important activities of certain organizations do not lend themselves to detailed classification in this report; many such activities of the secretariats of ILO, FAO, WHO, IBRD, UNICEF, UNRWA and UNKRA are described in chapter 2 and in the statements reproduced in the Appendix. Also, projects of local interest undertaken under expended or regular programmes of technical assistance are not listed here; reference is invited to the annual reports and other documents of UNTAA, TAB and the participating agencies where detailed information is to be found.

The projects are classified as follows:

I. PROJECTS RELATING TO ECONOMIC DEVELOPMENT IN GENERAL

1. Planning and programming
2. Financial and fiscal aspects
3. Trade, foreign investments
4. Manpower, social and related aspects
5. Other aspects

II. PROJECTS RELATING TO INDUSTRIAL DEVELOPMENT

6. Industrial development
 - A. Economic and technological aspects
 - B. Social and related aspects
7. Industrial productivity
 - A. Economic, social and technological aspects
 - B. Vocational and technical training
 - C. Management aspects
8. Mineral resources and mining
9. Iron and steel industries
10. Engineering industries
11. Chemical industries

12. Textile industries
13. Food processing industries
14. Other manufacturing industries
15. Cottage, small-scale industries, community development and co-operatives
16. Power, water resources

III. OTHER PROJECTS PERTAINING TO THE SUBJECT

17. Agriculture, forestry and fisheries
18. Construction and housing
19. Transport

Under each subject item, the projects are listed by units or organizations.

The following abbreviations have been used to designate the units, organizations, agencies, etc., referred to in the tables:

1. United Nations Secretariat

Department of Economic and Social Affairs

(a) Headquarters

Bureau of Economic Affairs
Statistical Office
Transport and Communications Division
Bureau of Social Affairs

UNBEA
UNSTAT
UNTC
UNBSA^{1/}

(b) Regional Economic Commissions

Economic Commission for Asia and the Far East
Economic Commission for Europe
Economic Commission for Latin America

ECAFE
ECE
ECLA

Department of Trusteeship and Information from
Non-Self-Governing Territories

UNITD

United Nations Technical Assistance Administration

UNTAA

2. Specialized Agencies of the United Nations

International Labour Organisation
Food and Agriculture Organization
United Nations Educational, Scientific and Cultural
Organization
World Health Organization
International Bank for Reconstruction and Development
International Monetary Fund
International Civil Aviation Organization
World Meteorological Organization

ILO
FAO
UNESCO
WHO
IBRD
IMF
ICAO
WMO

3. Technical Assistance Board

TAB

^{1/} Projects on work programme determined by Population Commission: UNBSA-PC
Projects on work programme determined by Social Commission: UNBSA-SC.

4. Other United Nations Agencies

United Nations Children's Fund	UNICEF
United Nations Relief and Works Agency for Palestine Refugees in the Near East	UNRWA
United Nations Korean Reconstruction Agency	UNKRA

5. Other Agencies

European Organization for Nuclear Research	EONR
International Organization for Standardization	IOS
Non-Governmental Organizations	NGO's
Organization of American States	OAS

The following abbreviations have been used in the column "Nature of work":

Dissemination and exchange of information	Inf.
Statistical studies	Stat.
Economic studies	Econ.
Technical studies	Tech.
Social studies	Soc.
Medical studies	Med.
Working party	Party
Seminars	Sem.
Meetings of experts	Meet.
Training centres	Train.
Schools	Sch.
Institutes	Inst.
Advisory services	Adv.
Visits of specialists	Vis.
Technical assistance	TA
Pilot plants or projects	Pilot

The column "Priority rating" shows the categories established by the Economic and Social Council (resolution 451 (XIV)): ^{1/}

1. Continuing projects and activities of high priority;
2. Ad hoc projects of high priority (non-recurrent);
3. Other projects (temporarily or indefinitely deferred).

No relative priorities are assigned here to projects within groups 1 and 2, nor as between group 1 and group 2.

The following symbols have been used:

- Not pertinent;
- ... Not available.

^{1/} Only the United Nations Secretariat presents its projects with indication of priorities of this type. The priority ratings indicated for the projects of the secretariats of other organizations have been introduced by the Bureau of Economic Affairs.

SOURCE:

United Nations Secretariat

Headquarters

UNBEA: "Tentative Work Programme of the Bureau of Economic Affairs" (working document dated 3 June 1955), and additional information.

UNSTAT, UNTC, UNTD: Information received from these units.

UNBSA-PCP: "Population Commission Report to the ECOSOC on the Eighth Session of the Commission" (E/2707, E/CN.9/126).

UNBSA-SC: "Report of the Tenth Session of the Social Commission" (E/2758, E/CN.5/318).

Regional Economic Commissions

ECAFE: "Annual Report, 19 February 1954 - 7 April 1955" (E/2712, E/CN.11/407).

ECE: "Annual Report, 26 March 1954 - 30 March 1955" (E/2706, E/ECE/203).

ECLA: "Annual Report, 10 February 1954 - 10 May 1955" (E/2756, E/CN.12/AC.26/8/Rev.1); "Report of the Sixth Session of the Economic Commission for Latin America" (E/2796/Rev.1, E/CN.12/387/Rev.1).

Specialized Agencies

ILO: "Ninth Report of the International Labour Organisation to the United Nations", Geneva, 1955; and information received from this agency.

FAO: "The Director General's Programme of Work and Budget for 1955" (CL 20/2) 1956 and 1957 (C 55/5), and information received from this agency.

UNESCO, WHO, IBRD, WMO: Information received from these agencies.

Other United Nations Agencies

UNICEF: E/2717, E/ICEF/294; E/2799, E/ICEF/306; E/ICEF/305.

UNRWA, UNKRA: Information received from these agencies.

LIST OF PROJECTS

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
I. PROJECTS RELATING TO ECONOMIC DEVELOPMENT IN GENERAL					
1. Planning and programming					
UNBEA B.1(a) Studies of techniques of programming. Studies of techniques of programming and their application in specific countries, including Burma, India, Italy and representative countries in other areas (Africa, Latin America and the Middle East).	Econ.	Regional Com-missions and Specialized Agencies	1	Preliminary paper: Jan. 1956	-
UNSTAT A minimum programme for economic and social statistics. Preliminary outline for a minimum programme on economic and social statistics - needs, content and priorities - that governments require in order to plan and assess economic development.	Stat.	Governments	2	In progress	Prelimin-ary out-line: April 1956
ECAFE 02-01 Economic development and planning (in co-ordination with projects 11-02 and 31-01):					
(a) An extensive and analytical survey of economic development in the countries of the region;	Econ. Adv.	Governments	1	In progress	-
(b) Development, in the course of the country studies, of a body of techniques of programming economic development adapted to the conditions of the countries in the ECAFE region;	Econ. Adv.	-	1	In progress	-
(c) Studies of basic economic development problems (including problems of population and man-power, natural resources, technology and productivity, capital formation, financing of development, institutional factors and essential statistical indicators) and analysis of basic development policies with special reference to the ECAFE region;	Econ.	-	1	In progress	-
(d) Studies of methods of projecting economic trends of countries in the region with a view to assisting the Governments in the preparation of future development programmes or the revision of existing ones;	Econ. Adv.	-	1	In progress	-
(e) Working Party on Economic Development and Planning to consider selected aspects of (b), (c) and (d) above.	Econ. Party	Governments, Specialized Agencies	1	First meet-ing: Nov. 1955	-
ECAFE 02-05 Role of expanded self-help measures in economic development. Analysis of the actual and potential contribution to capital formation and to economic development generally of community development and other similar measures of co-operation.	Econ.	UNBSA	2	Not yet initiated	1956
ECE 01.2.1 Development problems of southern Europe. Experts nominated by the Governments of Greece, Italy, Turkey and Yugoslavia explore possibilities of co-operation in promoting their economic develop-ment. Some activities of the Group of experts already begin to go beyond planning and programming into the action phase. Some of these are listed as follows: ECE 01.2.1(a), (b) and (c) under "17. Agriculture, forestry and fisheries"; ECE 01.2.1(d) under "19. Transport and communi-cations".	Meet. Econ. Tech. Adv.	Government experts, ILO	2	Advanced	Report to 11th ses-sion ECE (April 1956)
ECLA 3 General problems of economic development and the technique of programming.					
(a) Analyses and projections of economic development (i) Introduction to the technique of programming (ii) Economic development of Brazil	Econ. Econ.	- Banco de Des-envolvimento Economico do Brasil	1	Publ. 1955 Mimeo ver-sion; to be revised for publication	- 1956

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
1. <u>Planning and programming</u> (continued)					
(iii) Economic development of Colombia	Econ. Tech.	Government agencies	1	id.	1956
(iv) Economic development of Argentina	id.	UNTAA	1	In progress	1956
(v) Economic development of Bolivia	id.	UNTAA	1	In progress	Feb. 1957
(vi) Economic development of Mexico	id.	-	1	Work to start in Dec. 1955	First report 1957
The country studies apply the method of analysis and projection of economic growth as presented in the technique of programming study.					

(d) Study of organization and administrative procedures for planning and execution of economic development programmes	Econ.	UNTAA	1	To start in 1956	...
ECLA 4 Economic integration and reciprocity in Central America. Work is proceeding in accordance with the resolutions of the Commission and the Central American Economic Co-operation Committee. Its primary purposes are to promote industrialization and agricultural development through the broadening of markets. Background studies are in progress on industrial and agricultural topics, transport problems, inter-Central American trade and customs, statistical co-ordination, financing of development and electric power.	Econ.	Governments, UNTAA and Spec. Agencies	1	Continuing project	-

(b) Research and training institute: (i) Advanced School of Public Administration, Costa Rica. Special courses on subjects to assist governments in the implementation of reports of experts participating in the economic integration programme.	Train. Tech.	UNTAA and Spec. Agencies	1	Continuing activity	...
(ii) Central American Institute for Research in Industry, Guatemala.	Train. Tech.	UNTAA	1	To be inaugurated in 1956	...
ECLA 5 Training programme for economists. Continuation of the training programme organized for selected groups of Latin American economists to work with ECLA economists on theoretical and practical problems of economic development and the technique of programming.	Train. Econ.	UNTAA	1	Continuing project	...
ECLA 7 Expert conference on problems of economic growth and the technique of programming. This conference will bring together a group of Latin American economists who are directly concerned with problems of economic development in their respective countries. A small number of economists from outside the region will also be invited to participate. The main subject will be the technique of programming economic development and the role of monetary and fiscal policies.	Meet. Party	UNTAA	2	Planned	1957
ECLA 10 Technical research and training in Latin America. The relevant resolutions call for the continuation of a study made in Chile for a group of selected Latin American countries.	Train. Tech.	...	3	Deferred	...
FAO Ec. 3.2 Agricultural development planning in individual countries in relation to general economic and, in particular, industrial development: e.g., Malta, Greece (1955).	Econ.	Governments	1	Continuing activity	-
"Agriculture and the World Economy" Uses of agricultural surpluses to finance economic development in under-developed countries.	Econ.	-	2	In press	-
Programme of training in the formulation and appraisal of agricultural development projects with regard to the balanced development of agriculture and industry.	Econ.	-	2	Published 1955	-
	Train.	Governments	1	Continuing activity	-

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
1. Planning and programming (continued)					
ILO, UNESCO, WHO, IBRD, WHO, UNICEF, UNRWA, UNKRA. The secretariats of these agencies contribute, in fields determined by the respective terms of reference, to planning and programming of economic development of under-developed countries.	-	Governments and various agencies	1	Continuing activity	
2. Financial and fiscal aspects					
UNBEA E.6 Financing of economic development. Assistance to Mr. Scheyven and the Advisory Committee on SUNFED. Preparation of a further report on the Special United Nations Fund for Economic Development, including methods of relating its operations to the development plans of countries which might receive assistance from the fund. Assistance to the <u>ad hoc</u> General Assembly Committee on SUNFED	Econ.	Mr. Scheyven and Advisory Committee on SUNFED, regional commissions	2	Report submitted to GA 10th session	Report to GA, 11th session
	Econ.	-	2	In progress	May 1956
UNBEA E.6 Taxation of private foreign investment. Effects of tax measures in capital-exporting and capital-importing countries on investment of private foreign capital in under-developed countries.	Econ.	Harvard University	2	In progress	1956
UNBEA E.7 Tax incentives to private enterprise. Study of fiscal incentives applicable in under-developed countries to promote domestic and foreign private investment, with particular reference to Latin American countries.	Econ.	ECLA	2	In progress	1956
UNBEA E.14 Development of securities markets in under-developed countries. Study of flow of savings generated by the development process in selected under-developed countries, with particular emphasis on ways in which this flow of savings may assist in the development of securities markets in these countries.	Econ.	-	2	In progress	1957
LCAFE 02-02 Financial aspects of economic development. Studies of financial aspects of economic development, including domestic and foreign availability of capital, problems of inflation and deflation, tax structure, fiscal and monetary policies, establishment and development of capital markets, etc.	Econ. Party Adv.	IMF IBRD	1	Further studies to be undertaken in 1956	-
ECLA 3..... (c) Study of monetary and fiscal policies for planning economic development. Analyses of government receipts and expenditures; special analysis of taxation and other sources of revenue; and the influence of government credit, fiscal policies and exchange and trade controls upon consumption and investment in the various sectors of the economy.	Econ.	-	1	In progress	1957
ECLA 8 Preliminary survey of organization and structure of capital markets in Latin America. FAO Ec. 3.4 and 4.3 Uses of agricultural surpluses to finance economic development (see FAO Ec. 3.2 under item 1).	Econ.	-	2	High priority recommended	1957
3. Trade, foreign investments					
UNBEA A.2 International flow of private capital for economic development. Analysis of trends in the international flow of private capital, with particular reference to under-developed countries, including review of governmental policies affecting private international capital movements.	Econ.	Regional commissions, as required	1	In progress	1957

Project	Nature of work	In co-operation with	Pri- ority rating	Stage of work	Time for completion
3. Trade, foreign investments (continued)					
ECAFE 02-04 Economic and legal aspects of foreign investments:					
(a) Revision of earlier secretariat study, with an introductory analysis;	Econ.	-	2	In progress	1956
(b) Studies of actual foreign capital participation in combination with domestic private capital, and Government or public capital.	Econ.	-	2	Not yet initiated	1956-1957
ECAFE 02-06 Census of foreign investments. Compilation and dissemination of information to be supplied by Governments on foreign investments in the countries of the region.	Inf.	Governments	3	Deferred	Two to three years
ECAFE 37-04 Trade in selected commodities, including studies of trade in capital goods.	Econ.	-	1	In progress	1956
ECAFE 37-10 Standardization (see under "7.A Industrial productivity: Economic and technological aspects").					
ECLA 12 Influence of taxation on private capital exports. This study is being continued under General Assembly resolution 825 (IX) by the Department of Economic and Social Affairs. (See UNBSA E.6 under item 2.)					
ECLA 39. Studies of the terms of trade and their influence on the rate of economic development.	Econ.	-	2	In progress	1956
4. Manpower, social and related aspects					
UNBSA-PC 1(a) Preparation of population estimates and forecasts and evaluation of national population statistics.	Stat. Soc.	Governments	1	Continuing project	-
UNBSA-PC 1(d) Regional and other demographic analyses required by the various offices of the United Nations and specialized agencies.	Soc.	-	1	Continuing project	-
UNBSA-PC 2(a) World Population Conference Publication of proceedings.	Econ. Soc.	-	2	Completed: Dec. 1955	-
UNBSA-PC 2(b) Study of interrelationships of demographic, economic and social factors, in Mysore State, India, on the basis of a field survey.	Econ. Tech. Soc.	Government of India UNTAA	2	In progress	June 1956
UNBSA-PC 2(j) Demographic aspects of labour supply, employment and unemployment.	Econ. Soc.	ILO	1	In progress	End 1956
UNBSA-PC 2(l) Study of relationships between population and economic and social factors in India on the basis of existing data.	Econ. Soc.	Government of India, ECAFE	2	Under consideration	...
UNBSA-PC 3 Demographic aspects of the problems of economic and social development of under-developed countries. To survey existing information and needs for additional information relevant to these aspects and to prepare blueprints for studies designed to obtain such information in particular countries or regions, paying special attention to information on the following subjects that is needed for policy-making and planning of practical action:	Econ. Tech. Soc.	Governments, regional commissions	1	Continuing project	-
.....					
(b) Size and composition of the labour force and its relation to the trends of population;					
(c) Relation of population to land resources and needs for the transfer of agricultural workers to industrial employment or to other agricultural areas;					
(d) Internal and international migration and their influence upon the size, composition and geographical distribution of the population. (see also project 2 (l) above).					

Project	Nature of work	In co-operation with	Pri- ority rating	Stage of work	Time for completion
4. <u>Manpower, social and related aspects</u> (continued)					
UNBSA-PC 4 Pilot studies of topics listed under project 3 above. A small number to be carried out in various under-developed countries or groups of countries, will be arranged. (See also project 2 (b) above).	Tech. Soc. Econ.	Governments	2	Under con- sideration	...
UNBSA-PC Population Seminar in Asia and the Far East.	Econ. Tech. Sem. Soc.	ECAFE, UNTAA, Spec. Agen- cies, Inter- national Social Sci- ence Council	2	Took place in Nov.-Dec. 1955	-
UNBSA-PC Population Seminar in Latin America.	Econ. Tech. Sem. Soc.	ECLA, UNTAA, Internation- al Social Science Council	2	Took place in Dec. 1955	-
UNBSA-SC 5 International definition and measurement of standards and levels of living. (a) Planning and co-ordination of further work on levels of living, including the development of components and additional indicators for measurement of non-material and other social and technical aspects of levels of living. (b) Participation in a meeting of experts organized by ILS in 1955. (c) Dissemination of information on levels of living and changes therein through future Reports on the World Social Situation and appropriate United Nations statistical reports.	Econ. Stat. Tech. Soc.	ILO, UNESCO, FAO, WHO	1	Continuing activity	-
UNBSA-SC Urbanization. A part of the second Report on the World Social Situation will be devoted to urbanization.	Soc.	ILO, FAO, UNESCO, WHO	1	In progress	Dec. 1956
UNBSA-SC 6 Seminar on Post-War Asian Urbanization. Agreement has been reached with respect to the holding of a joint UNESCO/United Nations Seminar, in collaboration with the other specialized agencies concerned, in Bangkok in 1956. Background papers on the social effects of urbanization will be prepared for this meeting.	Econ. Tech.	ECAFE, UNTAA, ILO UNESCO	2	In prepara- tion	1956
UNBSA-SC 22 Organization and administration of social welfare services. (a) Analysis of available information regarding new developments concerning problems and methods of organizing, co-ordinating and administering comprehensive social service programmes. (b) Study of the special problems encountered in administering grants-in-aid to promote social welfare programmes.	Soc. Soc.	- -	1 2	In progress Planned	Continuing ...
UNBSA-SC 23 Strengthening of family life. ***** (d) Preparation of a report on the social effects of urbanization upon family life and needs for social services, to deal primarily with Asia, for consideration at the Seminar on Post-War Asian Urbanization to be held in Bangkok in 1956 (see project UNBSA-SC 6 above).	Soc.	-	1	In progress	July 1956

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
4. <u>Manpower, social and related aspects (continued)</u>					
UNBSA-SC 34 Prevention of types of criminality resulting from social changes and accompanying economic development in less developed countries.					
(a) Preparation of a basis for technical assistance to less developed countries as a practical guide to the rational planning of social policy concerned with the problem of crime in those countries.	Soc.	-	1	In progress	Continuing project
(b) Preliminary study of particular problems with respect to criminality which have arisen in Asian countries in recent years, for consideration at the Seminar on Post-War Asian Urbanization which is to be held in Bangkok in 1956.	Soc.	-	1	In progress	July 1956
ECAFE Q2-Q3 Relationship between population growth and economic development. Analysis of the interrelationship between population growth and economic development in Asia.	Econ.	UNBSA	2	Preparatory work started in 1955	Three years
Seminar with emphasis on organisation of research and training of personnel in the field (see UNBSA-PC population seminar projects above).	Sem.	UNTAA UNBSA	2	Convened in Dec. 1955	1955
Seminar on post-war Asian urbanisation. (See also UNESCO projects under "4B. Industrial development: Social and related aspects" and "18. Construction and housing", and UNBSA-SC and SC 6 above and ILO project below.)	Sem. Econ. Tech. Sci.	UNESCO UNBSA UNTAA ILO	2	To be convened in 1956	1956
ECLA 3 General problems of economic development.					
(e) Study of social factors affecting economic development. Attention will be given to the practical aspects of this problem.	Econ. Soc.	-	1	In progress	First report Feb. 1957
(f) Study of population growth and manpower requirements in relation to economic development.	Econ.	-	1	Preliminary report 1956	...
ECLA 11 Relation of migration to economic development.	Econ.	Various international agencies	3	Deferred	-
ILO Protection of migrant workers within or coming from under-developed countries. A draft recommendation on this subject deals with: protection while traveling, protection during employment, stabilization of migrant workers and measures to discourage migratory movements not considered desirable in the interest of the workers.	Soc.	-	1	Studied at the 27th Session of ILO Conference, 1954. To be given a second reading at 38th Session of the Conference, 1955.	-
ILO Social conditions of indigenous populations of independent countries. The problem of the living and working conditions of the indigenous populations of independent countries has been placed on the agenda of the 39th Session of the International Labour Conference with a view to the adoption of an international instrument. Various studies are in preparation.	Soc.	UNBSA FAO UNESCO	1	1956	...
ILO Industrial committees. Labour questions in various industries are regularly examined by the tripartite industrial committees of the ILO (see also under item 7.A. "Industrial productivity, Economic, Social and Technological aspects").	Soc.	-	1	Continuing activity	-
ILO Contract labour in the petroleum industry.	Soc.	-	2	Studied by Petroleum Committee, April-May 1955	-

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
4. Manpower, social and related aspects (continued)					
ILO Social security in non-metropolitan territories. Workmen's compensation and other social security measures will be considered by the Committee of Experts on Social Policy in Non-Metropolitan Territories at its Fourth Session. The Committee will also discuss the question of migrant workers in under-developed countries, industrial relations, wage systems and policies.	Meet. Soc.	...	1	End of 1955	-
ILO Inter-American Conference on Social Security. ILO co-operated in arrangements for the Fifth Session of this conference; various studies were presented to the conference.	Conf. Soc.	Governments	1	Completed: March 1955	-
ILO Labour Administration Institutes. ILO has associated in the foundation at Istanbul, Turkey, of an institute for Labour Administration; future participants are expected from other countries in this area. Another Institute is established in Mexico.	Inst.	Government of Turkey, TAB	1	Continuing activity	-
	Inst.	Mexico	1	Continuing activity	-
ILO Relationship between urban and rural employment. Report to be presented to the 39th session of the International Labour Conference.	Soc.	-	2	In progress	June 1956
ILO Comparative employment potentials of different methods of production and their respective roles in industrial development. Report to be presented to the Asian Advisory Committee.	Soc.	-	2	In progress	Nov. 1956
ILO Social aspects of urbanization. Report to be presented to the seminar on post-war Asian urbanization.	Soc.	-	2	In progress	1956
ILO Labour statistics. Activities associated with Eighth International Conference of Labour Statisticians (23 November-3 December 1954).					
(a) Provisional classification of occupations. A provisional classification of occupations was prepared at the Eighth Conference of Labour Statisticians preparatory to the elaboration of a definite international standard classification.	Stat.	-	1	Adopted at Conference 1954	To be completed in 1957
(b) Labour force, employment and unemployment statistics. A revision of earlier standards was adopted at the Conference.	Stat.	-	1	Continuing activity	-
(c) International comparison of real wages. A resolution was adopted defining the principal criteria to be followed with a view towards an international comparison of real wages.	Stat.	-	1	Continuing activity	-
(d) Statistics of occupational diseases. Development of international standards in social security statistics and in statistics of occupational mortality and morbidity.	Stat.	-	1	Continuing activity	-
(e) Compilation of current international standards in labour statistics.	Stat.	-	1	Continuing activity	-
ILO Other projects.					
Publication of "Guide to Manpower Surveys";	Econ.	-	2	Completed	-
Publication of "International Classification of Occupations for Migration and Employment Placement".	Soc. Econ.	-	2	To be revised in 1956	-
FAO Nutrition projects: assistance to under-developed countries.	TA	WHO, UNICEF	1	Continuing activity	-

Project	Nature of work	In co-operation with	Pri- ority rating	Stage of work	Time for completion
4. Manpower, social and related aspects (continued)					
UNESCO Economic progress in Latin America. In 1956, UNESCO, in consultation with ECLA, is arranging a symposium on the meaning and criteria of economic progress in Latin America; the meeting will take place under the auspices of the International Economic Association.	Econ. Soc.	ECLA, International Economic Association	2	Planned	1956
UNESCO Evaluation problems related to economic development. A draft manual is being prepared on evaluating technical assistance projects, as a result of a conference held in 1954 in collaboration with TAB. An issue of the UNESCO International Social Science Bulletin for 1955 will contain a survey made by the International Social Science Council of evaluation problems including evaluation techniques for induced technological change. A field enquiry into possible techniques for use in South Asia relating to projects of education and technical assistance for economic development, is to be published shortly.	Soc. Tech.	TAB, International Social Science Council	1	Published: 1955	-
WHO Control and eradication of communicable diseases. Assistance is being given to numerous under-developed countries in controlling and eradicating malaria, venereal disease, treponematoses, yaws and bilharziasis, and surveying, assessing and assisting in BCG vaccination projects. These projects, although not conceived and implemented solely to benefit the industrial workers, are, however, of great assistance to them.	Med.	Governments UNICEF	1	Continuing activity	-
WHO Public health assistance projects. Assistance is being given to numerous under-developed countries in the planning, organisation and administration of a decentralized system of integrated public health services.	Med. Tech.	Governments	1	Continuing activity	-
WHO Nutrition projects: assistance to under-developed countries.	Med.	Governments, UNICEF, FAO	1	Continuing activity	-
WHO Environmental sanitation projects. These projects include assistance to under-developed countries in waste and garbage disposal industrial and domestic sewerage, tsetse fly control and typhus control.	Med. Tech.	Governments UNICEF	2	Ad hoc projects	...
5. Other aspects.					
UNTD Non-self Governing Territories. Information under Article 73e of the Charter. The information annually transmitted to the Secretary-General includes data on industrial development and industrial productivity. The information is summarized by the Secretariat and submitted annually to the Committee on Information from Non-Self Governing Territories and the General Assembly for their consideration.	Econ. Inf.	Governments	1	Continuing reports prepared annually	-
ECAPF 03-06 Methods for the estimation of capital formation. Study of the problems connected with the estimation of capital formation in countries of the ECAPF region, with a view to rendering assistance to Governments as and when required.	Econ. Stat. Adv.	UNSTAT	3	Deferred	Two to three years
UNESCO Scientific congresses and seminars. UNESCO gives financial assistance to the International Council of Scientific Unions and to the Union of International Scientific Organizations to help, <i>inter alia</i> , in the organization of international conferences and seminars.	Sem.	Various or- ganizations	1	Continuing activity	-

Project	Nature of work	In co-operation with	Pri- ority rating	Stage of work	Time for completion
5. Other aspects (continued)					
UNESCO Regional science co-operation offices. Offices are established for Latin America, the Middle East, South Asia and South-East Asia, which supply the regions with information, documentation and scientific samples. Assistance is also being given to Member States in creating scientific and technical documentation centres servicing industrial and scientific research in universities and specialized institutes.	Inf. Tech.	Various organizations	1	Continuing activity	-
II. PROJECTS RELATING TO INDUSTRIAL DEVELOPMENT					
6. Industrial development in general					
A. Economic and technological aspects					
UNBEA B.1 (b) (ii) Study of industrialization in the Middle East. The document is intended to be a study of the structural trends and longer-run problems in the field of industrialization in the Middle East and would take up topics such as the effects on the balance of payments, the relation of industrialization to the domestic market for manufactured goods, trends in the shift of the labour from agricultural to industrial occupations, the relationships between the increase in industrial incomes and the elasticity in domestic output of foodstuffs, etc.	Econ.	-	2	Under consideration	...
UNBEA B.5 (a) Survey of the work currently being undertaken under the aegis of the United Nations in matters relating to industrial development and the improvement of industrial productivity.	Inf.	Agencies concerned	2	Submitted to ECOSOC XXI session (April 1956)	-
UNBEA B.5 (b) Bibliography on research projects relating to industrialization in under-developed countries. Preparation of a bibliography of research projects being carried out by governments, universities and scientific institutions.	Inf.	Governments, Specialized Agencies	1	First supplement submitted to ECOSOC XXI session (April 1956)	-
UNBEA B.5 (c) Programme of work of the United Nations Department of Economic and Social Affairs in the field of industrialization and productivity.	Inf.	Headquarters and regional commissions	2	Submitted to ECOSOC XXI session (April 1956)	-
UNBEA F. Technical assistance. Planning and organizing the Bureau's contribution to the Technical Assistance Programme, including the provision of policy guidance and background material, advice on expert missions and training programmes and briefing of experts.	TA	UNTAA	1	Continuing activity	-
UNBEA Organization of a standard reference library for TAA experts. It has been noted that experts in the field are in many cases hampered by the lack of adequate library facilities. It is proposed, therefore, to set up small libraries of standard reference books and key publications in engineering and economics, perhaps located at the offices of TAA resident representatives.	Tech.	UNTAA	3	Under consideration	...
UNBEA Report on "Processes and Problems of Industrialization in Under-Developed Countries".	Econ. Soc.	-	2	Submitted to ECOSOC XIX session (March 1955)	-
UNSTAT Review of standards for censuses of industry. Review of recommendations made by the Statistical Commission on objectives, definitions and tabulations for censuses of industry, with a view to their revision in light of country requirements for data for economic development and other purposes, and practices in the collection of such statistics.	Stat.	Governments	1	Planned	1957

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
<p>6. <u>Industrial development in general</u></p> <p>A. <u>Economic and technological aspects</u> (continued)</p> <p>ECAFE 11-02 (b) Relation between agricultural and industrial development (see under "17. Agriculture, forestry, timber and fisheries").</p> <p>ECAFE 31-01 Industrial development and planning (see ECAFE 02-01 under "1. Planning and programming").</p> <p>IBRD Government of Ceylon Institute of Scientific and Industrial Research. A member of the Bank's staff is serving as the Institute's first Director. The objective of the Institute is the improvement of productive techniques through research applied to Ceylon's special conditions and characteristic products.</p> <p>IBRD Industrial Credit and Investment Corporation of India. Set up with Bank assistance, financial and otherwise, with the object of mobilizing capital for industrial enterprise.</p> <p>WHO Applied meteorology. The Technical Division of the Secretariat has recently carried out an inquiry amongst Meteorological Services of the world to obtain detailed information on the services rendered by these institutions in the various fields of applied meteorology, including those relating to industrial development and the improvement of industrial productivity. The result of this inquiry has not yet been published.</p> <p>B. <u>Social and related aspects</u></p> <p>ILO Studies on industrial medicine. (See WHO project below).</p> <p>FAO Nutrition and home economics.</p> <p>UNESCO Social impact of industrialization. A number of scientific studies of this problem have been published or are about to be published; in addition, new studies are being planned.</p> <p>UNESCO Social consequences of urbanization resulting from industrialization. The Asian Relations Organization has undertaken, under the auspices of UNESCO, to organize research into the social consequences of the movement of people from rural to urban areas as a result of industrialization. This study will shortly be published.</p> <p>UNESCO Social and cultural impacts of industrialization - Africa, south of the Sahara. A pilot field study was made in 1952 for UNESCO by the International African Institute on industrialization in Africa and its social and cultural impact on indigenous populations. This survey formed the basic documentation for a conference of social scientists and administrators held by UNESCO in 1954 on the social impact of industrialization and urban conditions in Africa, south of the Sahara. The studies and the results of the conference are to be published shortly.</p>	<p>Tech.</p> <p>Tech. Econ.</p> <p>Tech. Inf.</p> <p>Med.</p> <p>Tech. Soc.</p> <p>Soc.</p> <p>Soc.</p> <p>Soc.</p>	<p>Government of Ceylon, UNTAA</p> <p>Government of India</p> <p>World Meteorological Services</p> <p>WHO</p> <p>UNBSA, UNESCO, WHO</p> <p>-</p> <p>Asian Relations Organization, University of Dacca</p> <p>International African Institute</p>	<p>1</p> <p>1</p> <p>2</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>2</p>	<p>Continuing activity</p> <p>Continuing activity</p> <p>...</p> <p>In preparation</p> <p>Continuing activity</p> <p>Continuing project</p> <p>In progress</p> <p>Studies to be published shortly</p>	<p>-</p> <p>-</p> <p>...</p> <p>-</p> <p>-</p> <p>...</p> <p>...</p>

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
6. Industrial development in general					
B. Social and related aspects (continued)					
UNESCO Social implications of technological change. In 1953, UNESCO sponsored the establishment by the International Social Science Council of an International Research Office on Social Implications of Technological Change. This office serves as a clearing house for information in this field and has organized research for UNESCO. In 1955, the office submitted to the UN Conference on Prevention of Crime a study on social aspects of disorganization due to rapid industrialization with special reference to juvenile delinquency and crime. The office is at present organizing a survey of existing research on the relation between technological and social change.	Soc.	International Research Office on Social Implications of Technological Change	1	Continuing activity	-
UNESCO Social implications of industrialization in Southern Asia. A Regional Research Centre will be established by UNESCO, with financial assistance from the Government of India, as a service to Member States of the area, to promote and develop social science research in the field of social implications of industrialization, and to serve as a clearing house for available information. In September 1955 a meeting was held in New Delhi to advise on various questions connected with the establishment of the centre.	Soc. Inf.	Southern Asia Regional Research Centre, Governments	1	Centre to be established in 1956	-
WHO Industrial health projects. Assistance is being given to under-developed countries in establishing or developing industrial and occupational health and hygiene services.	Med.	Governments, ILO	1	Continuing activity	-
7. Industrial productivity					
A. Economic, social and technological aspects					
UNBEA E.5 (f) Studies on productivity and related problems. Preparation of continuing studies on problems of raising productivity in under-developed countries.	Econ.	...	1	Under consideration	...
ECAFE 31-05 Study of productivity and efficiency in industrial enterprises. TAA co-operation to be sought if necessary. Possibility of organizing a joint ECAFE/ILO/UNESCO Working Party to be explored.	Party Tech.	UNTAA ILO UNESCO	3	Deferred	Two to four years
ECAFE 32-06 Standardization. Study and working party concerning possible methods of standardizing materials used in cottage industries, to ensure maximum and predictable durability of products and thus enhance marketability.	Party Tech. Adv.	-	2	Planned	Two years
ECAFE 33-05 standards for electrical plant and equipment and standardization of system practices. The urgent need for adopting appropriate standards for equipment (including voltages, frequencies), methods and practices in all fields of the electricity industry is to be brought out.	Tech. Adv.	-	2	Planned	Two years
ECAFE 35-04 Iron and steel specifications. Study of possible methods of simplification and/or standardization of specifications for manufacture and use of iron and steel and their products.	Tech.	-	2	Planned	Three to four years
ECAFE 37-10 Standardization. (a) Survey of merchandise standardization and certification marking procedures and problems confronting the countries of the region;	Tech. Adv.	UNTAA, FAO, IOS	2	In progress	Two years

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
7. Industrial productivity					
A. Economic, social and technological aspects (continued)					
(b) Convening of special working parties of the agencies concerned with this project. (To be co-ordinated with project 32-06. See under "15. Cottage and small-scale industries").	Party	UNTAA, FAO, IOS (to be sought)	2	Planned	-
ECAFE 42-04 Uniform design standards and specifications for roads and bridges.	Tech.	-	2	In progress	First report: 1956 Final report: 1957
ECAFE 44-06 Standardization of rolling-stock, with a view to facilitating production, improving availability, reducing costs per units and facilitating interchange of traffic between certain railways of the region.	Tech.	-	3	Deferred	Two years
ECLA 9 Study of technical, economic and social factors affecting productivity in the Latin American economy (see also ECLA 18, under "17. Agriculture").	Tech. Econ. Soc.	-	2	Work will begin in 1957	...
ECLA 26 (e) Specifications and standards in iron and steel industries (see under "10. Engineering").	Tech.	Governments	1	Continuing activity	-
ILO Industrial Productivity centres. Assistance is being given by the ILO in the establishment of, or assistance in, the work of national productivity centres in a number of under-developed countries.	Tech.	-	2	Completed	-
ILO Higher Productivity in Manufacturing Industries. A study with the above title was published in 1954.	Tech.	-	2	Completed	-
ILO Handbook on Work Study. A handbook on work study was prepared in 1954 for use by ILO technical assistance missions. A revised edition is being published in 1956.	Tech.	-	2	Completed	-
ILO Productivity in individual industries. The industrial committees of ILO, established for coal mines, metal trades, textiles, building, civil engineering and public works, chemical industries, iron and steel, inland transport and petroleum, and also the ILO Committee on work in plantations, include in their agendas various labour questions having a bearing on productivity, and a number of them have discussed directly factors affecting productivity.	Tech. Soc.	-	1	Continuing activity	-
FAO Standards on milk quality control. A study meeting was held in 1955 for the purpose of preparing standards on milk quality control; further meetings to be held in 1956.	Meet. Tech.	International Dairy Federation WHO, UNICEF	1	Held in 1955	-
IBRD Government of Ceylon Institute of Scientific and Industrial Research (see under item 6.A).	Soc.	International Social Science Council, ILO	1	Study to be undertaken in 1956	-
UNESCO Factors affecting productivity. A comparative study, to be made by the International Social Science Council of sociological, psychological and cultural factors affecting productivity is to be undertaken in 1956. Consultation with ILO is taking place in connexion with the implementation of this project.	Soc.	International Social Science Council, ILO	1	Study to be undertaken in 1956	-
B. Vocational and technical training					
ECAFE 31-03 Trained personnel for economic development. Manpower and training facilities survey (see also UNESCO project under "7.C. Management aspects").	Party Train.	ILO, UNESCO	1	Fifth meeting Oct. 1955	-
ECAFE 31-04 National management institutes and training centres. Assistance to countries of the region in the establishment of national management institutes and training centres.	Inst. Train.	ILO, UNESCO, UNTAA	2	Planned	1955-1957

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
7. <u>Industrial productivity</u>					
B. <u>Vocational and technical training (continued)</u>					
ECLA 4 (b), 5 and 10 Technical Research and Training in Latin America (see under "1. Planning and programming").					
ILO Asian Technical Conference on Vocational Training for Industry. To consider the following subjects:	Soc. Train.	...	1	Convened in Rangoon Nov.-Dec. 1955	-
(a) Problems of organization and administration of vocational training programmes;					
(b) Organization and administration of apprenticeship;					
(c) Recruitment and training of teachers and instructors for vocational training;					
(d) Training of supervisors.					
ILO Survey of Vocational Training Facilities in Central America. Contains recommendations for the development of vocational training and for the establishment of a regional polytechnic.	Soc. Train.	UNESCO	1	Discussed at the meeting of the Committee of Central American Ministers	-
FAO Agricultural training (see under item 1).					
UNESCO Science teaching in schools. Technical assistance in this field is provided to under-developed countries. A science teaching conference for South-East Asia is being organized by UNESCO to be held in Bangkok in 1956.	TA Meet.	Governments ECAFE	1 2	Continuing activity 1956	- -
UNESCO Conference for the Arab States of the Middle East, for vocational and technical education.	Tech. Meet.	ILO, FAO	2	Proposed for late 1956	-
UN/ILO/FAO/UNESCO/WHO Training and production centres for fundamental education. Two regional centres are presently established, one for Latin America and the other for the Arab States, which generally seek to help children and adults who do not have the advantages of formal education to participate more effectively in the economic and social progress of their community. There are a number of centres for individual countries.	Train.	Inter-Agency project	1	Continuing activity	-
UNRWA Vocational training. The Agency plans to expand its vocational training programme.	Train.	Governments	1	Continuing activity	-
C. <u>Management aspects</u>					
ECAFE 31-02 Dissemination of technical information on organization and administration of industrial establishments.	Inf.	-	1	In progress	-
ECAFE 31-04 National management institutes and training centres (see under "7.B. Vocational and technical training").					
ILO Productivity in individual industries (see under "7.A. Economic, social and technological aspects").					
FAO Fo.3.2 Sylviculture and management. FAO will help improve and develop adequate sylvicultural and management practices by stimulating research in this field; facilitating the more rapid dissemination of information and compiling and publishing up-to-date material on specific technical problems; and by furnishing direct advice and guidance to governments in developing and applying appropriate sylvicultural techniques and management methods.	Inf. Tech. Adv.	-	1	...	...

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
7. Industrial productivity					
C. Management aspects (continued)					
UNESCO Training personnel for economic development. UNESCO participates in the inter-secretariat Working Party on Training Personnel for Economic Development. UNESCO contributes chiefly by compiling information on management training facilities in the region and by making available specialized information concerning such subjects as research institutes. (See also ECAFE 31-03 under "7.B. Technical and vocational training").	Party Train.	ECAFE, ILO	1	Fifth meeting Oct. 1955	
IBRD Research study analyzing possible types of management arrangements for projects in under-developed countries. The problem arises principally in connexion with mining, power, transportation and industrial undertakings. The objective of the study will be to bring together the extensive practical experience in this field in both industrialized and under-developed countries, and analyze it in such fashion as to make it useful and readily available to policy-making officials in under-developed countries. The study will cover such matters as: (a) The kinds of firms which provide managerial services; (b) the relative advantages, in a given situation, of contracting for the services of one or another type of firm or of individuals; (c) the financial incentives necessary to attract competent management; and (d) the variety of possible arrangements with respect to the extent of managerial services to be provided.	Tech.	Graduate School of Public Administration of Columbia University; Nuffield College of Oxford University; Foundation for Economic Research of the University of Amsterdam.	2	Under way	Summer 1956
8. Mineral resources and mining					
UNBEA Survey of World Iron Ore Resources, Occurrence, Appraisal and Use. Report of a committee of experts, dealing with ore deposits, terminology, exploration and discovery techniques, beneficiation of ore and processes for producing iron and steel, with special attention to techniques applicable in under-developed countries.	Tech. Econ.	Experts	2	Completed: 1954	-
UNBEA B.3 Mineral resources and mining (a) Report on "Non-ferrous Metals in Under-Developed Economies". Assesses the position of the under-developed countries as producers and consumers of the major non-ferrous metals; reviews secular trends in use of such metals as well as short-term fluctuations in demand and price. Seeks to provide an up-to-date picture of the distribution of smelting and refining facilities. Discusses the problems involved in maximizing the development potential of various activities directly based on the exploitation of non-ferrous ore resources.	Econ.	-	2	In progress	ECOSOC XXIIth session April 1956
(b) Assistance to a proposed ad hoc committee of experts to deal with problems of copper, lead and zinc.	Meet.	Experts	3	Under consideration	...
ECAFE 36-01 Regional mining development review. Periodic review of current mining activities in the region including discoveries of new mineral deposits, development of new mines including small mines, installation and expansion of mineral processing plants, and economic aspects of mineral production including its co-ordination with electric power developments. Earlier secretariat reports have reviewed progress from 1949 to 1954.	Econ. Tech.	-	1	Two reports printed; third report in preparation	Annual
Report on organization and methods of compiling mineral statistics of the region to be prepared in conjunction with the mining development reviews.	Stat.	-	1	-	-

Project	Nature of work	In co-operation with	Pri- ority rating	Stage of work	Time for completion
8. Mineral resources and mining (continued)					
<p>ECAFE 36-02 Technical studies and dissemination of information on selected mineral resources and mineral discovery and extraction methods.</p> <p>Studies limited to resources basic to the industrial development of the region or in short supply in the world market. Studies already made on coal, iron ore, aluminium, sulphur, and kaolin. Study of ilmenite resources of the region in relation to the recent development of titanium manufacture, started in 1954 and continued in 1955. Report on coal and iron ore resources including data on coking coal resources, to be brought up to date.</p>	Inf. Tech. Adv.	-	1	In progress	...
<p>ECAFE 36-03 Exploration, exploitation and utilization of lignite and other low-grade coals in the regions. Comprehensive study covering exploration, availability and extraction, including distribution, quantity, quality, mining, beneficiation, and utilization, and economic aspects; country studies, including recommendations for development in each country. Further reports on lignite exploitation and utilization completed in 1955. Study of exploitation and utilization of peat and low-grade coals to follow.</p>	Tech. Adv.	-	2	In progress	1955-1956
<p>ECAFE 36-04 Integrated study of the fuel economy of the region.</p> <p>Study to cover current and potential production and consumption of fuels of countries of the region, cost of production and market prices, comparison of advantages and disadvantages of utilization of various kinds of fuels and best methods to utilize known fuel resources. Review of the fuel policies of countries of the region.</p>	Econ. Tech.	-	2	In progress	1956-1957
<p>ECAFE 36-05 Compilation of existing regulations governing the mineral development of the region.</p>	Econ. Tech.	UN Legal Department	2	In progress	1956-1957
<p>ECAFE 36-07 Standard classification of coal for regional use.</p> <p>Preliminary report presented to the Committee on Industry and Trade at its third session. Second report completed in 1953. This was also considered by the ECE working party in connexion with the international standard classification of coal. Date of completion of third report, 1955. International exchange and laboratory investigation of coal samples to be promoted in co-operation with ECE.</p>	Tech. Adv.	ECE	2	Third report 1955. Follow-up work to be initiated	Indeterminate
<p>ECAFE 36-08 Study tour of mining experts and geologists from Asia and the Far East to Europe including the USSR. Study tour of geologists and mining experts from Asia and the Far East, dealing with coal and metalliferous mines, to selected countries in Europe and to the USSR in 1955. Duration of the study tour, six weeks.</p>	Vis.	UNTAA	2	Six-week tour in 1955	-
<p>ECAFE 36-10 Ad hoc working group on expansion of the aluminium industry in the region.</p> <p>To examine plans which countries are now undertaking or contemplating for the expansion of their aluminium industries.</p>	Party Tech.	UNTAA, if required	3	Deferred	Preparatory work: one year
<p>ECAFE 36-11 Joint research and pilot projects on low-grade coals. Examination of the possibility of encouraging expansion of joint research and of assisting some country or countries of the region in setting up a pilot plant for treating low-grade coals including lignite; exploration of possibility of regional use of such project.</p>	Pilot Tech. Adv.	UNTAA (by the countries concerned)	3	Deferred	Two years

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
8. Mineral resources and mining (continued)					
ECE 03.1.3 Consumption of solid fuels by consuming sectors. Consumption trends in the main coal-consuming sectors are being studied. The first study covers household consumption. A second study will deal with the transport sector as a consumer of energy; it will analyze the development of the use of different forms of energy in this sector, and the consequences for the coal market. A third report is to deal with fuel consumption trends in thermal power stations.	Tech.	-	1	In progress	...
ECE 03.1.4 Solid fuel utilization. The problem of widening the range of coal to be used for carbonization purposes, with a view to achieving a rational utilization of European coal availabilities, particularly coking coal, is being studied.	Tech.	-	1	In progress	...
It was decided to organize in 1955 two special meetings of experts, each dealing with one of the following subjects: (a) The combustion of fuels with a high ash content and of fuels and, (b) The utilization of solid fuels in the domestic sector.	Meet. Tech.	Experts	1	Meetings in 1955	...
ECE 03.2.1 Coal classification. Formulation of a complete classification of hard coals, including rank size and other characteristics; establishment of a classification system for brown coal, lignite and coke.	Tech.	-	2	Under review	...
ECE 03.2.2 Coal in relation to other forms of energy. Following on the study of the relationship of coal and black oils, a study on electric energy in Europe produced by means other than fossil fuels will be completed. A study on the development of the use of gas in Europe is to be prepared.	Tech.	-	2	Under consideration	...
ECLA 32 Mining. Compilation of data on estimated reserves of ores of non-ferrous metals, and economic and technical problems related to mining and non-ferrous metallic ores, their preparation, smelting and refining.	Econ. Tech.	-	3	Deferred	Two years
ECLA 33 Collection and classification of data available on non-agricultural resources in Latin America.	Inf.	-	3	Deferred	Three years
ILO Coal Mines Committee	Soc. Econ. Tech.	-	1	Continuing activity	-

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
9. Iron and steel industries					
UNREA Survey of World Iron Ore Resources. The Survey includes studies of processes for producing iron and steel (see under item 8).					
ECAFE 35-01 Survey of iron and steel industry and trade in ECAFE countries. Continuing study of plans and problems and dissemination of technical and economic information relating to such plans and problems. To include:					
(a) Annual review of the iron and steel industry including production plans and problems of development of the iron and steel industry and allied industries in countries of the region;	Inf. Tech. Econ.	-	1	Various reports prepared during 1949 to 1955. Others planned to be prepared in 1956.	Reports to be issued from time to time.
(b) Survey of detailed demands by product;	Econ. Tech.	-	1		
(c) Survey of existing facilities and possibilities of manufacture of alloy steels, ferro-alloys, fluxes and refractories;	Econ. Tech.	-	1		
(d) Iron and steel foundries;	Adv. Tech.	-	1		
(e) Re-rolling mills;			1		
(f) Scrap classification - formulation of uniform methods;			1		
(g) Laboratory and research facilities - preparation of a directory and a list of main technical libraries and selected bibliography of relevant iron and steel publications, in co-operation with UNESCO;	Tech.	UNESCO	1		
(h) Formulation of uniform statistical reporting methods;	Stat.	-	1		
(i) Steel fabricating and processing industries including manufacture of agricultural implements and various light steel products;	Adv. Econ. Tech.	-	1		
(j) Dissemination of technical information relating to the foregoing, and also concerning ore beneficiation and processes for manufacture of iron and steel, small rolling mills, refractories manufacture and the techniques of scrap collection and scrap preparation;	Adv. Inf. Econ. Tech.	-	1		
(k) Important aspects of intra-regional and inter-regional trade development in iron and steel;	Econ.	-	1		
(l) Survey of existing and proposed steel-transforming industries - will include forging, welding, machine and heat treatment shops.	Econ. Tech.	-	1		
ECAFE 35-02 Iron and Steel Bulletin. Periodic publication of latest developments and practices of iron and steel processing techniques of interest to ECAFE countries, current activities and major developments in the iron, steel and allied industries in the region and production data on raw materials and finished products.					
	Inf. Econ. Tech.	-	1	Planned	Annual
ECAFE 35-03 Technical study of iron and steel manufacturing processes in Europe and North America. Processes of iron manufacture without coking coal, steel manufacture, ore beneficiation and training of technicians. Study and, if possible, a group visit to Europe and the United States. The second report of the secretariat will be submitted to the seventh session of the Sub-Committee on Iron and Steel. Co-operation of TAA to be sought for the group visit in 1956.					
	Vis. Tech.	UNTAA	2	Planned	1956
ECAFE 35-04 Iron and steel specifications (see under "7.A. Industrial productivity: Economic and technological aspects").					

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
9. Iron and steel industries (continued)					
ECAFE 35-05 Scrap-collection drive. Arranging for scrap experts to assist in launching an intensified scrap-classification and preparation of scrap. Co-operation of TAA to be sought.	Adv.	UNTAA	2	Planned	1957-1958
ECAFE 35-06 Pilot plant. Co-operation among countries on pilot plants making iron without coke. Co-operation of TAA to be sought by the countries concerned.	Adv. Pilot	UNTAA	2	Not yet initiated	Three years
ECAFE 35-08 Market research. Study of existing market research and possibilities of applying systems used in more advanced countries. Co-operation between the steel industry and other consuming industries. Efficiency in steel utilization, etc. Co-operation of ECE may be sought at the appropriate stage.	Econ.	ECE	3	Deferred	Two years
ECE 08.1.2 Trends in steel technology. Annual report, arranged and edited by the secretariat, consisting of papers by national technical institutions and individual experts, of technological developments in the steel industry, purely with a view to helping the less-industrialized countries in the formulation of their steel policies.	Tech.	Experts, national technical institutions	1	In progress	Annual
ECE 08.1.3 Flat steel products. Periodic review of developments in the field of flat products.	Tech.	-	1	...	...
ECE 08.1.4 Trade in steel. Periodic review of Europe's internal trade and exports to non-European countries of ores, semi-finished and finished steel.	Econ.	-	1	...	...
ECE 08.2.1 Tubes. Periodic review of developments in the field of tubes.	Tech.	-	2	Provisional study completed: 1955	...
ECE 08.2.2 Railway material. A report is being prepared on railway material with particular emphasis on the trends of consumption of steel products for railway purposes in Europe and overseas.	Tech.	-	2	Provisional study: 1955	...
ECE 08.2.3 Substitution between steel and other metals and materials. Study of substitution between steel and other metals and materials, i.e. aluminium, plastics, concrete, asbestos-cement and timber. These inquiries involve comparison of relative availabilities of steel and alternative metals and materials, physical properties and characteristics, costs and prices, and consider the problems of substitution as they arise in end-using industries where there is a choice between steel and other materials.	Econ. Tech.	-	2	Provisional study: 1955	...
ECE 08.2.4. The determination of capacity in the iron and steel industry. The Committee has recommended a method of arriving at a formula applicable to the whole of Europe for determining capacity in the iron and steel industry.	Econ. Tech.	-	2	...	...
ECLA 26 Iron and steel making and transforming industries (see under "10. Engineering industries").					
ILO Iron and Steel Committee	Soc. Econ. Tech.	-	1	Continuing activity	-

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
10. Engineering industries					
ECE 05.1.1 Review of trends of production, demand and trade - in engineering products. The field of agricultural machinery is to be examined by an ad hoc working party to be convened early in 1956, which will exchange information, on an all-European basis, on technical developments and consider the scope for increased production and possibilities of increased trade in certain items of agricultural equipment.	Party	...	1	End 1955 or early 1956	...
ECLA 26 Iron and steel making and transforming industries.					
(a) Study of iron and steel transforming industries in individual countries. Studies for Brazil, Chile and Colombia will be revised and completed to be used as background documents for the meeting of experts in Brazil. The extension of these studies to other countries is planned.	Econ. Tech.	-	1	First report completed. Revision in progress	1956
(b) Expert conference on steel making and transforming industries, to be held in Sao Paulo, Brazil.	Meet. Party	UNTAA, Spec. Agencies	1	Preparatory work in progress	1956
(c) Committee of experts on specifications and standards in iron and steel industries. This committee will be constituted if the results of the Sao Paulo conference warrant it.	Party	UNTAA	2	Planned	...
ILO Metal Trades and Building, Civil Engineering and Public Works Committees.	Soc. Econ. Tech.	-	1	Continuing activity	-
11. Chemical industries					
ECLA 27 Study of chemical industries. Analyses of the existing industry, of imports and possibilities for substitution through the establishment of domestic industries, of availability of raw materials in Latin America and of technical and economic problems affecting their utilization.	Econ. Tech.	-	1	In progress	1957
ILO Chemical Industries Committee.	Soc. Econ. Tech.	-	1	Continuing activity	-
12. Textile industries					
ECLA 25 Study of production, industrialization and export markets of hard fibres. FAO is making a study which effectively covers these topics. (See FAO project below.)	-	-	3	Deferred	-
ECLA 36 Textile industry.	Econ.	...	3	Deferred	One year
ILO Textiles Committee.	Soc. Econ. Tech.	-	1	Continuing activity	-
FAO Hard fibres. Analysis of production, consumption and trade aspects of the world hard fibre situation, including study of technological changes bearing on long-term trends in demand.	Econ. Tech.	Research organizations	1	Initial stage	...
FAO Preparation and processing of wool for market.	Adv.	Governments	2	...	...
13. Food processing industries					
ECLA 35 Food processing industries.	Econ.	...	3	Deferred	Two years
FAO A.5.5 Processing of livestock products.					
(a) Milk processing. A working party is to be convened to study and prepare a report on new developments in the design of plant and equipment for milk processing and the manufacture of milk products and on the standardization of equipment and plant control.	Party	UNICEF	2	In progress	1955

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
13. Food processing industries (continued)					
(b) Technical Handbook for Workers in the Dairy Industry. A handbook on technical and education and training of managers, foremen and dairy plant workers is being prepared, setting out the best methods of ensuring efficient plant management and milk quality control, for the benefit of countries newly entering the field of milk processing.	Tech.	UNICEF	2	In progress	1955
(c) Consumption of dairy products. A study is being made of the contribution which improvements in production, processing and marketing can make towards raising the consumption of dairy products and of fluid milk, particularly under tropical and sub-tropical conditions.	Tech.	WHO UNICEF	1	In progress	1955
FAO Ag. 7.2 Processing of individual agricultural commodities. Papers on processing of a number of agricultural commodities including brown sugar (ghur) and olive oil are in preparation.	Tech.	-	1	In progress	1955
FAO Fi.4.4 Processing of fisheries products. Material is being collected on the handling, processing and distribution of fishing products.	Tech.	Indo-Pacific Fisheries Council	2	In progress	...
FAO Nu.2.1.4 Food processing and technology. Assistance to governments in improving local practices in food processing and preservation in order to produce low cost, palatable and nutritious foods.	Tech.	UNICEF	1	Continuing project	-
14. Other manufacturing industries.					
ECLA 28 Expert advisory group to assist governments and paper industry in the development of the pulp and paper industries.	Party	FAO UNTA	1	Continuing activity	-
ECLA 34 Studies of possibilities of establishing processing industries utilizing domestically-produced raw materials. This project is partially fulfilled by the studies of economic development of individual countries and the studies on the iron and steel, chemical and pulp and paper industries (ECLA 3, 26, 27 and 28). Despite the low priority allotted to this study, it is hoped to start work on a general survey of the processing industries in 1956 or 1957.	Econ. Tech.	-	3	Planned to start in 1956 or 1957.	...
FAO Ag. 7.2 Processing of individual commodities. A paper on the processing of rubber is in preparation.	Tech.	-	1	In preparation	...
15. Cottage, small-scale industries, community development and co-operatives					
UNBIA Expert working group on technological centres. Government officials from under-developed countries met in Copenhagen in May and June 1954, to study the organization, methods and scope of the Danish Technological Centre and their adaptability to conditions in less-developed countries. A report of this meeting has been distributed.	Econ. Tech. Meet.	UNTA ILO UNESCO	2	Completed: 1955	-
UNBIA-SC 11 Social progress through community development. A report will be prepared containing recommendations on further practical measures to strengthen and make more effective the methods and techniques of community development programmes.	Soc. Tech.	Specialized Agencies	2	Completed: End 1955	-

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
15. <u>Cottage, small-scale industries, community development and co-operatives (continued)</u>					
UNBSA-SC 12 Meetings of experts and government officials to analyze country projects and programmes in community development.					
(a) A study tour in several countries of the Eastern Mediterranean area took place in the fall of 1955.	Soc. Meet. Tech.	Reg. econ. commissions, Govts. and Specialized Agencies	2	Completed	-
(b) Country programmes in community development are expected to be discussed at the Fifth Social Welfare Seminar for Arab States in the Middle East, which is planned to be held in Saudi Arabia in 1956. Study tours are being prepared in relation to this project.	Soc. Meet. Tech.	Id.	2	Under consideration	1956
(c) Similar meetings are tentatively planned for Latin American countries (Mexico, 1957) and for Asia and the Far East (1957).	Meet. Tech. Soc.	Governments, Spec. Agencies, regional commissions	2	Under consideration	1957
UNBSA-SC 13 Regional surveys of community development experiments in Africa, south of the Sahara. A survey mission is under way.	Tech. Soc.	Governments, Spec. Agencies	2	In progress	June 1956
ECAFE 32-01 Dissemination of technical information concerning methods of production, equipment, lay-outs, processes, and standards used in various industries. Continuing emphasis to be given to the co-ordination of studies by countries on the type of textiles suitable for hand-loom production.	Tech. Inf. Adv.	-	1	Technical notes to be issued from time to time	-
ECAFE 32-02 Promotion and co-ordination of research and experiments by countries of the region. Report to be submitted to each working party meeting. Reports on various aspects of the ceramics industry to be submitted by countries to the next meeting of the working party held in November 1955.	Tech. Inf. Party	-	1	Country papers submitted at working party meetings	-
ECAFE 32-03 Economic aspects of cottage and small-scale industries. Studies of the economic aspects of cottage and small-scale industries, including the problem of protection from imports and studies of competition with large-scale domestic manufacturers, and the distinctions between marketing the products of these industries for export and for domestic consumption. Case study of selected industries to follow.	Econ. Adv.	ILO	1	First report: 1955	Further reports from time to time
ECAFE 32-04 Common facility services for cottage and small-scale industries. Study of experience and examination of potentialities of common facility services for groups of independent producers as a technique for the improvement of quality, expansion of production and reduction of cost of selected cottage industries.	Econ. Tech. Adv.	-	2	Completed: 1955	Work to be followed up two years
ECAFE 32-05 Studies on production and marketing techniques. Studies on production and marketing techniques of selected cottage industries.	Tech. Adv.	UNTAA	2	Report on ceramics issued in 1955	-
ECAFE 32-06 Standardization. (see under "7.A. Industrial productivity: Economic and technological aspects").					
ILO Handicrafts and small-scale industries. Various technical assistance missions were undertaken in 1955 and are planned for subsequent years.	TA	UNTAA	1	Continuing activity	-
ILO American Regional Technical Meeting on Co-operatives. Agenda includes study of co-operative problems and methods, and of programmes for the development of co-operation in American countries; a comparative study of co-operative legislation in America; co-operative education and training.	Meet. Tech. Soc.	OAS	1	Conference to be held in late 1955	-

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time or completion
15. <u>Cottage, small-scale industries, community development and co-operatives</u>					
ILO Labour and social problems of small-scale and handicraft industries in Asian countries. Item proposed for the next Asian Regional Conference agenda. Studies are in progress.	Soc.	...	1	In progress	-
FAO Ag.7.2 Rural industries.					
(a) Flaying and curing of hides and skins as a rural industry. (Agricultural Development Paper No. 49, 1955.) A study on rural tanning techniques is being prepared.	Tech. Adv.	-	1	In progress	1956
(b) Methods of country surveys of rural industries. A study of methods used in conducting country surveys of rural industries, to assist governments who wish to ascertain the facts relating to existing rural industries before embarking on plans for their development.	Tech. Adv.	-	1	In progress	...
(c) Provision of advice to governments on processing of agricultural products and rural industries.	Tech. Adv.	-	1	Continuing activity	-
UNRWA Development of small industrial, commercial, agricultural and housing schemes in Jordan and Syria. Operates mainly through grants. The Jordan Development Bank, to the capital of which UNRWA has contributed, gives long-term loans to economically viable enterprises in the industrial and agricultural field which give employment to refugees.	Grants Tech. Econ.	Governments	1	Continuing activity	-
16. <u>Power, water resources.</u>					
UNBEA B.1 (c) (ii) Study of water resources in Africa. Water resource utilization and development in Africa.	Econ.	-	2	In progress	ECOFOC XIV session (1957)
UNBEA B.2 (a) Study of industrial uses of water. General report on utilization of water resources.	Econ.	Governments	2	In progress	Envisaged for ECOFOC XIII session (1957)
UNBEA B.2 (b) National water boards.	Econ.	Governments	2	In progress	Envisaged for ECOFOC XIV session (1957)
UNBEA B.2 (c) Selected multi-purpose projects. Study of lessons to be drawn from experience of multi-purpose projects already in existence.	Econ.	Regional Commissions	3	Deferred	-
UNBEA B.2 (e) Report on international co-operation in resources development and utilization of water.	Econ.	-	1	In progress	ECOFOC XII session (1956)
UNBEA B.2 (f) Report on the second Inter-Agency meeting on water resources.	Party	Specialized Agencies, UNTA and Regional Commissions	2	In progress	December 1955
UNBEA B.2 (g) Comparative studies of:					
(i) Conventional sources of energy. Study of resources, production, consumption and trade by regions and conclusions in regard to production of electric power.	Econ.	-	2	In progress	...
(ii) Some economic implications of nuclear power for under-developed countries. This report has been presented to the International Conference on Peaceful Uses of Atomic Energy.	Econ.	-	2	Completed: 1955	-
(iii) Other unconventional sources of energy (apart from nuclear energy). Studies of the possibilities of solar, wind, geothermal and tide energy.	Econ.	-	2	In progress	...

Project	Nature of work	In co-operation with	Pri- ority rating	Stage of work	Time for completion
16. Power, water resources (continued)					
ECAFE 21-01 Multiple-purpose river basin development. Investigation and promotion of multiple-purpose river basin development in the region.					
(a) Country-by-country survey of water resources, present status of utilization and future plans of development, and study and analysis of problems and difficulties encountered;	Tech. Adv.	-	1	In progress	-
(b) Preparation of detailed reports on various specific subjects;	Tech.	-	1	In progress	-
(c) Analysis of planning and execution of selected multiple-purpose projects in the region, e.g., the Damodar Valley Project, India.	Tech.	-	1	In progress	-
ECAFE 33-01 Review of progress of electric power development in Asia and the Far East.	Inf. Econ. Adv.	-	1	4 issues published, 5th to be issued in 1955	Annual
ECAFE 33-02. Rural electrification. Follow-up action on the secretariat's reports on technical and economic aspects of rural electrification. Assistance to the countries in preparing programmes of rural electrification with particular reference to the application of electricity in rural industries.	Econ. Tech. Adv.	UNTAA (by the countries concerned) FAO	2	Initiated	Two years.
ECAFE 33-03. Hydro-electric potential of each country of the region and its gross, technical and economic limits. Study of the basic principles and methods for assessing "theoretical gross potential", "technical potential" and "economic potential". Assistance to countries of the region in assessment of the hydro-electric potential.	Tech. Adv.	Governments	2	Initiated	Four years.
ECAFE 33-04. Group visit of electric-power experts from the region to manufacturers' plants and power stations in Europe, and if possible in North America. The broad objectives of the group visit would be: (a) Review of the manufacture of heavy electric power plants in European countries and North America; (b) Study of the standards and specifications adopted by the various European countries and North America with a view to: (1) Reconciling them with Asian purchasers' specifications; (ii) Considering the feasibility of using component items from more than one manufacturer in the construction of power plants; (c) Study of the latest technical developments in power plant design and operation; (d) Study of the modern methods and system practices adopted by the European countries and North America in the field of the electric power supply industry designed to improve production, facilities construction, operation and maintenance, and reduce costs.	Vis. Tech.	UNTAA	2	Planned	1956
ECAFE 33-05. Standards for electrical plant and equipment and standardization of system practices. (See under "7A. Industrial productivity: Economic and technological aspects").					

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
16. <u>Power, water resources</u> (continued)					
ECAFE 33-06 Economic loading of power systems and power apparatus. Review of the principles and methods of operation of generating, transforming and transmission equipment so as to obtain the maximum efficiency and economy.	Tech. Adv.	-	3	Deferred	Two years
ECAFE 33-07 Electricity in mining. Study of the possible exclusive application of electricity in deep mining and of potential benefits in increasing production and improving product quality.	Tech.	-	3	Deferred	Two years
ECAFE 33-08 Regulation and control of public-utility electricity industry. Comparative study of the legal and legislative enactments controlling and regulating the electricpower supply industry in the countries of the region.	Tech.	-	3	Deferred	Two years
ECE 04.1.5 Rural electrification. A working party is examining, at periodic meetings, the problems connected with the production, transmission, distribution and utilization of electric energy in rural areas, as well as various economic, administrative and financial questions. Assistance to countries for the preparation of programmes of development of rural electrification and for the electrification of model villages and farms.	Party Adv.	UNTAA, as advisable	1	Twenty-nine reports in course of preparation	...
ECE 04.2.1 Exports of electric power from Yugoslavia. Now that the technical, economic, financial and legal study of the prospects of exporting electric power from Yugoslavia has been approved, establishment at the inter-governmental level of a Co-ordination Committee consisting of two representatives each of Austria, the western zones of Germany, Italy and Yugoslavia was agreed, with the following terms of reference: "To study, in the light of developments in the situation, the various arrangements which might be contemplated for the execution of the scheme; "To facilitate the negotiation of inter-governmental agreements to match the bilateral contracts concluded between the undertakings of the countries concerned; and "Generally, to co-ordinate the study and execution of the several stages."	-	Governments	2	...	...
ECE 04.2.2 Production of electric power by nuclear reactors. This question will be placed on the agenda for the thirteenth session, when it will be decided whether it rests with the Committee on Electric Power to take action at the European level, in the light of the results of the International Conference on the Peaceful Uses of Atomic Energy to be held in August 1955, and of any decisions taken by that conference, such decisions to be communicated to the Committee in a report by the secretariat.	Tech.	-	2	...	...
ECE 04.2.3 Gross hydro-electric potential of European countries. Extension of the general study (document E/ECE/EP/131) to cover Turkey, and later Yugoslavia and Greece. *****	Tech.	Experts	2	...	...
ECLA 29 Development of energy resources. This project will comprise the continuation of the collection of statistical data, an appraisal of hydro-electric resources in selected areas, a field investigation of the efficiency of production and utilization of energy resources, and the circulation of information of interest to Latin American governments on the development in the field of nuclear energy.	Tech. Econ. Stat. Inf.	Governments and UNTAA	1	In progress	Reports on certain aspects of this project will be ready in 1957.

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
16. <u>Power, water resources</u> (continued)					
<p>ECLA 30 Preliminary examination of multiple water resource utilisation in Latin America.</p> <p>A team of experts, working with the full collaboration of government agencies and local experts, will make an appraisal of existing information and a definition of the principle problems that must be dealt with by the respective governments in establishing a water resources development programme. It is intended that the report of the expert working group may give a clear indication of the gaps in information and of the methods for collecting such data, as well as of the steps and mechanisms required for planning an over-all programme for water utilization.</p>	Tech. Econ.	Experts	1	Work to start in Feb. 1956	1957
<p>UNESCO Arid Zone research.</p> <p>Under the programme of promotion and co-ordination of research for the development of the Arid Zone, a preliminary scientific study has been made of the industrial use of energy derived from the sun and wind.</p>	Tech. TA	-	1	Continuing activity	-
<p>UNESCO Nuclear research.</p> <p>Following an initiative of UNESCO, a European Organization for Nuclear Research was established at Geneva in 1954. Assistance in nuclear physics has so far been provided to Brazil, and further missions are contemplated in 1956.</p>	Inst. TA	ECNR	1	Missions in 1956	-
<p>WMO Meteorological elements as sources of power.</p> <p>At the seventh session, in May 1955, of the Second World Meteorological Congress, its Executive Committee established a Panel of Experts on Water Resource Development with the following terms of reference: (a) to prepare a programme of the WMO calculated to meet the needs of the UN and specialized agencies and to assist Members within the common ground between meteorology and hydrology; (b) to advise the Secretary-General, as necessary, on problems within the above field, including assistance in preparations for a possible international conference on meteorological and hydrological aspects of water resource development.</p>	Tech.	Experts	1	...	...
<p>WMO Engineering and industrial activities affected by weather or climate.</p> <p>A current project deals with the application of meteorology to problems in the atomic energy industry, in particular the latter's air pollution aspect.</p>	Tech.	-	2	Under study	...

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
III. OTHER PROJECTS PERTAINING TO THE SUBJECT					
17. <u>Agriculture, forestry and fisheries</u>					
UNBEA B.4.(b) Measures and effects of land reform. Study of measures in the field of land reform as they affect patterns of production, standards of living of the rural population, the effects of measures already taken on employment and output in agriculture and general economic development.	Econ.	FAO, ILO	1	In progress	ECOSOC XXII session 1956 (annual report)
ECAFE 11-02 Agricultural development and planning. (In co-ordination with projects 02-01 and 02-05; see under "1. Planning and programming".) Studies of agricultural development and plans, including (a) The agricultural aspects of economic development planning; (b) Relation between agricultural and industrial development; (c) The role of the village community in agricultural development and economic aspects of community development.	Econ.	FAO	1	Deferred	First report in 1957
ECAFE 33-02 Rural electrification. (See under "16. Power, water resources".)					
ECE 01.2.1 Development problems of southern Europe. (See also under "1. Planning and programming" and under 19) (a) Study and completion of model village in tobacco-growing region of eastern Macedonia, Greece; (b) Study of reforestation problems in southern Europe; (c) Problems of agricultural development in southern Europe.	Pilot Tech. Soc. Econ. Tech. Meet.	UNTAA, UNBSA FAO	2 2	Ready to launch Advanced	- Report to 11th session ECE (April 1956)
	Econ. Tech. Meet.	FAO	2	Advanced	Report to 11th session ECE (April 1956)
ECE 02.2.1 Studies on quality standards of perishable foodstuffs. Standards have been drawn up for a number of vegetables, fruits and eggs. Work is continuing on other foodstuffs, including fish.	Tech.	Governments, FAO	2	In progress	...
ECE 02.2.2 Standard conditions of sale. Ad hoc groups of experts will establish standard conditions of sale for cereals and citrus fruits. The secretariat is preparing preliminary drafts which will serve as a basis for discussion at the first meetings of these groups.	Tech. Meet.	FAO	2	In progress	...
ECE 02.2.3 Mechanization in agriculture. An ad hoc working party of experts of interested governments will examine the following aspects of mechanization in agriculture: The harvesting of cereals, studying especially the results obtained in moist climates and humid periods; The harvesting, baling, transport and storage of hay; Mechanization of dairy farms. (See also ECE 05.1.1 under item 10).	Party Tech.	Governments	2	...	...

Project	Nature of work	In co-operation with	Pri- ority rating	Stage of work	Time for completion
17. <u>Agriculture, forestry and fisheries</u> (continued)					
ECE 04.1.5 Rural electrification. (See under "16. Power, water resources".)					
ECE 09.1.5 Forest working techniques and training of forest workers. (a) Methods of work in logging; (b) Mechanization in forestry work; (c) Training of forest workers and accident control.	Tech. Econ. Meet.	Governments, FAO, ILO	1	...	...
ECE 09.3.1 Studies on the more rational utilization of wood. Reducing waste in the forest and ensuring the fuller use of by-products in the wood-consuming industries.	Tech.	Governments, FAO	2	...	...
ECLA 15 Agricultural development programming in individual countries and technique of agricultural programming. This project is being carried out partly through studies of individual countries and technique of programming. (See ECLA 3(a) under "1. Planning and programming".)	Econ.	-	1	In progress	...
ECLA 18 Study of productivity of labour and of capital in agricultural production.	Econ.	-	2	In progress	1957
ECLA 19 Study of the possibilities of increasing investment in agriculture.	Econ.	...	2	In progress	1957
ILO Committee on Work on Plantations	Soc. Econ. Tech.	-	1	Continuing activity	-
FAO Ec.3.2. Agricultural development planning (see under item 1. "Planning and programming").					
FAO Survey and appraisal of world agricultural, fishery and forestry resources in relation to needs.	Econ. Tech.	Governmental and inter-governmental agencies	1	To be initiated in 1956/57	...
FAO The peaceful uses of atomic energy in agriculture and food production	Tech.	Governmental, intergovernmental and specialized agencies	1	To be initiated in 1956/57	...
FAO Ec.3.7 Marketing of agricultural products Organization, handling methods, grading, packaging, transport and storage facilities and costs.	Inf. Econ. Train. Adv. TA.	Governments	1	Continuing activity	-
FAO Ag. Storage and processing of rice A meeting of an <u>ad hoc</u> working group is to be held in 1956 for the purpose of studying, and preparing recommendations on improvement in storage and processing of rice in order to reduce losses; to be submitted to the International Rice Commission. Another <u>ad hoc</u> working group considers the problem of mechanization in rice production.	Meet. Tech. Adv.	Governments	1	To be held in 1956	-

Project	Nature of work	In co-operation with	Pri- ority rating	Stage of work	Time for completion
17. <u>Agriculture, forestry and fisheries</u> (continued)					
FAO Ag.3.6 Farm machinery and small hand tools					
(a) Mechanization in agriculture; Papers on "Essential Procedures for the Success of Farm Mechanization" and "Recommended Agricultural workshops with Equipment for the Service and Repair of Farm Machinery" are being prepared.	Tech.	-	1	In progress	...
(b) Small Implements Centres; Tools and implements are being made available to selected agricultural institutions to demonstrate, test and report on the suitability of these items under local conditions.	Inf.	Various agricultural institutions	1	Continuing activity	-
(c) Regional Meeting on Agricultural Machinery; The meeting considered the following questions, among others: (a) the most efficient methods of training machinery operators, maintenance and repair technicians for nationally sponsored programmes and (b) machinery workshop practices.	Meet.	...	2	1955	-
(d) Technical reference library; It is proposed to initiate the collection of technical reference material for loans to Member Governments.	Inf.	Governments	1	In progress	...
(e) Provision of advice to governments on agricultural engineering, in particular mechanization of rice production.	Tech. Adv.	-	1	Continuing activity	-
FAO Fi.2.4 Fish marketing. Collection of material on fish marketing, for publication and distribution, is scheduled for 1955.	Inf.	Governments	2	In progress	1955
FAO Fi.3.4 Handling, processing and distribution of fishery products.	Inf.	-	1	Continuing activity	-
FAO Fi.4(1) Fisheries and technology. Material on the technological and engineering aspects of fishing boats and gear are published annually in the <u>World Fisheries Abstract</u> .	Tech.	-	1	Annual publication	-
FAO Fi.4.3 Fishing gear and methods. A handbook on fishing gear and methods is planned, possibly for publication in 1957.	Tech.	National experts	2	In progress	1957
FAO Fi. Fishing boats. "Fishing Boats of the World". Report on the FAO Fishing Boat Congress 1953. Deals with the design and construction of fishing craft of all sizes, engines and deck gear, throughout the world (Published 1955). Fishing Boat Tank Test Catalogue: 150 watersheets, dealing with tank test of fishing boat models, for the use of naval architects and boat builders (Published 1955).	Tech.	National experts	1	Continuing activity	-
FAO Fo. World Forest Resources. Information based on country replies to questionnaires.	Econ. Tech.	Governments	1	Published 1955	-
FAO Fo. Primary forest production. A World Forest Planting Manual is being issued in sections, to guide the establishment of forests as a source of wood for industrial as well as domestic purposes. Sections have been prepared for arid zones in the Near East and tropical Africa. Similar sections are in preparation for tropical Asia, tropical Latin America, temperate Asia and temperate Latin America.	Tech.	...	1	Published 1955	-
FAO Fo. Third Conference on Wood Technology (May 1954)	Tech.	Governments	1	Published 1955	-

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
17. <u>Agriculture, forestry and fisheries (continued)</u>					
FAO Fo.3.4 Forestry: Technology and equipment. In addition to statistics on forest products, the organization collects data pertaining to improvements in the processing of forest products. Similarly, material on equipment is collected and periodically published for general information.	Stat. Inf.	-	1	Continuing project	-
FAO Fo.4.3 Forestry: Production and distribution. Studies are being conducted on production and distribution policies and marketing problems. These are published in the quarterly or commodity bulletins.	Tech.	-	1	Continuing project	-
18. <u>Construction and housing</u>					
UNESA-SC Co-operation is continuing with the inter-American Housing Centre which operates in Bogotá, Colombia, under the auspices of the Organization of American States.					
(a) One expert has been assigned to demonstrate developmental research methods in housing construction.	Tech. TA	ECLA UNTAA OAS	1	Continuing project	...
UNESA-SC 17 Housing conditions and programmes.	Econ. Tech. Soc.	Regional economic commissions	1	Continuing project	-
(a) Information on conditions of housing and programmes for their improvement will continue to be analysed for use in the Report on the World Social Situation, the International Survey of Programmes of Social Development, and Regional Reports. Current methods and practices of mobilizing self-help and co-operatives, will also be included in this project.					
(b) Efforts to devise unified statistical methods for measuring housing conditions will continue in close collaboration with UNSTAT and ECE.					
UNESA-SC 18 Financing of housing and community improvement programmes					
(a) Study and assembling of information on the feasibility of financing of housing programmes from external sources as, for example, by means of mortgage, and to include such information in the report prepared in compliance with General Assembly resolution 824 (IX) on the international flow of private capital	Soc. Econ. Adv.	Regional economic commissions	1	Under consideration	...
(b) Regional meetings of experts on the financing of housing and community improvement programmes to be convened in 1956 and 1957	Soc. Econ. Tech. Adv.	Reg. econ. com., Specialized agencies, Inter-Govt. Org., NGO's	1	To take place in 1956/1957	1957

Project	Nature of work	In co-operation with	Pri- ority rating	Stage of work	Time for completion
18. <u>Construction and housing</u> (continued)					
(c) Preparation of material describing (i) existing possibilities and appropriate sources for the financing of housing and community improvement programmes, as part of economic and social development in general, and (ii) special methods designed to bridge the gap between the cost of, and the ability of low-income families to pay for adequate housing.	Soc. Econ. Tech. Adv.	Reg. econ. com., Specialized agencies, Inter-Govt. Org., NGO's	1	Under consid- eration	1957
(d) Non-profit housing seminars; taking place under the auspices of the Danish Government.					
(i) A meeting held in 1954 was attended by participants from Latin America.	Sem.	UNTAA OAS	2	Report completed Dec. 1955	-
(ii) A similar meeting will be held in 1956 for countries of Asia and the Far East	Sem.	UNTAA ECAFE		Under consid- eration	...
UNBSA-SC 19 Extension of housing for low-income groups. Plans have been worked out with the governments concerned to establish a regional housing centre in Indonesia to deal with questions arising in hot and humid tropical areas, and a second regional housing centre will be established in India for the study of similar problems in hot and dry tropical countries. These centres will be devoted to research and training; practical results of the studies on factors influencing building costs and to improve quality will be utilized by these centres, as well as in rendering assistance to individual governments.	Soc. Econ. Tech. Train. Adv.	Governments, ECAFE UNTAA	1	In progress	...
UNBSA-SC 20 Physical planning. A comprehensive study on current trends in regional planning will be undertaken during 1955-57 by a private research institution in the United Kingdom in close co-operation with the Secretariat, and will be published as special issue of "Housing and Town and Country Planning". It is planned to use this study as a background paper for the meeting on Post-war Asian Urbanization.	Tech. Soc.	NGO's	1	In progress	1957
ECAFE 34-01 Housing and town and country planning and building: ...					
(b) Collection and dissemination of information on technical problems of housing and building materials, results of research, experimentation and demonstration on building materials, construction methods, types of houses, standardization, aided self-help methods, capital cost and other aspects of manufacture of new building materials.	Inf. Tech. Adv.	UNTAA, ILO, FAO, UNESCO and WHO	1	Periodical notes being issued	-
ECAFE 34-02 Guiding principles for housing standards and building codes for ECAFE countries. Regional study related to the global study being undertaken by Headquarters.	Tech.	UNBSA	2	Preliminary report completed in 1955	Final study 1956
ECAFE 34-03 Study of building materials in the ECAFE region. Technical analysis of the manufacture and use of various building materials in the region.	Tech. Adv.	UNBSA, ILO, FAO, UNESCO and WHO	2	In progress	1956

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
18. Construction and housing (continued)					
ECAFE 34-04 Regional building centres. Assistance to interested countries in the preparation of schemes for the establishment of regional building centres in the arid and humid tropical zones of the region. (See also UNBSA-SC 19 above.)	TA Adv.	UNTAA and other agencies	2	Centres established; further assistance being given by ECAFE and UNTAA	1956
ECAFE 34-05 Periodic review of the housing situation and housing and building programme in the region, in relation to economic and social developments.	Econ.	-	3	Deferred	...
ECE 06.1.2 Reduction of the cost of building. The projects at present being undertaken are as follows: (a) Model building codes and regulations. The Sub-Committee keeps under review the progress being made towards the revision and unification of building codes and regulations; (b) Contract practices. An examination of existing contract practices designed as a basis for mutual exchange of information and the improvement of present methods where appropriate; (c) Trends in mechanization. The Sub-Committee reviews developments in the mechanization of building operations; (d) Cost of various types of construction. A comparative study of the cost of different types of house construction, with particular reference to such factors as: (i) height; (ii) area; (iii) number of rooms; (iv) location; (v) quality of materials in construction; (vi) standard of internal appointments and equipment (this study being undertaken by the CIB, acting as rapporteur); (e) Standardization and modular co-ordination. Efforts to promote standardization and modular co-ordination as a basis in the first instance for an exchange of information, and ultimately for the unification of approach between countries. (f) Pre-fabrication: An inquiry on developments in prefabrication in house construction, the scope of which remains to be defined at the next session of the appropriate working party.	Tech. Econ.	Governments and international organizations	1	In progress	...
ECE 06.2.1 Assistance to less-industrialized countries. The object of the project is to assist governments of the less-industrialized countries to develop and expedite their housing programmes.	TA	Governments	2	Preparation of report for the next session of the Housing Working Party	...
ECE 06.2.2 Reinforced and pre-stressed concrete. A proposed comparative technical and economic study of the use of pre-cast concrete and of concrete cast by the continuous process in civil construction in the countries of Europe.	Tech. Econ.	Governments	2	...	...
ILO Manual on Co-operative Housing.	Tech.	-	2	In progress	...
UNESCO Seminar on post-war Asian urbanization. A seminar on urbanization in the ECAFE region will be held in Bangkok. Various papers will be discussed, including recent trends and the material mentioned in the project: "UNESCO. Social consequences of urbanization resulting from industrialization" (see under "6B. Industrial development, social aspects") (see also UNBSA-SC 6 and ECAFE 02-03 under "4. Manpower, social and related aspects").	Sem. Econ. Tech. Soc.	ECAFE ILO	2	Planned	1956

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
19. Transport					
UNTC Development of transport in the Middle East. Description of existing facilities and assessment of transport requirements for economic development.	Econ.	-	2	In progress	1956
UNTC Economic integration of Central America. The Division of Transport and Communications co-operates in certain aspects of this project. At present it is engaged in preparing a programme for: (a) Regulation of international road traffic and transport in the region. (b) Techniques and regulations for the improvement of maritime and port services, examination of the problem of freight rates and research to determine the feasibility of establishing a Central American merchant fleet.	Econ. Tech.	ECLA UNT7A	2	In progress	1956-1957
ECAFE 41-01 Collection, analysis and dissemination of information with regard to railways, highways and inland waterways, including transport statistics, library service, quarterly "Transport Bulletin" and "Railway Statistics Bulletin".	Inf.	-	1	-	Quarterly
ECAFE 41-02 Co-ordination of transport. Further studies on specific aspects of the co-ordination and integrated development of inland transport.	Tech. Adv.	ICAO, as necessary	2	In progress	1955-1957
ECAFE 41-03 Statistical study of performance of transport systems with a view to obtaining maximum efficiency and full utilization of all available resources.	Tech.	-	2	Interim report issued 1955	Final report: 1956
ECAFE 41-04 Refrigerator Inland Transport.	Tech. Adv.	-	2	In progress	Two years
ECAFE 42-01 Road construction and maintenance. Economics of highways engineering; final report and detailed studies and recommendations on the following aspects: (a) Water-bound macadam construction; (b) Construction and maintenance of low-cost roads and soil stabilization; (c) Bituminous construction; (d) Current methods of highway financing in the ECAFE region; (e) Current methods of highway administration in the ECAFE region.	Tech.	-	1	Report is issued: 1955	-
	Tech.	-	1	First report issued 1955	Final report: 1956
	Tech.	-	1	Report issued: 1955	-
	Econ.	-	1	In progress	1956
	Tech.	-	1	In progress	1956
ECAFE 42-04 Uniform design standards and specifications for roads and bridges (See under "7A. Industrial productivity: Economic and technological aspects").					
ECAFE 42-05 Mechanization of road construction and maintenance. Examination of the possibility of a demonstration project using mechanized equipment.	Pilot	UNTAA (proposed)	3	Deferred	Two years
ECAFE 43-01 Improvement of inland water transport. (a) Examination of improved methods of river and canal conservancy for navigation; (b) Dissemination of information regarding methods of improving efficiency of inland water transport.	Tech.	UNTAA, if necessary	1	...	...
	Inf.	UNTAA, if necessary	1	...	...

Project	Nature of work	In co-operation with	Priority rating	Stage of work	Time for completion
19. Transport. (continued)					
ECAFE 43-02 Improved design and operation of craft, including use of pusher craft and towing methods. Demonstration/pilot projects.	Pilot	UNTAA	2	...	1955-1956
ECAFE 43-04 Training centre for inland water transport personnel. Regional centre for the advanced training of diesel marine mechanics.	Train.	ILO	2	Centre to open in 1956	-
ECAFE 43-05 Inland ports. Study of technical installations and services, control, administration and financing of inland ports in Europe and the United States of America; recommendations for the region, including model legislation.	Tech.	-	2	Interim report: 1955	Final report: 1956
ECAFE 43-06 Model government organization to deal with inland water transport and river and canal conservancy. Study of advantages and disadvantages of existing systems in the world; recommendations of suitable structure and terms of reference for government organization.	Tech.	-	2	Interim report: 1955	Final report: 1956
ECAFE 44-01 Railway Training Centre for Operating and Signalling Officials.	Train.	UNTAA	2	...	1955-1958
ECAFE 44-02 Diesel locomotives and railcars.	Tech.	-	2	First report of expert group, 1955	1955-1958
ECAFE 44-03 Improved turnaround of rolling stock.	Tech.	-	2	Interim report 1955	1955-1956
ECAFE 44-06 Standardization of rolling-stock. (See under "7A. Industrial productivity: Economic and technological aspects").					
ECAFE 44-07 Repair and maintenance of rolling-stock in workshops.	Tech. Adv.	-	3	Deferred	One year
ECAFE 44-09 Study of railway freight rates.	Tech.	-	3	Deferred	Two years
ECS 01.2.1 Development problems of southern Europe (See also under "1. Planning and programming").					

(d) Study of highway development in southern Europe.	Econ. Tech. Meet.	-	2	Initial phase: first meeting Oct. 1955	Preliminary findings in report to 11th session ECE (April 1956)
ECIA 6. Study of transport problems.					
The first phase of the work is being devoted largely to the analysis and projection of transport requirements in relation to the studies of economic development in individual countries.	Econ. Tech.	-	1	In progress	...
IIA Inland Transport Committee					
At its forthcoming session, this committee will discuss methods of improving organization of work and output in ports.	Soc. Econ. Tech.	-	1	Continuing activity	-

Chapter 5

DISCUSSION AND COMPARISON OF THE PROJECTS

In the tables of chapter 4 the projects are listed by organizations under each subject item; they are now regrouped, within each subject item, from a functional point of view.^{1/} As mentioned earlier, projects in categories "deferred", "not yet initiated", or "under consideration" are generally omitted.

I. PROJECTS RELATING TO ECONOMIC DEVELOPMENT IN GENERAL

1. Planning and programming

The projects carried out by the commissions' secretariats, most of which are continuing, are both regional and national in scope. The inclusion in its terms of reference of the responsibility of ECAFE to perform advisory services^{2/} to countries of the region at their request was motivated by the fact that "while regional problems were undoubtedly important and should continue to be the main concern of ECAFE, most of the countries in the region were at a stage of development where national projects loomed naturally large in their scheme of things. For this reason ECAFE should give due emphasis to projects relating to national problems, especially those which are common to several countries".^{3/} The current ECAFE project^{4/} thus consists mainly in country studies and includes dissemination of information, analysis and rendering of economic and technical advisory services to Governments.

The main ECLA project^{5/} also concerns primarily specific countries in the region. As mentioned in the Report of the Sixth Session of ECLA,^{6/} ECLA's

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- ^{1/} In the case of items 15, 16, 17 and 18, where headings comprise several categories of projects, further breakdowns are also made.
- ^{2/} Not overlapping those rendered by specialized agencies or UNTAA. Article 1 (e) of the terms of reference of ECLA has been interpreted as giving this commission the same responsibility.
- ^{3/} ECAFE, Annual Report 1954/55 (E/2712, E/CN.11/407), page 22.
- ^{4/} ECAFE 02-01.
- ^{5/} ECLA 3.
- ^{6/} E/2796/Rev.1, E/CN.12/387/Rev.1.

"activities have been gradually evolving on a number of different planes, and have embraced not only the over-all programming of economic development, but also a series of more specific problems...". In particular, more importance has been given to studies of the economic development of individual countries, carried out with the collaboration of the Governments concerned, which might serve to guide them in the preparation of their development programmes.

Both ECAFE and ECLA^{1/} are developing, in the course of these country studies, a body of techniques of programming economic development and of projecting economic trends of these countries with a view to assisting Governments in the preparation of future development programmes or the revision of existing ones.^{2/} These studies are still preliminary; they are essentially methodological in character and are not to be regarded as development programmes for the countries concerned.

UNBEA's project^{3/} also deals with the study of techniques of programming. Whereas the purpose of ECAFE and ECLA studies is the development of techniques for the formulation of national policies of economic development, the UNBEA project aims at extracting from the experience of certain countries engaged in economic programming basic principles and techniques susceptible of more general application. Another aspect of this project parallels to some extent the work of the commissions, inasmuch as it deals with the Middle East and African regions, where no commissions are set up.

Among other continuing projects of ECLA in this and related fields are: a project dealing with Central American economies, which includes studies on industry, agriculture, transport, etc.; this project also relates to the activities of research and training institutes.^{4/} Another ECLA project^{5/} relates

^{1/} Most references to organizations, in this chapter, are to be construed as referring to their secretariats.

^{2/} ECAFE 02-01 (b) and (d); ECLA 3 (a).

^{3/} UNBEA B.1 (a).

^{4/} ECLA 4, carried out jointly with UNTAA.

^{5/} ECLA 5, carried out jointly with UNTAA.

to a training programme for economists, the core of which is the study of programming techniques.

ECE's project on the development problems of southern Europe^{1/} consists in giving assistance to a special group of experts nominated by the Governments of Greece, Italy, Turkey and Yugoslavia, to consider problems of economic development of these countries and to make appropriate recommendations. This group is preparing studies on long-term development country programmes as well as on specific projects.^{2/}

The UNSTAT Project consists in establishing a minimum programme for economic and social statistics that Governments require in order to plan and assess economic development.

The secretariats of the other agencies reviewed contribute, in their fields, to planning and programming of economic development of under-developed countries; their work is generally operational and is carried out under technical assistance programmes.

2. Financial and fiscal aspects

The current work under this heading is divided between UNBEA, ECAFE, ECLA and FAO. The projects of UNBEA, which are of an ad hoc nature, study both the fiscal and financial problems relating to the promotion of domestic and foreign private investment in under-developed countries. Two projects deal with the role of tax measures in promoting such investment: one is a general economic study, done in co-operation with Harvard University, while the other is carried out with particular reference to Latin American countries, in co-operation with ECLA.^{3/} Another project deals with the development of securities markets in under-developed countries.^{4/}

The projects of the commissions secretariats are continuing and are devoted to the study of monetary and fiscal policies for planning and promoting economic development. The ECAFE secretariat takes part in the activity of a working

^{1/} ECE 01.2.1.

^{2/} Some of the latter are listed under items 17 and 19.

^{3/} UNBEA E.6 and E.7.

^{4/} UNBEA E.14.

party of experts on the financial aspects of economic development which has been held yearly since 1951 with the co-operation of numerous organizations. The ECLA project analyses Government revenue and expenditures, fiscal policies and exchange and trade controls. An FAO study deals with the use of agricultural surpluses to finance economic development.^{1/}

Other organizations under the aegis of the United Nations directly participate in the financing of economic development of under-developed countries, or in the financing of rehabilitation of certain of these countries. Reference is invited to the statements of IBRD, UNRWA and UNKRA reproduced in the Appendix.

3. Trade, foreign investments

The terms of reference of all three commissions lay strong emphasis on their responsibility for "facilitating concerted action ... for maintaining and strengthening the economic relations of [the countries of their areas] both among themselves and with other countries of the world". The general work of the commissions in the field of trade is, however, beyond the scope of this survey. The ECAFE and ECLA projects listed correspond to the limited definition of the field under review.

While the projects concerning foreign investment classified under the previous item considered it from a fiscal and financial point of view, both the UNBEA and ECAFE studies listed here relate to its economic and legal aspects.^{2/} Among its projects relating to trade in selected commodities, ECAFE is carrying out a study of trade in capital goods.^{3/} ECLA's project relates to the terms of trade and their influence on the rate of economic development.^{4/}

4. Manpower, social and related aspects

The projects under this heading are essentially those of UNBSA, ILO, UNESCO and WHO. An explanation of the limited amount of work currently done in this field by the regional commissions is given in the part of chapter 2 dealing with their activities.

^{1/} FAO Ec.3.4 and 4.3.

^{2/} UNBEA A.2 and ECAFE 02-04 (a).

^{3/} ECAFE 37-04.

^{4/} ECLA 39.

The projects listed here consist in dissemination of information, research, setting of standards and legislation, and practical action. All have a direct or indirect bearing on the raising of productivity, real income and standard of living in under-developed countries.

UNBSA and ILO are engaged in projects dealing, respectively, with demographic and labour statistics and related statistical studies;^{1/} the two secretariats co-operate in certain of the latter, e.g. the project concerning definition and measurement of standards of living.^{2/} UNBSA is carrying out several projects concerning the interrelationship of demographic, economic and social factors of economic development.^{3/} The scope of these studies ranges from regional to local; one of the latter type, which is based on a field survey made in Mysore State, India,^{4/} is the first in a series of pilot projects to be carried out in various under-developed countries or groups of countries.^{5/} These projects will be carried out in close co-operation with the Governments concerned and will aim at providing the information needed for economic planning. UNBSA also organizes, and participates in, regional population seminars.^{6/} Other activities of UNBSA relate to urbanization, family welfare services and problems of criminality.^{7/} ECAFE's and ECLA's projects concerning the relationship between population growth, manpower requirements and economic development^{8/} are research studies aiming at bringing forward the practical aspects of the subject.

^{1/} UNBSA-FC 1 (a) and ILO (a) through (e).

^{2/} UNBSA-SC 5.

^{3/} UNBSA-FC 1 (d), and 2 (b) and 3.

^{4/} UNBSA-FC 2 (b); project of the Government of India, carried out by UNBSA jointly with UNTAA.

^{5/} UNBSA-FC 2 (1) and 4.

^{6/} UNBSA-FC projects for Asia and the Far East and Latin America, carried out jointly with UNTAA.

^{7/} UNBSA-SC, UNBSA-SC 6, 22, 23 (d) and 34.

^{8/} ECAFE 02-03 and ECLA 3 (e) and (f).

The setting of international labour standards and legislation is a basic continuing work of ILO. Current projects relate to protection of migrant workers, social conditions of indigenous populations, contract labour in the petroleum industry and social security in non-metropolitan territories. Labour questions in various industries are regularly examined by ILO's tripartite industrial committees. ILO is also associated in the foundation of Institutes for Labour Administration in Turkey and Mexico. Current research in the field of employment deals with the relationship between urban and rural employment and comparative employment potentials of different methods of production and their respective roles in industrial development. Another ILO study relates to the social aspects of urbanization. Projects such as ILO's "Guide to Manpower Surveys" and "International Classification of Occupations for Migration and Employment Placement" and those of UNESCO on the meaning and criteria of economic progress in Latin America and on the evaluation of technical assistance projects are intended for use as guides for practical assistance.

The general activity of WHO, here summarized in four projects relating to control and eradication of communicable diseases, public health assistance, nutrition and environmental sanitation and that of UNICEF are described in chapter 2. Nutrition projects are carried out by FAO, WHO and UNICEF, mainly in the form of technical assistance.

5. Other aspects

This item includes the continuing activity of the Department of Trusteeship and Information from Non-Self-Governing Territories and UNESCO's work in connexion with scientific congresses and seminars, and regional science co-operation offices.

II. PROJECTS RELATING TO INDUSTRIAL DEVELOPMENT

6. Industrial development in general

A. Economic and technological aspects

Industrial development is generally the central theme of economic development plans and programmes, so that the majority of the projects in this field - which are those of the regional commissions - are in fact included under item 1 "Planning and programming". The projects listed here refer to more specific studies in this field.

The UNBEA projects include the report on "Processes and Problems of Industrialization in Under-developed Countries" and the bibliography, survey and programme of work on industrialization and productivity; mention is also made of its work in connexion with technical assistance programmes and of the project on industrialization in the Middle East,^{1/} now under consideration. Other projects listed are undertaken by UNSTAT, WHO and IBRD.

B. Social and related aspects

While the purpose of most of the social studies listed under item 4 is to promote, directly or indirectly, better living standards, the projects listed here, which are carried out by, or under the sponsorship of, UNESCO, consist primarily in scientific studies of the social impact of industrialization. Most of these studies are now at the fact-finding stage; the information will form the basic documentation to be used by conferences, offices and centres with a view further to promoting research in this field and, eventually, aiding in the formulation of policies and extending practical action.

The activity of ILO and WHO in assisting in the establishment of industrial and occupational health and hygiene services may also be mentioned here. The relation of the general work of WHO with problems of industrialization is discussed in chapter 2 and in that agency's statement reproduced in the Appendix. The social aspects of industrial development are, of course, of general concern to ILO.

7. Industrial productivity

A. Economic, social and technological aspects

The impact, already mentioned in chapter 3, on productivity and, in particular, on industrial productivity, of the general activity of the secretariats of all organizations must again be emphasized here. The discussion which follows is, however, limited to specific projects in this field.

Most of these projects come under two distinct headings: standardization of various products and methods and techniques of raising productivity in certain manufacturing industries.

^{1/} UNBEA B.1 (b) (ii).

Two ECAFE projects relating to standardization are at present in progress: one deals with merchandise standardization as an aspect of promotion of trade, and the other concerns standards and specifications for roads and bridges.^{1/} The ECAFE secretariat also serves continuously as a clearing house of information on standardization. No ECLA projects in this field are under way at present, but two studies are being planned. A meeting was held in 1955 by FAO for the purpose of preparing standards on milk quality control.

The study of methods and techniques of raising labour productivity is carried out by ILO, in the form of handbooks, discussion both by experts and by tripartite conferences, assistance given to national productivity centres and other technical assistance.^{2/} The social and human aspects of industrial productivity are also considered in the productivity studies of the ILO secretariat, as well as by ILO's industrial committees.^{3/} Several economic studies are now under consideration by UNBEA^{4/} and a comparative study of sociological, psychological and cultural factors affecting productivity is to be undertaken in 1956, under the sponsorship of UNESCO, by the International Social Science Council, in consultation with ILO.

^{1/} ECAFE 37-10(a) and 42-04.

^{2/} UNTAA is providing assistance in connexion with five technological centres and institutes.

^{3/} These aspects are discussed, for example, in ILO's report presented to the European Regional Conference of the ILO in January-February 1955, in the report on the nature and functions of national productivity programmes presented to the ECAFE working party on economic development in 1955 and in the report on the role of employers and workers in programmes to raise productivity in American countries being prepared for the Sixth Regional Conference of American States Members of the ILO (Havana, September 1956). It will be recalled that ILO's industrial committees are established for coal mines, metal trades, textiles, building, civil engineering and public works, chemical industries, iron and steel, inland transport and petroleum; another committee examines work in plantations. See ILO's statement in Appendix.

^{4/} UNBEA B.5(f).

B. Vocational and technical training

Both direct training and establishment of training centres are a continuing project of many of the organizations under review, and in particular of ECAFE, ECLA, ILO, FAO, UNESCO, WHO, UNICEF, UNRWA and UNKRA; close co-operation between secretariats, Governments and UNTAA is being maintained. The establishment of training and production centres for fundamental education, in particular, is a joint inter-agency project. The training given covers all the range from elementary schooling to advanced technical study.

C. Management aspects

This aspect of raising productivity is being given increasing attention by a number of organizations, notably ECAFE, ILO, FAO, UNESCO and IBRD. The ECAFE, FAO and UNESCO projects are mainly of a fact-finding and informative character. ILO's industrial committees examine this aspect in their study of productivity in various industries. The IBRD project aims at analysing the available practical experience for use by Governments in under-developed countries. The public administration programme of UNTAA also comes under this heading.

8. Mineral resources and mining

The projects in this field are economic and technical in character.

The only current economic study of general interest is the report on non-ferrous metals in under-developed economies submitted by UNBEA to the present session of the Council;^{1/} the survey of world iron ore resources,^{2/} which has the same general character, was brought to the attention of the Council at its nineteenth session.

The ECAFE studies dealing with regional economic and technical mining developments include the annual review of current mining activities,^{3/} an integrated study of the fuel economy and a compilation of existing regulations governing the mineral development of the region;^{4/} the last study is prepared in

1/ UNBEA B.3(a); document E/2798, United Nations publication, Sales No.: 1955.II.B.3.

2/ UNBEA project; document E/2655, United Nations publication, Sales No.: 1954.II.D.5.

3/ ECAFE 36-01.

4/ ECAFE 36-04 and 36-05.

co-operation with the Office of Legal Affairs at Headquarters. An annual review of regional economic and technical mining developments appears in ECLA's Economic Survey of Latin America.

All technical projects in the field under review are carried out, for the respective regions, by ECAFE and ECE. ECAFE's projects involve dissemination of information, research and technical advice to Governments. They include studies on selected mineral resources and on exploration, exploitation and utilization of lignite and other low-grade coals in the region, a standard classification of coal for regional use and the organization of a study tour of mining experts and geologists from the region to Europe including the USSR;^{1/} the last two projects were carried out in 1955 in co-operation, respectively, with ECE and UNTAA. Because of their technical character, most of these studies present an interest for countries outside the region. Similarly, although ECE's projects are prepared on the basis of information originating from European countries and with the interests of European countries in mind, their technical nature makes them more widely applicable. Current projects under way relate to consumption of solid fuels by consuming sectors and solid fuel utilization.^{2/} Projects on coal classification and coal in relation to other forms of energy^{3/} are at present under review or under consideration.

Both ECLA projects listed here^{4/} are in the "deferred" category. As mentioned above, mining developments are studied in the annual Survey, but, for various reasons, no specific studies in the field of mining are being carried out at the present time nor have there been any in recent years.

Two other deferred projects, this time on the ECAFE programme, may be mentioned because of their importance: one consists in convening an ad hoc working party to examine plans which countries are now undertaking or

^{1/} ECAFE 36-02, 36-03, 36-07 and 36-08.

^{2/} ECE 03.1.3 and 03.1.4.

^{3/} ECE 03.2.1 and 03.2.2.

^{4/} ECLA 32 and 33.

contemplating for the expansion of their aluminium industries;^{1/} the other would examine the possibility of encouraging expansion of joint research on low-grade coals and of assisting a country or some countries of the region in setting up a pilot plant for treating such coals including lignite.^{2/}

Continuing work is also carried out by ILO's Coal Mines Committee.

9. Iron and steel industries

In the same way as the projects under item 8, studies under this heading will be regrouped according to their nature and scope. These projects relate (a) to the purely economic aspects; (b) to both the economic and technical aspects; and (c) to the purely technical aspects of the iron and steel industries. All studies listed here are carried out by the regional commissions and all are essentially regional in scope. However, some of the economic studies and most of the technical projects are of a more general interest.

(a) Economic studies. One of the ECAFE studies listed under ECAFE 35-01 aims at formulating uniform statistical reporting methods;^{3/} two studies deal with intra-regional and inter-regional trade developments in iron and steel.^{4/} An ECE project concerns the determination of theoretical production capacity in the European iron and steel industry.^{5/}

(b) Economic and technical projects. The ECAFE projects under this heading involve dissemination of information, research and advisory services to Governments. ECAFE's annual review of the industry, the survey of market demand by product and the surveys of existing, proposed and possible facilities in the fields of alloy steels, ferro-alloys, etc. and of steel-transforming industries^{6/} come under the two first sub-headings. Technical information and research and rendering of advisory services to Governments are involved in two ECAFE projects dealing with economic and technical aspects of steel fabricating and processing

^{1/} ECAFE 36-10.

^{2/} ECAFE 36-11.

^{3/} ECAFE 35-01(h).

^{4/} ECAFE 35-01(k) and ECE 08.1.4.

^{5/} ECE 08.2.4.

^{6/} ECAFE 35-01(a), (b), (c) and (1).

industries, ore beneficiation, etc.^{1/} An important study conducted by ECE relates to the problem of substitution between steel and other metals and materials,^{2/} an inquiry which, in some respects, may be of special interest to under-developed countries.

(c) Technical projects. ECAFE's technical projects are carried out essentially with a view to rendering advisory services and assistance to Governments. Current studies relate to iron and steel foundries, rerolling mills, scrap classification and laboratory and research facilities;^{3/} this last project is undertaken in co-operation with UNESCO. ECE's technical projects relate to flat steel products, tubes and railway material.^{4/} The studies published by ECE on trends in steel technology^{5/} are prepared by national technical institutions and individual experts particularly with a view to helping the less industrialized countries in the formulation of their steel policies. Developments in iron and steel industry in Latin America are studied by ECLA in its annual Economic Survey. A specific ECLA project in this field is classified under item 10, "Engineering industries", as it deals primarily with steel transforming.^{6/} a conference of experts on steel-making and transforming industries which is to be held in Sao Paulo, Brazil, in June 1956, is now being prepared; the conference will discuss steel-making processes in both their economic and technological aspects.

Other important projects, most of them technical in nature, are now planned by ECAFE. These projects are of high priority and their carrying out is subject to budgetary possibilities. It is envisaged to publish an annual Iron and Steel Bulletin, to study iron and steel manufacturing processes in Europe and North America and, if possible, to arrange a group visit to these regions to

1/ ECAFE 35-01(i) and (j).

2/ ECE 08.2.3.

3/ ECAFE 35-01(d), (e), (f) and (g).

4/ ECE 08.1.3, 08.2.1 and 08.2.2.

5/ ECE 08.1.2.

6/ ECLA 26.

draw up iron and steel specifications, to launch a scrap-collection drive, and to build pilot plants for the production of iron without coke.^{1/} Market research studies are considered but are in the "deferred" category.^{2/}

Continuing work is also carried out by ILO's Iron and Steel Committee.

10. Engineering industries

Current projects under this heading consist in completing the preparations for two meetings to be convened, respectively, by ECE and ECLA. The first relates to agricultural machinery, with special reference to increasing production and enlarging trade.^{3/} The second, the conference of experts already referred to under item 9,^{4/} will examine the present status and development prospects of the steel-transforming industries in a number of Latin American countries and discuss the main production processes used in these industries. ECLA is revising and completing country studies on iron and steel-transforming industries to be used as background documents for this conference.

Continuing work is carried out by ILO's Metal Trades and Building, Civil Engineering and Public Works Committees.

11. Chemical industries

A project in this field is being carried out by ECLA. It is a pilot study dealing particularly with the production of basic chemicals such as are extensively imported in Latin America; its aim is to examine the possible impact of the changes that are taking place in technology on the position of the chemical industry in the region.

Continuing work is carried out by ILO's Chemical Industries Committee.

12. Textile industries

A current project listed is a preliminary study of FAO on economic and technological aspects of the world hard fibre situation.

Continuing work is carried out by ILO's Textiles Committee.

1/ ECAFE 35-02, 35-03, 35-04, 35-05 and 35-06.

2/ ECAFE 35-08.

3/ ECE 05.1.1.

4/ ECLA 26.

13. Food processing industries

Current studies in this field are carried out by FAO in co-operation with the secretariats of a number of agencies, notably UNICEF and WHO; they deal with livestock and fisheries products, individual agricultural commodities and food technology.

14. Other manufacturing industries

The ECLA project concerning the activity of the Joint FAO/UNTA/ ECLA Expert Advisory Group to assist countries in the development of the pulp and paper industries^{1/} stems from the meeting of experts held in Buenos Aires in October-November 1954 on this topic. Work is continuing on a study on pulp and paper prospects in Latin America. A study of FAO deals with the processing of rubber.

15. Cottage, small-scale industries, community development and co-operatives

(a) Cottage, rural and small-scale industries. The listed projects relating to cottage, rural and small-scale industries are being carried out by the secretariats of ECAFE, ILO and FAO; most of them involve dissemination of information, research and technical assistance. UNRWA's operations in this sector involve financial rather than technical assistance.

ECAFE has long been interested in these industries and has held several working parties on this subject with experts and representatives and specialized agencies. A current ECAFE project aims at disseminating information concerning various industries, particularly hand-loom textiles;^{2/} another deals with promotion and co-ordination of research and experiments by countries of the region;^{3/} current studies are centred on the ceramics industry; research is also being carried out on production and marketing techniques of selected cottage industries.^{4/} A study of the economic aspects of cottage and small-scale industries^{5/} has been prepared by ECAFE in 1955 and case studies of selected industries are now under consideration. A study of common facility services

1/ ECLA 28.

2/ ECAFE 32-01.

3/ ECAFE 32-02.

4/ ECAFE 32-05.

5/ ECAFE 32-03.

was made in 1955.^{1/} The FAO technical studies on rural industries^{2/} are of a fact-finding nature and are carried out with a view to assisting government planning. The relevant activity of ILO and UNRWA is mostly in the field of technical assistance.

(b) Community development. This field is being studied by UNBSA in co-operation with Governments, regional commissions and specialized agencies with a view to giving support to technical assistance activities. The report on "Social Progress Through Community Development"^{3/} is a comprehensive study of programmes, methods and techniques in the field of community development. Meetings of experts and government officials from countries having similar social and economic problems are now arranged or envisaged^{4/} to plan programmes of expansion of community development projects. A regional survey of community development in Africa, south of the Sahara, is to start in 1956. A project of ECAFE on community development in Asia and the Far East is in the "deferred" category.^{5/}

(c) Co-operatives. A current project concerning the organization of a regional meeting is carried out by ILO in collaboration with the Organization of American States.

16. Power, water resources

The projects under this heading may be classified into three main groups:

(a) power, including conventional and unconventional sources and the special aspect of rural electrification; (b) water resources utilization and development; and (c) multi-purpose projects.^{6/}

(a) Power. A comparative study of the economic aspects of conventional sources of energy is being prepared by UNBEA;^{7/} the study is made by regions and

^{1/} ECAFE 32-04.

^{2/} FAO Ag.7.2.

^{3/} UNBSA-SC 11; United Nations publication, Sales No.: 1955.IV.18.

^{4/} UNBSA-SC 12(a), (b) and (c).

^{5/} ECAFE 11-02(c) under item 17.

^{6/} Studies on flood control and hydrology are not included here.

^{7/} UNBEA B.2(g)(i).

is worldwide in scope. An annual review of electric power development in Asia and the Far East is published by ECAFE.^{1/} The secretariat of this commission is also studying the basic principles and methods for assessing the hydroelectric potential of individual countries in the region.^{2/} Other work carried out by ECAFE includes the preparation of a group visit of electric-power experts of the region to Europe and North America, and the setting of standards for electrical plant and equipment and standardization of system practices.^{3/} ECE's project concerning exports of electric power from Yugoslavia^{4/} has now reached the final co-ordination stage. A group of experts is extending its general study on the gross hydroelectric potential of European countries to cover several European under-developed countries.^{5/} ECLA is engaged in a broad survey of energy resources in the region.^{6/} The study aims both at appraising existing resources and projecting future requirements and demands.

In the field of rural electrification, two projects, of ECAFE and ECE,^{7/} aim primarily at giving assistance to countries in preparing programmes with particular reference to the application of electricity in rural industries.

The relatively new field of unconventional sources of energy is given increasing attention by several organizations. UNBEA has presented to the International Conference on Peaceful Uses of Atomic Energy a report on some economic implications of nuclear power for under-developed countries^{8/} and is now engaged in a study of other unconventional sources, notably solar, wind, geothermal and tide energy;^{9/} work is continuing on the economics of nuclear

^{1/} ECAFE 33-01.

^{2/} ECAFE 33-03.

^{3/} ECAFE 33-04 and 33-05.

^{4/} ECE 04.2.1.

^{5/} ECE 04.2.3.

^{6/} ECLA 29.

^{7/} ECAFE 33-02 and ECE 04.1.5.

^{8/} Document P/893.

^{9/} UNBEA B.2(g)(ii) and (iii).

power development. Both ECAFE and ECLA plan to disseminate information on the uses of atomic energy for industrial purposes.^{1/} The question of production of electric power by nuclear reactors will be placed on the agenda of ECE at its thirteenth session; the secretariat is now engaged in preparing a report for that session.^{2/} Two UNESCO projects are also devoted to the study of unconventional energy sources: A preliminary scientific study on the industrial use of energy derived from the sun and wind was prepared under the programme of promotion and co-ordination of research for the development of the Arid Zone. UNESCO also sponsored the establishment of the European Organization for Nuclear Research; assistance in the field of nuclear physics is being granted or planned to be granted, inter alia, to several under-developed countries. Preparatory work is now being done by WMO and a panel of experts in studying meteorological elements as source of power. WMO also has under way a study of the application of meteorology to problems in the atomic energy industry, in particular the latter's air pollution aspect.

(b) Water resources utilization and development. Among UNBEA projects, two study the international and inter-agency work done in the field, and another deals with national water boards;^{3/} another project is specifically devoted to the study of industrial uses of water;^{4/} a fifth project surveys water resources in Africa.^{5/} An ECLA project relating to a preliminary examination of multiple water resource utilization in Latin America is to be undertaken in 1956.^{6/}

(c) Multi-purpose projects. Two projects are under way surveying regional activities of this type, in Asia and the Far East and in Latin America.^{7/}

^{1/} ECAFE 33-01 and ECLA 29.

^{2/} ECE/C4.2.2.

^{3/} UNBEA B.2(e), (f) and (b).

^{4/} UNBEA B.2(a).

^{5/} UNBEA B.1(c)(11).

^{6/} ECLA 30..

^{7/} ECAFE 21-01 and ECLA 30.

III. OTHER PROJECTS PERTAINING TO THE SUBJECT

17. Agriculture, forestry and fisheries

As has been mentioned earlier, projects exclusively concerned with the promotion of agriculture are omitted from this survey. The projects listed under item 17 are directly related to industrial development and improvement of industrial productivity; however, as drawing the demarcation line is largely a matter of judgement, many of these projects should be considered as illustrating the relevant activities rather than describing them fully. For a detailed description of the activity of FAO, which undertakes a large part of this work, reference is invited to its statement reproduced in the Appendix.

The listed projects relate to programming and planning of agricultural development, assessment of resources, setting of standards for foodstuffs, marketing of agricultural products, mechanization in agriculture, and technology, equipment and marketing in forestry and fishery.^{1/} Projects in these fields are carried out by the secretariats of the United Nations and of FAO. ILO co-operates in the fields of land reform, forest working techniques and training of forest workers; an ILO committee deals with work on plantations. The work programme of the United Nations Secretariat is developed and carried out jointly with FAO. The projects of UNBEA and the commissions' secretariats listed here are those for which these units are primarily responsible; the FAO projects listed are carried out under the responsibility of the secretariat of this agency.

(a) Programming and planning. FAO's role in this field has been mentioned in chapter 2. The general continuing fact-finding activity of this organization is to be expanded in 1956 in the undertaking of a survey and appraisal of world agricultural, fishery and forestry resources in relation to needs, with a view to facilitating planning and programming in agriculture as well as technical assistance operations. FAO's contribution to planning and programming emphasizes the balanced development of the agricultural and other sectors of the economy.

^{1/} Rural electrification is listed under item 16.

Another project to be initiated by FAO in 1956 will relate to the peaceful uses of atomic energy in agriculture and food production. In the work of the ECE group of experts on the economic development of southern Europe, considerable attention has been given to problems of agriculture and related activities.^{1/} Country studies of programming of agricultural development are carried out by ECLA, which is also engaged in special studies of productivity and investment in agriculture.^{2/}

(b) Standardization. Current studies are carried out by ECE on quality standards of perishable foodstuffs and on standard conditions of sale.^{3/}

(c) Marketing of agricultural products. FAO studies deal with the various aspects of this problem, including handling, grading, packaging, transport and storage.^{4/}

(d) Mechanization in agriculture. Projects are under way at ECE and FAO.^{5/} The FAO projects include organization of small implements centres, regional meetings on agricultural machinery and technical reference libraries and publication of handbooks; FAO also provides advice to Governments on agricultural engineering.

(e) Forestry and fisheries. ECE's projects on forest working techniques and FAO's work on appraisal of forestry and fisheries resources, technology, equipment processes, techniques and marketing are illustrated by a few examples.^{6/}

18. Construction and housing

(a) Construction. The projects listed are generally regional in scope; however, as they are technical in character, some may be of more than regional interest. The ECAFE current projects which are undertaken in co-operation with the secretariats of several organizations, include dissemination of information, research, notably in the field of building materials, and assistance in the

^{1/} ECE 01.2.1(a), (b) and (c).

^{2/} ECLA 15, 18 and 19.

^{3/} ECE 02.2.1 and 02.2.2.

^{4/} ECE 02.2.3 and FAO Ag.3.6.

^{5/} FAO Ec.3.7 and FAO Ag.

^{6/} ECE 09.1.5 and 09.3.1 and FAO Fi.2.4, Fi.3.4, Fi.4(1), Fi.4.3, FAO Fi., FAO Fo. projects, Fo.3.4 and Fo.4.3.

establishment of regional building centres.^{1/} ECE is carrying out a series of studies on reduction in cost of building; these and a special study on reinforced and pre-stressed concrete may be of more general interest.^{2/}

(b) Housing and planning. General continuing and ad hoc studies in this field are carried out by UNBSA; they include dissemination of information on housing conditions and programmes, co-ordination of housing research, analysis of trends and organization of, and participation in, seminars and housing centres.^{3/} A related project is carried out by ECAFE.^{4/} Preliminary work has been started by ECE on a project aiming at assisting governments of the less industrialized countries in developing and expediting their housing programmes.^{5/} In the more specialized field of co-operative housing, regional seminars are being organized by UNBSA and a manual is now being prepared by ILO. The inter-agency seminar on urbanization in the ECAFE region which is planned to be held in 1956 will deal with various aspects of the topic.

No projects on either construction or housing are undertaken by ECLA, as such projects are carried out for the region by UNBSA, UNTAA and the Pan-American Union.

Both UNRWA and UNKRA are active in promoting construction and housing as part of their rehabilitation effort.

19. Transport

The majority of current projects under this heading are undertaken by ECAFE and relate to inland transport: highways, inland waterways and railways; they consist in dissemination of information,^{6/} co-ordination of inland transport^{7/}

^{1/} ECAFE 34-01, 34-03 and 34-04.

^{2/} ECE 06.1.2 and 06.2.2.

^{3/} UNBSA-SC (a) and (b), UNBSA-SC 17, 18 and 19.

^{4/} ECAFE 34-02.

^{5/} ECE 06.2.1.

^{6/} ECAFE 41-01.

^{7/} ECAFE 41-02.

and technical studies,^{1/} all aiming at rendering assistance to the countries of the region. In addition to these studies, ECAFE is working on the establishment of training centres for inland water transport personnel and railway officials.^{2/} The ECE project in this field, which deals with highway development,^{3/} is another example of the work of the group of experts on development problems of southern Europe.

A Transport Section has recently been organized within the ECLA secretariat. Its work will be principally concerned with transport problems and requirements in relation to economic development in individual countries, as well as problems related to intra-regional trade. Current work on transport problems,^{4/} envisaging, in particular, inadequate transport facilities as an obstacle to economic development, is carried out under the Central American Integration Programme^{5/} in co-operation with UNTC and UNTAA, and in connexion with studies on the economic development of Brazil and Colombia.^{6/} A preliminary report on certain aspects of maritime transport in relation to inter-Latin American trade has been completed. The Division of Transport and Communications of the Department of Economic and Social Affairs is also engaged in a study of the existing facilities and assessment of transport requirements in the Middle East.^{7/}

Continuing work is also carried out by ILO's Inland Transport Committee.

^{1/} General: ECAFE 41-03, 41-04.
Highways: ECAFE 42-01, 42-04, 42-05.
Inland waterways: ECAFE 43-01, 43-02, 43-05, 43-06.
Railways: ECAFE 44-02, 44-03.

^{2/} ECAFE 43-04 and 44-01.

^{3/} ECE 01.21 (d).

^{4/} ECLA 6.

^{5/} See ECLA 4 under item 1.

^{6/} See ECLA 3 under item 1.

^{7/} UNTC projects.

Chapter 6.

CONCLUSIONS

As stated elsewhere in this survey, the distribution of activities in the field of industrialization and productivity within the United Nations family is largely determined by the respective terms of reference. It was seen that in a number of instances the interests of several organizations converge in certain fields. This is not only inevitable but in fact desirable in view of the close interrelationship of the various aspects of the problems involved. The survey tends to show that there is no significant amount of duplication, but rather a substantial measure of co-operation between the various organizations and co-ordination of programmes and efforts. Further efforts to improve and strengthen the co-ordination of activities in fields of common interest are continuously being made.

The services of the secretariats of the organizations covered in the survey are increasingly called upon by governments for assistance in their action to promote industrialization and raise productivity which constitutes an important aspect of their economic development policies. A number of projects of an economic, technical and social nature are currently being undertaken in the organizations under review, with a view to assisting governments, both as part of their regular work and under the technical assistance programmes.

One type of projects covered in the survey relates to economic planning and programming and projections of output by economic sectors, designed to assist governments engaged in promoting economic development of their countries. These projects are carried out both on an ad hoc and continuing basis. The secretariats of the regional commissions for Latin America and Asia and the Far East are engaged in this work jointly with UNTAA, the specialized agencies and governments concerned. Their studies aim at the establishment of broad targets of output and productive capacity corresponding to stated objectives of economic development and related changes in demand in various economic sectors; they are as yet at a preliminary stage and are essentially methodological in

character. In the studies of the Economic Commission for Europe covering the less developed countries of southern Europe, the main emphasis has been on trade, agriculture and transport; the possibilities of extending these studies to industry are at present under review.

Another type of studies now being carried out aim at providing governments with needed information for the formulation of their general economic policies and furthering specific aspects of the development of their countries. These relate to statistics and statistical methods, monetary problems, public finance and trade, assessment of natural resources,^{1/} population and manpower, and to specific industries or industry groups.^{2/} Such work is mainly regional in scope, and the attention devoted to particular fields varies from one region to another; the approach also differs widely. Thus, such topics as development of natural resources, power, transportation, small-scale and cottage industries are being actively studied in some regions and relatively neglected in others; in addition, the work in certain regions would tend to concentrate on technological research rather than on studies of an economic nature.

As regards industry studies, work of an economic and technological nature is undertaken in connexion with technical assistance operations, research and dissemination of information. The projects under the technical assistance programmes are undertaken in specific instances on an ad hoc basis at the request of governments, with a view to supplementing government action. The work carried out by the various organizations either directly or under the technical assistance programmes is currently focussed on forestry and fisheries, including industrial processing, and on basic industries such as mining, iron and steel and power, construction and transport. Relatively little attention has been given so far to studies of the economies and technology of certain branches of heavy industry, such

^{1/} Mainly agriculture, forestry, mining, energy and water.

^{2/} Mainly mining, iron and steel, pulp and paper, rural industries.

as engineering and chemicals, and of "light" industries as a group, that is manufacturing of consumers' goods, with the exception perhaps of food processing. The studies carried out by the secretariats of the regional commissions are generally conducted with the particular problems of the respective regions in view, although a number of them present a wider interest. Industry problems of certain regions, such as Africa or the Middle East - which are not covered by regional commissions - have so far received less attention;^{1/} the same is true in regard to problems and techniques of industrialization of the centrally planned economies.

In the social and related field, the projects of the organizations reviewed in the survey cover primarily such items as population, labour, health, education, urbanization, housing and community development. A number of studies of the social impact of industrialization are under way; while these are at present at the fact-finding stage, it is hoped that at a later stage a certain number of general principles will be developed which might be useful in assisting governments in the formulation of policies. The necessity for general studies such as those now carried out in the social field should be emphasized here, especially as, in the perspective of the over-all current activities described in the survey, it appears that relatively little emphasis is placed on deriving some general principles governing the various processes and effects of economic development and growth. Generalizing ILO's remarks in connexion with studies on productivity,^{2/} it may be stressed that the current activities which are largely of a practical and ad hoc nature, need to be supported by studies of a broader scope aiming at the elaboration of a body of principles for the guidance of United Nations' policy and action in the field of economic development and industrialization. It is reasonable to expect that a framework of this kind might be derived both

^{1/} This statement does not apply to the operational activities in this field of the United Nations family in general. Thus, in the field of technical assistance, total assistance extended under the Expanded Programme to countries of the Middle East (including Afghanistan and Egypt, and excluding Pakistan and Turkey) amounted, in 1954, to about 22 per cent of the total field programme; in the same year, the share of African countries (excluding Egypt) amounted to about 9 per cent.

^{2/} Ninth report; see chapter 2, above.

from a systematic study and evaluation of the experience accumulated by the United Nations and of the extensive literature on these subjects published in recent years.

It will be recalled that in resolution 560 (XIX), the Council requested the Secretary-General to prepare "in the light of this survey" and of other pertinent considerations, a programme of work in the field of industrialization and productivity. Bearing this in mind, it appears useful to mention some of the areas in which some further work of the Department of Economic and Social Affairs appears to be desirable. The unequal attention which has been given so far to certain aspects of the industrialization problem, both from a topical and geographical point of view, was noted above. There appears to be a necessity for research covering, for individual industries or groups of industries, the stage of industrial planning lying between, on the one hand, the assessment of resources and broad programming of sector targets and, on the other hand, the actual designing of productive plant and facilities.^{1/} It also appears that the majority of industry projects on the current programmes of work relate to problems of particular industries or industrial groups rather than to problems of interrelationship between industries or between the process of industrialization and the development of other sectors of the economy. Thus, few studies are under way on the subsidiary facilities required by the growth of industrialization.^{2/} There is also need for further work - over and above that undertaken by certain agencies along the lines of their main interests - in such fields as the relationship between industrialization and development of agriculture and food output, the effect of industrialization on the structure and volume of foreign trade and the

^{1/} For example, industry studies dealing with alternative levels of mechanization, size of plant and operations, utilization of capacity, etc.

^{2/} For example, studies of the interrelationship between the progress of industrialization and resulting demand for transportation, power, etc., the problems of location of plant, marketing demand for housing and other facilities of "social overhead", urbanization in relation to growth of industry, etc.

balance of payments, and the problems of industrial finance. Finally, important areas for further investigation are such topics as the role of social and demographic factors in industrialization and, conversely, the impact of industrialization upon these factors, and the place of small-scale industries and of the related field of community development in an integrated programme of industrial development.

APPENDIX

Excerpts from statements of ILO, FAO, UNESCO, WHO, IBRD, UNRWA and UNKRA

INTERNATIONAL LABOUR ORGANISATION

ILO activities relating to industrial development embrace a very large proportion of all activities of the Organisation.

Full information regarding these activities is contained in the annual reports of the ILO to the United Nations. The first part of this paper seeks to define those activities of the ILO which may be regarded as coming under this heading and to indicate broadly the aims and objectives of these activities. The second part of this paper is devoted to an up-to-date account of action taken by the ILO in the field of productivity.

Activities relating to industrial development

The ILO seeks to contribute particularly to the following requirements of an economy which, in the process of growth and development, is becoming more industrialized.^{1/} First, it seeks to aid in the tasks of adapting and equipping the labour force to meet the demands that are made upon it, and of ensuring that the fullest possible use is made of available labour resources. As was stated in the United Nations report on Processes and Problems of Industrialization in Under-Developed Countries, "the speed and success with which an under-developed country is able to industrialize depend in no small measure upon its human resources and their potentialities for development".^{2/} Labour statistics and manpower surveys provide an important element in the information upon which all plans for integrated economic development should be based. Manpower policy should be an integral part of economic planning. Effective formulation and execution of this policy requires a well-organized employment service. The most important step towards meeting the needs of industry for the services of skilled workers and technicians is the carrying into effect on a national scale of a complete and well-co-ordinated programme of vocational training. Immigration can, under certain conditions, and in particular if appropriate measures are taken to assist prospective migrants, provide industry with skilled foreign workers while local workers are still being trained.

^{1/} For a discussion of, and some statistical data illustrating the changing pattern of economic activity, see International Labour Conference, 38th Session, Geneva, 1955: Report of the Director-General (ILO, Geneva, 1955), chapter I.

^{2/} E/2670, United Nations publication, sales No.: 1955.II.B.1, page 5.

Secondly, the balance of integrated economic development is liable to be disturbed, especially if a rapid rate of development is sought, by inflation. An appropriate wage policy has an important part to play in protecting the workers on the one hand and the economy on the other from harmful effects of an excessive pressure of demand upon a limited supply of goods and services.

Problems arise in connexion with the general level of wages, the protection of wages, wage differentials and minimum wage regulation. It is desirable that wage policy should promote balanced economic growth, should protect workers against exploitation, should ensure that they receive a fair share of the fruits of economic progress and should provide incentives both to employers and workers to improve their efficiency.

Thirdly, housing and town and country planning problems - and especially workers' housing problems - have to be tackled at an early stage in the industrial growth of any country in order to avoid the uneconomic congestion and the unhealthy slums that appeared in many of the more advanced countries during their industrial revolutions.

Fourthly, industrialization and urbanization bring about important sociological changes - for example, a loss of traditional forms of security which calls for action to provide new forms of social security.

Fifthly, labour legislation, and administrative services to carry it into effect, are increasingly required as an economy develops from a subsistence to an exchange basis and from purely agricultural to more diversified and industrial pursuits. In addition to the protection which an appropriate wage policy can afford, provision is needed for the protection of workers in regard to all other aspects of their terms of employment and conditions of work. For example, steps are needed from the very outset to ensure the health and safety of the workers in work-places, and to prevent the working of excessive hours, and the exploitation of women and children. Such measures help to ensure a healthy, contented and productive labour force; they help too to ensure that the advantages to be gained from industrialization are shared among all of those who help to earn them.

Sixthly, with the development of industrial plants employing an increasing number of workers, problems of labour-management relations will become more

numerous and complex and capable of affecting important sectors of the economy, especially with the emergence of industry-wide collective bargaining. There will be a need to provide machinery for consultation and conciliation, and to promote measures and conditions conducive to industrial peace and co-operation within each plant and throughout industry.

Appropriate action to meet the above-mentioned requirements can considerably enhance the productivity of an economy. In addition there is need for action to promote "productivity consciousness" - a recognition of the need for higher productivity, an understanding of the modern methods by which it can be raised and a desire to apply those methods. Productivity-consciousness can be promoted through practical demonstration in plants, publicity programmes, exchanges of information and experience, both internally and internationally, and similar measures which can usefully be co-ordinated and carried into effect by national productivity centres, or similar agencies. All categories of workers should be prepared, by appropriate training, for the implementation of the techniques and methods required to achieve higher productivity. The concept of productivity should be incorporated in vocational training programmes, both basic and supplementary, at all levels. Moreover, it is necessary, by means of special training, to assist foremen and supervisory staff to adapt themselves to the changes in their functions which result from the introduction of new methods and to overcome the difficulties arising therefrom.

ILO action to assist countries in meeting the various requirements enumerated above includes research and publications, tripartite international conferences and committee meetings and the provision of technical assistance.

There is no need here to repeat the information contained in the nine annual reports of the ILO thus far submitted to the United Nations, which describe all ILO activities that assist the less-developed countries to meet these requirements - activities in the field of manpower and employment policy, migration and employment

service organization,^{1/} action against unemployment and under-employment,^{2/} vocational training and vocational guidance,^{1/} labour statistics,^{3/} wage policy,^{4/} workers' housing,^{5/} social security,^{6/} terms of employment, working hours and conditions of work,^{7/} occupational health and safety,^{8/} the administration of labour legislation,^{9/} social policy in non-metropolitan territories,^{10/} and the promotion of modern methods of raising productivity.^{11/} Attention is therefore drawn, in footnotes, to the parts of each of the ILO's annual reports in which full information may be found concerning each of the activities mentioned.^{12/}

- 1/ Vide First Report of the ILO to the United Nations, chs. IV and XI; Second Report, ch. I; Third Report, ch. I; Fourth Report, ch. I; Fifth Report, ch. I; Sixth Report, chs. I and II; Seventh Report, chs. I and II; Eighth Report, chs. II and III; Ninth Report, ch. I.
- 2/ Vide Fourth Report, ch. II; Fifth Report, ch. II; Seventh Report, chs. I and II; Eighth Report, chs. I and II.
- 3/ Vide Second Report, ch. X; Third Report, ch. XII; Fourth Report, ch. XVII; Eighth Report, chs. II and III; Ninth Report, ch. I.
- 4/ Vide Third Report, ch. II; Fourth Report, ch. V; Fifth Report, ch. III; Sixth Report, ch. I; Seventh Report, ch. I; Eighth Report, ch. I; Ninth Report, ch. II.
- 5/ Vide Eighth Report, chs. I and IV; Ninth Report, ch. II.
- 6/ Vide First Report, ch. V; Third Report, ch. IV; Sixth Report, chs. I and II; Seventh Report, chs. I and II; Eighth Report, chs. II and III; Ninth Report, ch. II.
- 7/ Vide Fourth Report, ch. VI; Fifth Report, ch. VII; Ninth Report, ch. II.
- 8/ Vide Second Report, ch. VI; Third Report, ch. V; Fourth Report, ch. VII; Fifth Report, ch. VI; Sixth Report, chs. I and II; Seventh Report, chs. I and II; Eighth Report, chs. II and III; Ninth Report, ch. II.
- 9/ Eighth Report, ch. II; Ninth Report, ch. II.
- 10/ Vide First Report, ch. X; Fourth Report, ch. XIV; Fifth Report, ch. XV; Seventh Report, ch. II; Eighth Report, ch. I; Ninth Report, ch. II.
- 11/ Vide Fifth Report, ch. II; Sixth Report, chs. I and II; Seventh Report; Eighth Report, chs. I, III and IV; Ninth Report, ch. I. Also E/2224, E/2440, E/2604 and E/2604/Corr.2 and oral statements made during the debates on productivity at the Fourteenth, Eighteenth and Nineteenth Sessions.
- 12/ So far as the programme of research and studies is concerned, reference may also be made to the Bibliography on the Processes and Problems of Industrialisation in Under-developed Countries (E/2538), pp. 21-28. It will be recalled that, in accordance with Council resolution 560 (XIX), supplements to this bibliography will be issued from time to time.

Improvement of industrial productivity

The raising of industrial productivity is an important element in programmes of industrial development, as the Council has recognized in giving major attention to this subject when considering integrated economic development. The ILO is keenly aware of the fact that substantial social progress and higher standards of living cannot be achieved unless productivity is raised. It is at the same time equally concerned that this should be achieved by measures which do not impose an undue or unhealthy strain upon the workers nor result in unemployment, and it seeks to emphasize that higher productivity will only serve as a means to the end desired if the gains from higher productivity are fairly shared with the workers. ILO efforts to promote higher productivity include studies and publications, meetings of representatives of governments, employers and workers, and of leading experts in this field, and the provision of technical assistance.

Emphasis is placed in the programme of studies and publications upon practical applicability. For example, a practical handbook entitled Introduction to Work Study has been prepared for use by ILO technical assistance missions in their courses of training in work study. Modern techniques for raising productivity have so far been developed and applied largely in advanced industrial countries, and therefore require adaptation to the circumstances of under-developed countries. Experience gained in this respect through technical assistance work will provide a basis for subsequent revisions of this handbook. The report on Higher Productivity in Manufacturing Industries, mentioned in previous ILO communications to the Council, has been published in the three official languages in the ILO Studies and Reports series, and the conclusions of the ILO Meeting of Experts on Productivity in Manufacturing Industries (December 1952), reproduced in it, continue to serve as a general basis for action to raise productivity.

Steps to raise productivity in particular industries have been carefully examined in several of the ILO's industrial committees, including those concerned with Coal Mines, Building, Civil Engineering and Public Works, Chemicals and the Metal Trades.

At its next session the Inland Transport Committee will have on its agenda the question of methods of improving organization of work and output in ports, while the Textiles Committee, in September 1955, will examine problems of

productivity in textiles. Other subjects to be discussed by the industrial committees this year and next have a close bearing upon productivity. Mention may be made, for example, of human relations in the petroleum industry and labour-management relations in textile factories, safety in the construction industry and in coal mines and recruitment and vocational training in coal mines. The Council will recall that each of the ILO's industrial committees are tripartite and will appreciate the value of direct participation by representatives of employers and workers from the industry concerned, as well as of governments, in the discussion of the particular aspects of productivity problems in the industry in question. This advantage arises not only from these representatives' detailed and first-hand knowledge of the particular industry, but also from the importance of a full exchange of views, by those closely concerned, regarding industrial and human relations as a factor affecting productivity.

The first European Regional Conference of the ILO was convened in January-February 1955. A major item on the agenda of this conference was the role of employers and workers in programmes to raise productivity in Europe.^{1/} Production practices and conditions and results achieved vary so widely within the region that much was to be gained from an international exchange of views and experiences between employers', workers' and government representatives from twenty-five countries of eastern and western Europe. The ILO report before the Conference on this item focussed attention upon action being taken in the region by employers and workers to raise productivity, and also discussed national and international action to the same end, including the steps which could be taken

^{1/} No question in the field of productivity has yet been included in the agenda of an ILO regional conference in an under-developed region. The question of the role of employers and workers in programmes to raise productivity in Latin America will be on the agenda of the Sixth Conference of American States Members of the ILO (Havana, September 1956).

by the ILO to promote productivity. The Conference drew attention to the ways in which higher productivity could contribute to higher standards of living. In order to ensure that this end is achieved, there should be a free and strong trade union movement, emphasis should be laid upon more effective work through the improvement of methods and not upon harder work, full employment should be maintained, and the benefits of higher productivity should be equitably distributed among capital, labour and consumers. Reference was made to the numerous spheres of economic and social policy in which governments have a responsibility for creating conditions favourable to higher productivity.

The Conference concluded that the role of employers and their organizations is important because primary responsibility for action to raise productivity in individual undertakings rests with management. In discharging this responsibility, management has to take into account problems of human relations and personnel problems, problems of a predominantly technical character and problems of organization in which both human and technical factors are involved. The raising of productivity requires an examination of the general organization of the undertaking and a clear definition of the lines of authority and responsibility. In regard to human relations, management has a responsibility for creating and maintaining effective two-way channels of communication within the undertaking so as to ensure that workers are kept as fully informed as possible of the plans and policies of management, including measures to raise productivity and arrangements to safeguard the interests of workers affected by technological improvements or other changes, and that management is continuously aware of the views and opinions of workers. The achievement of an efficient organization requires thorough training of the personnel at all levels in all relevant aspects of their work. In regard to technical problems, the Conference believed that attention should be given to the possibilities of increasing productivity by concentrating production on a narrower range of styles and models, by improving plant layout, physical working conditions and the arrangement of work posts, and, in many plants, by increasing the degree of mechanization, especially of materials-handling problems. Knowledge should be spread and wider use made of industrial engineering techniques, costing and budgetary control and production planning.

Trade unions, the Conference concluded, could persuade their members that technological improvements, provided they are accompanied by reasonable safeguards, are to be welcomed, and could encourage them to participate fully in suggestion schemes and in works committees or other joint machinery. They could provide, or participate in organizing, training facilities for workers, shop stewards and trade union officials in business economics and in techniques of work study and industrial engineering, with a view to enabling them to participate, on the basis of adequate technical knowledge, in the application of work study techniques and in dealing with problems and methods of raising productivity. The workers' interest in higher productivity embraced higher real earnings, lower costs and prices, shorter hours and the development of social provisions.

Finally, the Conference expressed its views regarding the contribution which the ILO may make to the growth of productivity, noting subjects to which special attention should be devoted in its programme of studies and research, and expressing the hope that it would give sympathetic consideration to requests from European countries for technical assistance in the raising of productivity. The ILO could define and seek to extend the area of agreement between governments and the representatives of employers and workers, a task for which its tripartite structure gave it special competence. It could provide a forum for the exchange of views and experience. It could undertake continuous study, both in general and in particular industries (i) of the aspects of the problem of raising productivity which are of special concern to it, and (ii) of the methods of ensuring that the benefits of higher productivity are fairly distributed. It could make available through its publications the results of such studies together with information on the action being taken in the different countries to raise productivity. Finally, it could provide or co-operate in the provision of technical assistance to governments which request such assistance in raising productivity.

The work of the ILO in the field of productivity in Europe, as elsewhere, has been, and will continue to be, carefully co-ordinated with that of other international organizations working in this field, and particularly with the OEEC and the European Productivity Agency, an integral part of the OEEC. The ILO has,

by invitation, been represented by an observer at meetings of a number of subsidiary bodies and working parties of the OEEC dealing with productivity, and the OEEC was similarly represented at the ILO meeting of Experts on Productivity in Manufacturing Industries. Regular consultation takes place between the secretariats of the two organizations.

A project to assist in raising productivity in the Indian textile and engineering industries, the results of which were brought together in a final report submitted to the Government of India and recently made available for general circulation, has met with sufficient success to be both continued and developed. With ILO assistance an Indian National Productivity Centre has now been established and is developing its activities.

In September 1954, three new ILO experts arrived in India to assist in the setting up of the Centre and to serve, together with local personnel appointed by the Government, as its initial staff.

Major functions of the Centre are to spread knowledge and promote the acceptance by both labour and management of better methods of utilizing available productive resources, and to arrange for the training of Indian personnel in modern principles of industrial engineering and related techniques. Success in achieving this depends essentially on the co-operation between labour and management and their agreement to the basic objectives and methods of raising productivity. Members of the mission have established numerous contacts within Indian industry in order to secure support for the work of the Centre.

In Pakistan, two experts are giving assistance in raising productivity in the textile industry.

The ILO is also continuing to provide technical assistance to Israel. At the outset two experts were assigned to Israel, one of whom completed his assignment in 1953. The other, an industrial engineer, has remained in the country throughout 1954 to continue to give specialized training in industrial engineering to Israeli engineers at the Israel Institute of Technology and to assist the work of the Productivity Institute generally. In connexion with this project, a six-months' fellowship was granted to enable the Chief Engineer of the Productivity Institute to study the development of European productivity centres. An

additional industrial engineer has recently been assigned to this project, and steps are being taken to organize a series of seminars at an advanced level led by visiting lecturers.

In 1953 the Egyptian Government requested the assistance of the ILO in the establishment of an Egyptian National Productivity and Vocational Training Centre. The Centre has now begun its work. An international staff of five and a number of Egyptian personnel have been appointed. A number of demonstration projects in selected plants in Egypt have been conducted and training courses have been organized. Recruitment is proceeding for the remaining international and Egyptian staff.

ILO activities directly aimed at raising productivity in Latin America are still in the formative stage, with the exception of a productivity project in Bolivia which is already under way. Recruitment of experts is proceeding to meet requests for assistance from the Governments of Argentina and Brazil, and from the Governments co-operating in the Central American Economic Integration Programme. Among other technical assistance projects having a bearing on productivity in this region, attention may be drawn to a number of vocational training projects, notably the Brazilian SENAI scheme which has been described in the most recent annual reports of the ILO to the United Nations. Mention may also be made of technical assistance, both under the Special Migration Programme and more recently in co-operation with the Inter-governmental Committee for European Migration as well as under the Expanded Programme, to promote migration with the aim of adding to the supply of skilled labour in Latin America over the short term and without the expense of training.

In regard to southern Europe, the ILO is seeking to meet as soon as possible a request from the Government of Greece for the services of two productivity experts.

Requests for ILO technical assistance in 1956 include several in the field of productivity, coming from governments in most of the less-developed regions of the world. The ILO welcomes the opportunity to expand the volume of direct aid which it can give to governments in this important field.

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

The objectives and functions of FAO relating to industrial development
and industrial productivity

The objectives and functions of FAO as stated in its Constitution are "Raising levels of nutrition and standards of living of the peoples under their respective jurisdictions, securing improvements in the efficiency of the production and distribution of all food and agricultural products, bettering the condition of rural populations, and thus contributing toward an expanding world economy."

FAO has always laid great emphasis on the concurrent development of industry and agriculture. The two are intimately related. Industrial development promises a growing market for agricultural products, both as basic raw materials and as food for industrial populations. It can provide alternative employment to labour released from agriculture and thus reduce the sociological barriers to the improvement of productivity and per capita income in agriculture. It furnishes the manufactured goods necessary for a rising standard of living in agricultural communities.

More directly as mechanization and the use of fertilizers and other factory produced requisites in farming is intensified and extended over larger proportions of the total agricultural area, the dependence of agriculturalists upon industry for the means of cultivation is steadily reinforced. Above all agriculture is dependent on the products of industry if its own output is to be transported to distant markets, converted into forms in which it may be conserved and handled efficiently, if it is to be held in storage for the producers' or consumers' convenience and if it is to be presented in the manner most attractive to the retail customer.

With regard to the general market for manufactured products, it should be noted that by far the largest unsatisfied demand is to be found in the rural masses of the less developed regions. Even in the most advanced countries the maintenance of industrial output and the opportunities for improving productivity afforded by steady expansion are tied up with the maintenance of agricultural purchasing power. The collapse of rural demand was a major influence in the foundering of the industrial economy of the United States during the nineteen thirties. The avoidance of comparable recessions in the future may hang upon the

success of current efforts to achieve a "selective expansion of production and consumption" and eliminate and prevent the burdensome agricultural surpluses which had such disastrous effects on prices and popular confidence in the past.

FAO is giving special attention to these problems through the organization of conferences and working parties on an international and regional basis, the continuing preparation of economic and statistical bulletins, the publications of specific material designed to assist in the search for solutions and the detailed guidance of individual Governments and in the handling of particular problems.

Analysis and interpretation of basic economic factors

One of the broadest aspects of specific FAO work bearing on industrial development and the improvement of industrial productivity lies in the field of economic interpretation. On the one hand FAO is undertaking a continuous job of fact finding, analysis and appraisal to keep Governments and other interested groups abreast of the food and agricultural situation, of available supplies of agricultural forestry and fishery raw materials, and the level of rural purchasing power, in order to provide the essential background on which economic policy decisions should be based. These decisions include the nature, location and direction of industrial development. The pattern of production, consumption and trade in agricultural products is constantly changing. Demand and prices fluctuate in response to the level of supplies and to economic conditions. Varying rates of population growth and economic development in different parts of the world superimpose longer term trends on short term and seasonal fluctuations. The work of FAO in providing member Governments with timely, objective and dependable statistical and economic intelligence provides data invaluable to all industries drawing supplies from agricultural sources or dependent for sales on the demands of agricultural populations.

The FAO Yearbooks of Food and Agricultural Statistics on Production and Trade are basic reference publications. They cover all the major crops and livestock products and trades including industrial raw materials such as palm oil, hard fibres, hides and skins, raw silk, etc., as well as primary foodstuffs. There are also important sections on land use, populations, fertilizers and farm

machinery. Finally the Production Yearbook includes data useful for economic analyses, e.g. food supplies and their utilization, agricultural prices, and indices of price and production. Through the Monthly Bulletin of Agricultural Economics and Statistics this information is kept immediately up to date. In each bulletin and in specialized commodity reports, changes and trends of vital importance to industrial consumers and producers are afforded a comprehensive and analytical treatment.

In the field of forestry, statistics of production and consumption are compiled annually and issued as Yearbooks of Forest Products Statistics. For the European countries where the information is more readily available, such statistics are issued on a quarterly basis. A comprehensive study of European Timber Trends and Prospects issued in 1953, the first of a series of regional undertakings done jointly with the Economic Commissions concerned, analysed the trends of production and consumption in an attempt to find guiding lines for future policies of forest production.

Fishery industries also benefit from a comparable informational and statistical service. Data for the fishery industries, i.e. statistics on catches and landings, disposition of primary output, production of preserved and processed commodities (frozen, dried, salted, smoked and canned products, meals for livestock feeding, fertilizers, oils, etc.), details on fishing craft, international trade in fishery products, etc., are published in the FAO Yearbook of Fishery Statistics. These basic economic series for the fishery industries are used in the preparation of commodity surveys and regional studies as well as analytical reviews of the structural development of the industries in particular, and in relationship to the general economic framework, in general.

The Annual State of Food and Agriculture provides a comprehensive analysis and review of the whole world agricultural picture for farms, forests and fisheries and the problems and current issues, and of prospects for the future. The 1955 issue, which surveyed the ten years since the war, in contrast with the same period after World War I, gave an unusually long and deep look ahead. Moreover the World Food Surveys, which are issued once about five years, also provide a thorough analysis of the world food situation at longer intervals.

Planning the balanced development of industry and agriculture

FAO works with all its member countries in the formulation of their agricultural programmes, and in the evolution of national agricultural plans and policies, properly geared into regional and world economic conditions, that will be most conducive to orderly and well-balanced national development in each country. Such national agricultural programmes must give due regard to the maintenance of an appropriate balance between industry and agriculture in order that expansion of saleable farm output is balanced with expansion of demand; improvement in productive efficiency in agriculture and the introduction of labour-saving machinery is balanced with alternative employment for workers saved; and all the other facets of agricultural-industrial balance are given due attention.

FAO has given many member countries direct technical assistance in working out national agricultural development programmes, or in setting up national machinery of their own for such purposes. In some cases, as with Greece, Thailand and Poland, such assistance was given through general country missions, which made a full field investigation and prepared elaborate reports covering all aspects of their agriculture. In other cases, as with Yugoslavia, Finland, Israel, Honduras, Jordan, Cambodia and others, aid was provided through a technical assistance expert, who was stationed in the country over a considerable period of time, sometimes for several years in succession. In still others, as with Portugal, a short visit by a senior staff member served to examine national programmes in process of development, and to suggest ways of improving them. Visits by teams of experts on the selective expansion of agricultural production and consumption have been made to most under-developed countries, and regional consultations on this subject have been conducted in all under-developed regions during 1954 and 1955. International training centres on methods of agricultural programming and problems in the formulation and economic appraisal of individual agricultural development projects, have also been conducted in Latin America, the Near East, the Far East and the Mediterranean Basin. Problems of industrial-agricultural balance have been given full attention in all these service activities.

The second major area of impact on industrial development lies in the more specific field of planning for industries closely related to agriculture, forestry and fishing. Most relatively under-developed economies are predominantly agricultural and programmes for development must take this into account. Local rural industries using the available agricultural raw materials can develop gradually without large capital investments while highly capitalized industries will depend upon foreign capital and foreign technical knowledge. The development of rural local industries is therefore a natural one in any economic development of an agrarian under-developed country. The first step towards industrialization is the processing of local raw materials by local labour. Both these may be drawn from agriculture. Production of supplies for farmers, such as fertilizers, improved tools, pesticides, etc., must go hand-in-hand with increased understanding and use by farmers. Thus sound industrial planning must be intimately concerned with the potentialities and interests of agriculture. The two facets of economic activity progress hand-in-hand.

Critical industrial decisions as to the size of a plant, the degree to which advantage can be taken of economies of scale, and the seasons during which it can operate at capacity can only be made with full knowledge of the factors affecting the supply of the raw material and the necessary labour force. Thus no project for the construction or development of plants for which agricultural supplies from the surrounding region are an essential raw material should go forward without due consideration of the character, quality, variability and long run volume of supply of the farm products involved, and the potential impact of the scheme on the pattern of agricultural development in the area.

Provision of accurate information on the availability of raw material for industrial use and assistance in development programmes for increased production and improvement of quality in these materials are thus major functions bearing on industrial development and industrial productivity. Programmes to conduct agricultural censuses, improve crop reporting services and publish the resulting information in conveniently accessible forms are a regular feature of FAO work, in addition to its technical studies and direct technical advisory assistance in the field of agriculture, forestry and fisheries.

In its Programme of Work for 1956 and 1957, FAO has included a project which ultimately would lead to a world inventory of renewable resources for agriculture. FAO's work to improve animal production through better animal disease control, animal nutrition and breeding, has a bearing on the development of the leather and dairy industries, the establishment of slaughter-houses, etc. Dairy surveys have been, and are being conducted by FAO in co-operation with UNICEF to assess the production aspect and its potentialities prior to the establishment of dairy plants. Such surveys have recently been made in Egypt, Spain, India and Pakistan. Crop improvement programmes through plant breeding, disease and pest control are particularly important for such crops as cotton, hard fibres, tea, rubber, etc., which provide the raw materials for industrial use.

Seeking to promote industrial development, FAO initiated a world forest inventory in 1946 to assess the availability of raw material and brought it up to date in 1953. Besides providing a world-wide picture of these resources, country by country, many nations were made aware of the need for more detailed and more accurate surveys of their forest resources. An increasing number of Governments have initiated or expanded national surveys to provide a basis for development of wood-using and related industries. Specific surveys of raw material and other factors to determine the possibilities for individual industries and for integrated groups of wood-using industries, as for example, in pulp and paper manufacture, and veneer and plywood production have followed. A number of countries, including Brazil, Iraq and Mexico, have been directly assisted in such surveys to lay the groundwork for development plans aimed at achieving an appropriate balance between industrial and agricultural activities in the national economy.

Moreover, the planting of new forests and the management of existing forests involving natural regeneration and silvicultural treatment to increase growth and yield of desirable species, are in many cases planned in relation to utilization by industry. The Regional Forestry Commissions are concerned with these problems and collaboration is maintained with the International Union of Forest Research Organizations. A World Forest Planting Manual is being issued and a study on the status of tropical silviculture in Asia, Africa and

Latin America is being compiled. Missions have been sent to individual countries to advise on, and direct planting and forest management activities, as for example in Austria, Ceylon, Paraguay and Thailand.

The Fisheries Division has also initiated a world-wide programme for the survey and compilation of available information on the kinds, magnitudes and distribution of living aquatic resources. Co-operation in this activity is being sought from regional fisheries councils and other appropriate bodies.

Marketing and processing

FAO responsibilities in the field of marketing bear on the topic of industrial development and productivity both in the broader applications already considered and in the demands laid on industrial processes and equipment for the handling and distribution of farm, fishery and forest products.

Harvesting, farm transport and packing equipment and containers originate in industry and their cost to the farmer and thus his technical efficiency depend on industrial manufacture and productivity in industry. Without roads, motor vehicles and railways, this produce cannot be moved economically off the farm. The provision of these essential facilities is again bound up with the accessibility of manufactured equipment. Where these services have only been available at too great a cost, agriculture remains on a subsistence level.

Guidance on the provision and organization of appropriate storage facilities is another major FAO activity in the field of marketing. The more elaborate concentration and terminal points demand construction processes and equipment of a highly mechanized character. The location, construction and operation of grain silos, cold storage plants for meat, fruit and vegetables, milk handling facilities and the like have been a continuing concern of FAO in Latin America, the Near East and Asia and the Far East.

The processing of the farm output becomes increasingly important as consumers demand more highly finished products, as the chain of distribution is extended, and as a means of eliminating physical waste and economic loss of perishables subject to great seasonal fluctuations in supply. The term "processing" logically extends to the conversion of fibres into cloth, the baking of bread and the increasingly complex operations of modern manufacture. Foods, such as milk, eggs, meat, fruits and vegetables, and other perishables

must be graded, processed and packed, promptly and efficiently if they are to reach consumers in a hygienic, economical and nutritious form. In this sector, FAO deals with economic as well as technical aspects of processing and marketing all the way up to the consumer. In such cases FAO thus assumes an active responsibility on behalf of the agricultural interest, the growers' welfare and the ultimate consumer.

So far as the handling, packing and simple processing of farm produce is concerned, FAO is actively concerned in the promotion of up-to-date efficient economical procedures and thus in industrial productivity. An FAO marketing expert has furnished continued guidance on the scale, setting and construction of a network of grain storage facilities in Honduras. In Chile, a meat handling plant has been constructed with the advice of an FAO expert and a meat marketing training course is now under way. In Libya assistance to the government, farmers and wholesale marketing agencies has resulted in the financing, setting up and operation of sorting, packing and conditioning plants. These efforts have helped Libya to develop new markets, and expand greatly the volume of export trade and the income received from that trade.

Similarly, advisory projects in the processing of dates in Iraq, Saudi Arabia, Libya and Sudan, and in the treatment of hides and skins in India, Libya, Egypt, Iraq, Iran and Haiti have enabled these countries to market a much improved product.

FAO experts have also co-operated with those from UNICEF and WHO in advising countries in planning and developing urban systems for safe and economical milk processing, bottling and distribution.

FAO has been helping countries not only to adopt improved methods of food technology, which form the basis of modern food industry, but also to improve traditional domestic and local practices in food processing and preservation in order to produce attractive and nutritious processed foods. For example, assistance is being given to some countries in improving their bread-baking processes and equipment. Some countries are being assisted in the manufacture of protein-rich foods like "soya-milk". Canning of fruits and vegetables on a community scale is another example of the efforts to help countries to make maximum use of their available supplies. Moreover, the problem of food additives, which is of some concern to food industry, public health authorities and the

consumer, is being actively studied in collaboration with WHO. All these efforts are directed towards raising the levels of nutrition and health of the people, which will also lead to increased productivity of the workers, as mentioned later on.

Particular attention has been paid to small agricultural processing industries through FAO's direct concern in the promotion of rural industries as part of its rural welfare programme. A number of papers, intended primarily as guides for rural leaders in under-developed countries, have been published. These deal mainly with equipment for improved processing. The commodities covered so far include tea, hides and skins, cotton, vegetable fibres and rice. A considerable amount of information on the processing of other products such as tapioca, olive oil, copra and sugar, has been collected with a view to further publications in this series.

Typical examples of the assistance rendered in this field are projects for the improvement of small-holders' rubber in Thailand, and of hides and skins in India (Uttar Pradesh). In Thailand small co-operative processing plants were encouraged and improvements in the quality of latex brought peak market prices within reach of the small holders. In addition, a Pilot Plant and Testing Station was built and equipped (partly financed by ICA) and a specialist was provided to advise on the testing and further use of rubber. In India the activities of a specialist in hides and skins have resulted in greatly improved quality. Training centres in methods of flaying and leather production have been set up, and co-operative societies have been formed for the disposal of leather and leather products. Widespread interest has been shown by the tanning industry which has increased its demand for improved hides supplied by the new rural tanning centres.

Other projects have included the processing of rice in Liberia; sugar in Guatemala and El Salvador; tea in Iran. Several countries have benefited from FAO's provision of equipment and machinery in demonstration centres

and pilot plants. These contributions range from flaying knives to rice mills, and rubber processing equipment. Fellowships have been granted for the study of methods of processing hides, rubber and dates.

A major share of the products of the forest reaches the rural as well as the urban consumer only after industrial processing. Therefore, FAO's responsibilities include development of forest industries because it must follow all stages from the growing and harvesting of the raw material to processing and marketing the finished product.

As in the handling of agricultural and fishing products, FAO is occupied in improving productivity in logging and the transportation of timber not only to make industrial development economically feasible in the first place, but to help bring forest products within the reach of more consumers through lower prices. This involves the reduction of waste at all stages; particularly in the harvesting stage.

Simplification of work, introduction and maintenance of tools, mechanized devices and modifications of tractors, loaders and other equipment are being studied with a view to their applications in agricultural and forestry fields, and have been the subject of FAO publications.

Through FAO's panels and committees of technicians such as those on Mechanical Wood Technology, Wood Chemistry, Pulp and Paper Consultations and the Products Research groups of the regional Forestry Commissions, for example, information is compiled as to conversion processes, methods of testing, standardization of grades, and qualities of individual products such as lumber, building construction components, veneer and plywood, and pulp and paper. Finding uses for hitherto little-used species and sizes of material formerly left to decay in the forest, improving methods of handling, sawing, seasoning, nailing, gluing, shaping and preserving wood against insect and disease attack, are constantly demanding the attention of technicians as means of increasing productivity and reducing costs of production. In Ceylon a complete wood working shop was set up and a staff trained in its operation and

in saw-doctoring; modernization of mills and wood industries has been assisted in Chile, India, Iran, Pakistan, Thailand and Yugoslavia. In Iran, Mexico and the Philippines, forest products research laboratories have been or are being put into operation.

Finally FAO has undertaken the task of stimulating interest on the part of governments and commercial organizations in the possibilities of initiating or modernizing wood-using industries. Surveys of pulp and paper possibilities in individual countries have been made by teams of foresters and engineers in Brazil, Cambodia, Central America, Colombia, Cuba, Dominican Republic, Ecuador, Greece, Haiti, India, Indonesia, Iraq, Laos, Mexico, Pakistan, Paraguay, Peru, Philippines, Portugal, Rhodesia, Thailand, Turkey, Venezuela, Vietnam and Yugoslavia. Raw material availability, techniques suited to the species of trees and labour sources, and markets must all be analysed and assembled in a cost and returns framework in order that potential investors may judge the economic feasibility of the undertaking. The joint study by FAO and ECLA entitled "Possibilities for the Development of Pulp and Paper Industry in Latin America", and the ensuing meeting of experts on pulp and paper in Buenos Aires in 1954, arranged jointly by FAO, ECLA and UNTAA illustrate the culmination of such efforts.

In assisting under-developed countries in the task of developing their fisheries, FAO has not been involved in industrialization initially. Rather, attempts are made to enable fishermen to practice their craft more effectively by furnishing more information on fish stocks and their natural characteristics, on the one hand, and on the other, introducing them to more efficient methods of catching and marketing fish. While a degree of mechanization may be introduced, the industry remains at the craft stage with little tendency to concentrate in larger units.

In so far, however, as these measures increase the quantity of fish caught, the need to expand the market and even out supply fluctuations becomes more apparent. Preservation and processing of increased catches requires some

degree of industrial development. Cold storages, ice plants, drying and smoking installations are of prime importance. Subsequently canning and freezing plants and installations for the extraction of fish oil and meal may be set up.

Joint industry and agriculture - forestry - fishery development

Water control and irrigation schemes when promoted for the development of hydroelectric power as well as agricultural production introduce another facet of FAO's direct interest in certain industrial activities. The construction of large dams, reservoirs and canals is frequently only judged feasible when their benefits may be shared by industry, agriculture, navigation and fishing interests together.

Wherever agricultural development occurs on a large scale, the development of machinery and equipment industries, as well as fertilizer, fuel, pesticide and other supply industries related to agriculture is instigated. FAO is thus concerned both with their promotion, and that the products of their manufacture be available to agricultural users in the most efficient form at the lowest cost.

Industries related to the wood-using establishments, including the design of equipment for logging and wood-working, production of insecticides, pesticides and preservatives contribute to the development of wood-using industries and benefit from consultations with FAO forestry technicians.

In addition, regional Forestry Commissions and individual FAO missions have been concerned with forest industries which do not depend on wood itself as the raw material. Examples of these are resin in Honduras and Mexico, turpentine, essential oils, tannin extraction, cork, bark, gums, and medicinal products.

The development of fisheries also gives rise to and is closely bound up with ancillary industries, such as boat building, machine shops and gear manufacture and repair. Again there is an increased demand for transportation and storage facilities which, in turn, may encourage industrial development to meet these needs.

Labour productivity in industry

Industrial development and the improvement of industrial productivity obviously depend to a large extent on the health of potential industrial workers and their mechanical aptitude.

Health depends to a large extent on good nutrition. FAO seeks to bring about appropriate improvements in the diet of both urban and rural populations through the improvement of consumption in accordance with nutritional requirements, programmes of education in nutrition, and the supplementary feeding of needy groups. The importance of improving the nutrition of workers in raising industrial productivity has received considerable attention at various international meetings concerned with nutritional problems. For instance, the regional conferences on Nutrition Problems in Latin America have stressed the importance of this subject and made specific recommendations for improving the nutritional status of workers in that region.

Education in nutrition is of great importance in creating a demand for food products, especially in under-developed countries, and a number of projects concerned with its development figure in FAO's programme of work.

Another field of FAO activity which can make a valuable contribution to industrial development is home economics, which aims at improving conditions in the home. The productivity of workers is often affected by an adverse domestic environment in which poor dietary and food preparation habits may be a major factor. This applies strongly to areas in which urbanization is taking place rapidly and industrial workers are in the process of adapting themselves to changed circumstances.

FAO development work is also raising the level of manual, mechanical and technical skill in backward areas and thus creating a labour supply of much greater productivity in industrial employment than would otherwise be the case. The tractor is becoming known in the most under-developed regions of the world. Its introduction, even in small numbers, means that repair and service centres must be established and skilled men are required to operate this modern machinery. In this way a nucleus of relatively skilled mechanics is formed, and furnishes a basis for more elaborate manufacturing developments.

At the invitation of the Government of Ceylon, for example, FAO sponsored a Regional Technical Meeting and Training Centre on Farm Mechanization and Workshop Problems (including Land Development and Reclamation), which was held at Gal Oya Valley, Ceylon, from 19 September through 14 October 1955. The Centre combined technical discussions on mechanization and workshop problems in the region, with actual training in improved methods of field operation and machinery workshop management. Its purpose was to provide the participants with an opportunity to discuss and seek advice upon their own problems.

In various Indian States, where the Government erected tractor and farm machinery repair shops, the workshops subsequently took on the production of small cultivators, windrowers and machines previously imported. Similarly pumps and ploughs, drills and cane-crushers, small threshers and grinders, have been constructed locally in Turkey, Egypt, and Iran, in India and Ceylon and in Africa.

Better farm buildings and roads involving new materials, techniques and machinery, together with the extension of rural electrification, also help to develop familiarity and competence in the handling of mechanical equipment of great value in the early phases of industrialization.

UNITED NATIONS EDUCATIONAL, SCIENTIFIC
AND CULTURAL ORGANIZATION

The main responsibility for international action directed to problems of industrialization and productivity rests with the United Nations and the International Labour Organisation, and with the Food and Agriculture Organization in respect to agricultural productivity. Nevertheless, a significant part of UNESCO's scientific and educational activity contributes directly or indirectly to work in this field.

1. Social sciences

(1) UNESCO's programme in this context is directed at bringing the resources of the social sciences to bear upon practical problems of international significance. Particular attention has been given to those related to the social impact of industrialization. A number of scientific studies have been promoted in the last few years on this subject. These studies are now completed or nearing completion, and their results are being published, disseminated and discussed. In addition, certain new projects are about to be undertaken, or in the planning stage.

(2) The Asian Relations Organization undertook in 1952, under the auspices of UNESCO, to organize research in Asia into the social consequences of the movement of people from rural to urban areas as a result of industrialization. Conclusions are now being examined and will be published shortly in synthesized form. A study made for UNESCO by the University of Dacca will also be published.

(3) With the United Nations, UNESCO is organizing a joint seminar on urbanization in the ECAFE region, to be held in Bangkok in 1956, with the co-operation of the International Labour Organisation. A general rapporteur will present the facts and trends, and analyse the nature of urban groupings from the village to the city level, their relation to surrounding units and to rural areas, and the types of problem which arise in the process of urbanization. In addition, the studies mentioned in paragraph 2 will be submitted to the seminar for discussion under an agenda item dealing with human and social aspects of urbanization in Asia. A paper will also be provided in respect of an item dealing with alternatives to over-rapid urbanization.

(4) A pilot field survey was made in 1952 for UNESCO, by the International African Institute, on industrialization in Africa and its social and cultural impact on indigenous populations. The area chosen was Stanleyville (Belgian Congo), and experts examined the evolution from tribal life to industrial life and its effect on family, social cohesion and standards of values. This survey formed the basic documentation for a Conference of social scientists and administrators held by UNESCO in Abidjan (Ivory Coast) in 1954 on the social impact of industrialization and urban conditions in Africa south of the Sahara. These studies and the results of the conference will shortly be published.

(5) As part of its work of stimulating research undertaken on an international basis on the social implications of technological change, UNESCO sponsored in 1953 the establishment by the International Social Science Council of an International Research Office on Social Implications of Technological Change. This Office serves as a clearing house for scientists of different countries interested in this field, and has also organized research for UNESCO. In 1954, the Office arranged a round table discussion on the comparative study of economic motivations and incentives in under-developed countries. The meeting examined the effects of modern economy in a traditional environment, the characteristics of transitional phases in rural areas, the problem of adaptation of workers to industrial production and the plans that could be adopted for research in these fields. The findings were published in the third issue of the International Social Science Bulletin for 1954, under the title "Economic Motivations and Stimulations in Under-developed Countries". Another study made in 1955, on social aspects of disorganization due to rapid industrialization with special reference to juvenile delinquency and crime, was submitted to the recent United Nations Conference on Prevention of Crime. The results of this study are to be published and will include a critical analysis of the problems as well as possible methods of solution, a plan of international study on these problems and an annotated bibliography. The Office is at present organizing a survey of existing research on the relation between technological change and social change enlisting contributions from scholars in France, the Netherlands, the United Kingdom and the United States of America.

(6) A Regional Research Centre on the social implications of industrialization in southern Asia will be established by UNESCO in India in 1956, with financial assistance from the Government of India. A meeting was called in September 1955 in New Delhi to advise the Director-General on various questions connected with the establishment of the Centre. It included delegates from ten countries, in the region as well as representatives of the United Nations and the specialized agencies. The Centre is being set up as a service to Member States of the region, to promote and develop their social science resources and research in this field and to provide a clearing house of available information through a documentation centre and library.

(7) Brazil has requested UNESCO to provide a team of social scientists to conduct a survey related to a possible reorientation of the Brazilian educational system. A Centre for Educational Research has been set up for this purpose by the Government. Brazilian social scientists are working with those provided by UNESCO on this project, designed to relate education to the present needs of a country undergoing industrialization.

(8) For 1956, UNESCO is arranging in consultation with ECLA the holding of a symposium on the meaning and criteria of economic progress in Latin America, which will take place under the auspices of the International Economic Association.

(9) The UNESCO programme for 1956 also contains a project for a comparative study to be made by the International Social Science Council into the sociological, psychological and cultural factors affecting productivity. Consultation is taking place with the International Labour Organisation in connexion with the implementation of this project.

(10) UNESCO has participated regularly in the ECAFE/ILO/UNESCO Inter-Secretariat Working Party on Training Personnel for Economic Development. UNESCO contributes to the working party chiefly by compiling information on management training facilities in the region, at a university level or in similar institutions of high education, and by making available specialized information concerning such subjects as research institutes, training establishments, and facilities for study or training abroad.

(11) To meet the need to develop social sciences techniques of evaluation related to projects of education and technical assistance for economic development being carried out in under-developed areas, a statistician and an educational psychologist have been conducting a field inquiry into possible techniques for use in south Asia. The results of this inquiry will be published shortly. An issue of the UNESCO International Social Science Bulletin to be published in 1955 will contain a survey, made by the International Social Science Council of evaluation problems including evaluation techniques for induced technological change. Following the conference convened in 1954 by UNESCO, in collaboration with the Technical Assistance Board, on problems of evaluating technical assistance projects, a draft of a manual of available techniques is being prepared for use in the field after discussion with the United Nations and other interested agencies.

2. Natural sciences

UNESCO's programme in the field of natural sciences falls into three parts: the first is concerned with the development of international co-operation in natural science, the second with the international organization of research for the improvement of the living conditions of mankind and the third with the teaching of science and the spread of scientific knowledge and methods. The following activities are of relevance to the problem under consideration:

UNESCO gives financial assistance to the International Council of Scientific Unions and to the Union of International Scientific Organizations to help, inter alia, in the organization of international congresses and seminars.

The Science Co-operation Offices for Latin America (Montevideo), the Middle East (Cairo), south Asia (Delhi) and south-east Asia (Djakarta), supply their regions with information, documentation and scientific samples. Assistance is also being given to Member States in creating scientific and technical documentation centres which are servicing industrial and scientific research in universities and specialized institutes; such centres exist or are being created in the following countries: Egypt, India, Mexico, Turkey, Uruguay, Yugoslavia.

Under the programme of promotion and co-ordination of research for the development of the arid zone, a preliminary scientific study has been made on the industrial use of energy derived from wind and sun. Technical assistance in arid zone research is provided to the following countries: Brazil, Egypt, Mexico, Pakistan, Peru.

Following an initiative of UNESCO, a European Organization for Nuclear Research was established in Geneva in 1954. Requests for assistance in nuclear physics have been received from a number of Member States. So far, aid has been provided to Brazil, and further missions are contemplated in 1956. Work was initiated in 1955 concerning measures for safety in the transport and use of radio-isotopes, in order to facilitate their employment in research and industry.

In the framework of its programme for the teaching of science in schools, UNESCO is engaged in the improvement of teaching methods and in helping countries to produce and use cheap local equipment. Technical assistance in those fields is being given to the following countries: Burma, Ecuador, Jordan, Indonesia, Libya, Paraguay, Peru, Philippines, Thailand. A science teaching conference for south-east Asia will be organized by UNESCO in Bangkok in 1956, at the Headquarters of ECAFE.

UNESCO devotes a comparatively important part of its resources to aiding under-developed countries to create science and engineering faculties in their universities and to develop research and training programmes in specialized fields of science, such as oil technology, electricity and electronics, the production of scientific instruments, etc. Such assistance is currently being provided to: Brazil, Egypt, India, Iran, Israel, Liberia, Mexico, Pakistan, Syria, Turkey and Venezuela.

3. Education

Industrial development and the improvement of industrial productivity depend to a large extent on the improvement of the human factor. UNESCO's campaign for the development of general education (primary, secondary and higher), and more specifically for free and compulsory primary education, has therefore a long-term bearing on this problem. UNESCO has projects or missions in primary and

secondary schooling in the following countries: Afghanistan, Bolivia, Burma, China, Colombia, Costa Rica, Ecuador, Haiti, Honduras, Indonesia, Laos, Lebanon, Liberia, Libya, Nicaragua, Paraguay, Peru, Philippines, Thailand.

The same applies to UNESCO's work in the field of fundamental education which seeks to help children and adults who do not have the advantages of formal education to participate more effectively in the economic and social progress of their community. UNESCO's action benefits from the collaboration of the United Nations, ILO, FAO and WHO. Two regional training and production centres are operating in Egypt, for the Arab states, and Mexico for the Latin American states. In addition, technical assistance is provided to the following countries in the development of fundamental education programmes or national training centres: Afghanistan, Cambodia, Ceylon, Jordan, Indonesia, Iraq, Liberia, Nicaragua, Pakistan, Somaliland, Sudan, Thailand, Uruguay.

Of direct relevance are UNESCO's activities in the field of technical education. They are closely co-ordinated with those of the International Labour Organisation, which has an important responsibility in this field. UNESCO projects and missions dealing with technical and vocational education have been carried out or are in progress under both the Expanded Programme of Technical Assistance and the Regular Programme in the following countries: Afghanistan, Burma, Egypt, Guatemala, India, Iran, Iraq, Libya, Malaya, Nepal, Syria, Thailand, Trinidad, Turkey.

Under the programme of the Organization for 1955/56, assistance will be extended to an Arab State willing to call and organize a Conference for the Arab States of the Middle East on vocational and technical education, planned for late 1956. The International Labour Organisation and, to a certain extent, the FAO, will participate in this project.

UNESCO and the International Labour Organisation participated in a conference on vocational education for Latin America, held in 1952 at the University of Maryland (U.S.A.) under the sponsorship of the Organization of American States. The conference examined problems connected with training in trade and industry, agriculture and home economics.

Experts were sent in 1954 and 1955 to Latin America and south-east Asia to assist governments in promoting programmes of workers' education within their general campaigns of social and economic development. In the preparation and execution of their missions, these experts benefited from the co-operation of the regional economic commissions and of the International Labour Organisation.

Under its programme of exchange of workers for educational purposes, UNESCO gives workers the opportunity of observing production processes in other countries, thus broadening their experience and ability to tackle their own problems of work and output.

WORLD HEALTH ORGANIZATION^{1/}

In answer to your request concerning the work being undertaken by WHO in matters relating to industrial development and the improvement of industrial productivity, I will endeavour to describe as concisely as possible the activities of our Organization devoted directly and indirectly to the attainment by the labour force of a state of health which is essential for the social and economic development of any country.

I will mention first of all those industrial health projects concerned with the protection of workers in industry. Although these projects are not comprehensive in the sense that they do not cover the entire population they are, however, intended to reduce accidents, raise the standard of health of the workers in industry and rehabilitate them if their health is impaired. These projects also serve the very useful purpose of training numerous medical and allied personnel for further extension of these services to the population.

Apart from the above projects which have a direct bearing on industrial development and the improvement of productivity, I must emphasize other projects which, although they are not conceived and implemented solely to benefit the industrial workers, are however of some great assistance to them. All workers whether in the industrial or in the agricultural field will benefit to the same extent as the population in general from these control measures.

It must be remembered in this connexion that with the increasing industrialization taking place in some tropical countries, labourers tilling the land one day do become overnight industrial workers transplanted with their families to big cities and to new congested areas where huge hydro-electric plants, irrigation projects and road building are being undertaken, in an environment which, as regards communicable diseases, may be similar to, or worse than, the one they have just left.

In addition to the immediate incapacitation and economic loss resulting from various communicable diseases in adults, there is the social and economic importance of the long-term effect of many of these diseases in children which may subsequently

^{1/} Excerpts from a letter of Dr. M.G. Candau, Director-General of WHO, to the Secretary-General.

result in invalidism in the productive age groups. I will now refer to certain projects whose aim is the control of these communicable diseases.

The potential of communicable disease control as a bridgehead for social and economic improvement is illustrated by the fact that in different countries some 400 million people over the last five years have already benefited from modern methods of malaria, tuberculosis, VD and treponematoses, yaws and bilharziasis control programmes.

At the 8th Meeting of the Pan-American Sanitary Organization's Directing Council which met in September 1955, several representatives pointed out that malaria is a growing industrial problem where, as in some cases, industries are established in malarious regions and where industry draws upon workers from infested areas. This emphasizes the important economic effect of the eradication of this disease, the incidence of which is still some 300 million cases annually throughout the world, taking a yearly toll of 3 million lives and constituting a terrific economic burden...

In tuberculosis control this aspect of industrial development and productivity has been kept in view as it is well known that tuberculosis spreads rapidly when industrialization begins in a country, especially when persons living in rural communities with no immunity against TB shift to cities to find employment in industry. On becoming sick they return to their villages and spread the disease in those areas. To assess an expected increase in tuberculosis likely to follow industrialization, a Tuberculosis Survey is in progress on the continent of Africa. On the basis of the findings of this survey, tuberculosis control measures will be formulated. It is expected that if all susceptible persons entering the industrial labour force are immunized, the virulence of tuberculosis in industry would be reduced appreciably. Similar results are hoped for in all areas where BCG vaccination has been undertaken.

It may also be said that the venereal-disease projects assisted by WHO will return to the production force men and women representing a potential manpower for industrial development.

Campaigns against yaws are being undertaken in many countries as joint activities with UNICEF and national Governments and will reduce considerably the possibility of the development of disabling hand and foot lesions in persons recruited from rural areas and who are engaged in continuous industrial employment. These control projects are now being undertaken in ten countries.

The tremendous losses due to reduced productivity of the workers are also accounted for by the fact that 150 million human beings suffer at present from bilharziasis all over the world. This disease affects the physical and the mental development of children and considerably impairs the strength and productive capacity of adults especially in the rural areas. It impedes the development of agriculture which is so necessary for the economic and social improvement of under-developed countries. With a view to controlling this disease WHO has established control projects in four countries.

Among the other projects related to industrial development and productivity, I cannot ignore those which have an impact on industrial development such as strengthening of the public health services, the promotion of nutrition services and environmental sanitation.

Modern public health administration has been developed into a science of the planning, organization and administration of a decentralized system of integrated health services to promote the attainment by the people of the highest possible level of health, thus helping the whole labour force.

Regarding the promotion of nutrition services, this type of project, although not so closely concerned with industrial development, is however aimed at the improvement of the nutrition of the population and is one of the ways of improving the labour force.

Certain environmental sanitation projects have also an important bearing on the industrial development and productivity of certain countries.

I feel therefore that WHO, in matters relating to industrial development and the improvement of industrial productivity, is contributing a great deal by the assistance given in the numerous fields of health described above and will continue to do so in the future.

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

The Bank's lending operations have an impact on industrial development and productivity, both indirectly and directly. The bulk of its lending over the years has financed improvements in the basic overhead services and facilities which are essential to progress in the industrial field. In the last fiscal year, for example, two-thirds of the Bank's loans were made for power and transport projects in twelve countries.

Loans have been made directly to manufacturing industry. In 1954/55, such loans represented the equivalent of \$37 million out of approximately the equivalent of \$410 million of total loans. The loans made to industrial enterprises are usually intended for establishment of new plants, expansion of existing ones or modernization of equipment. In addition, funds loaned to Governments and public bodies have in many instances been re-loaned to private industry. In other cases, the Bank's loans provided foreign exchange which private industry then purchased with local currency and used to pay for imports.

The Bank has also sponsored and made loans to and, in some instances, has found personnel to staff, development banks in some of its member countries. These institutions in turn made loans to private enterprises, particularly industrial enterprises.

The Bank's policies in the administration of its loans also make an effective contribution to industrial productivity. The Bank must be satisfied before making a loan that it will be used for productive purposes, and that the project to be financed is economically and technically sound and of a sufficiently high priority in terms of its contribution to the member country's economy. In this connexion Bank staff review engineering plans, cost estimates, and proposed management arrangements. Disbursements under the loan are made by the Bank only as the borrower incurs expenditures for specified goods and services, on the basis of documentary evidence showing, among other things, that such goods and services are reasonable in cost and of proper quality. The Bank also keeps the project under scrutiny during its construction, to be sure that it is being carried out efficiently and on schedule. The borrower is required to submit periodic reports on the progress of engineering survey, specification and design, the manufacture and delivery of goods and services on order, and on physical construction and the course of

expenditure. Comparisons are periodically made with original time schedules and cost estimates. These reports are supplemented by visits to the project by Bank staff, who observe the use and maintenance of goods and equipment purchased with the loan proceeds and assess the competence of the management and administration of the project.

The constant contact between Bank personnel and persons responsible for the planning, execution and management of projects achieves several desirable results. There have often been brought to light at very early stages technical, administrative or financial difficulties which, had they not been overcome or averted by discussions between the Bank and the borrower, might seriously have hampered the successful completion of the project. The continuing relationship with the borrower maintained throughout the life of the loan tends to assure successful operation of a completed project. And on a number of occasions consultations have resulted in revisions in, for example, equipment specifications and management techniques which may fairly be said to have improved the productivity of the enterprise.

There are certain other services which the Bank provides its members, unconnected with immediate loan proposals, which relate to industrialization. These fall under the heading of technical assistance. Several examples may be cited.

The Bank has under way a research study analyzing possible types of management arrangements for projects in under-developed countries. It has been the Bank's experience that a most important problem for any such country is the determination of what kind or kinds of management arrangements should be made to assure efficient operation of productive enterprises undertaken or supported by the Government. The problem arises principally in connexion with mining, power, transportation and industrial undertakings. The practical experience in this field, in both industrialized and under-developed countries, is extensive, and it will be the objective of the study to bring it together and analyze it in such fashion as to make it useful and readily available to policy-making officials in under-developed countries.

The study will cover such matters as (a) the kinds of firms which provide managerial services; (b) the relative advantages, in a given situation, of contracting for the services of one or another type of firm or of individuals; (c) the financial incentives necessary to attract competent management; and (d) the variety of possible arrangements with respect to the extent of managerial services to be provided.

In largest part the study will be devoted to the experience of the United States, the United Kingdom and the Netherlands; Belgian and some aspects of French experience will also be examined. The Bank is financing the study and three institutions are co-operating in the work: the Graduate School of Public Administration of Columbia University, Nuffield College of Oxford University, and the Foundation for Economic Research of the University of Amsterdam. The final report should be ready during the summer of 1956.

The Bank, jointly with the United Nations Technical Assistance Administration, helped the Government of Ceylon to set up an Institute of Scientific and Industrial Research early in 1955. A member of the Bank's staff is serving as the Institute's first Director. Such an organization was recommended by the economic survey mission to Ceylon organized by the Bank in 1951 at the Government's request. The objective of the Institute is the improvement of productive techniques through research applied to Ceylon's special conditions and characteristic products. The field, laboratory and pilot plant studies it conducts, the tests it makes of processes, equipment and materials and the other types of services it provides are available to private enterprises, at appropriate charges, as well as to government agencies.

The Industrial Credit and Investment Corporation of India has been set up with Bank assistance, financial and otherwise, with the object of mobilizing capital for industrial enterprise. This will be accomplished not only by investment of the Corporation's own funds, but by helping to attract the support of other investors for promising ventures and by stimulating the growth of the country's capital markets.

The industrial sector is among the sectors of the economy studied by the Bank's general economic survey missions, which are organized at the request of its members. Because the missions' reports are addressed to Governments, their comments are for the most part confined to the sphere of government action. Their evaluation of existing government policy towards private enterprise is supplemented by such recommendations for example as government assistance to private enterprise on problems of technology and management, training schools for skilled labour, or aid to new industries in the form of tax concessions or otherwise. It has been the Bank's experience that mission proposals in the industrial field, as in other fields, have been given serious consideration by Governments and have in many instances been adopted.

UNITED NATIONS RELIEF AND WORKS AGENCY FOR PALESTINE REFUGEES

UNRWA, by the nature of its task and its terms of reference, is in principle only concerned with the promotion of such industrial activities in the different host countries (Lebanon, Syria, Jordan, Gaza/Egypt) which bear a direct relation to the creation of employment possibilities for Palestinian refugees. Moreover, especially in the regions where the refugee problem is the most pressing (Jordan, Gaza), the industrial development possibilities are limited by the lack of natural resources, so that the Agency's most important efforts in the field of refugee rehabilitation are found in the agricultural sector: e.g., the Jordan Valley and the North West Sinai irrigation schemes. The combination of limited home markets,^{1/} the absence of important sources of raw materials, the lack of industrial tradition, including technical skills and know how, are some of the main factors which hamper large scale development in the industrial sphere, particularly in the relatively short period to which the Agency's operations are at present restricted.

On the other hand the Agency has a natural and keen interest in the general economic development possibilities of the Middle East, especially of those countries which are of primary interest with regard to the refugee problem: Egypt, Lebanon, Iraq, Israel, Jordan and Syria. The Agency's Economics Division is reporting regularly on important aspects of present trends and future prospects of this development (including, for example, financial and fiscal problems), thereby providing indispensable background material for the actual planning and programming of concrete rehabilitation projects.

In view of the above, the activities of the Agency in the industrial field are being mainly directed to developing the usually small and relatively simple types of industries which make refugees self-supporting; the improvement of industrial productivity is being promoted by the Agency mainly by means of the establishment of modern vocational training centres for young refugees.

^{1/} An extreme case is the Gaza Strip, where the original population of 100,000 people have been deprived of their former markets in Palestine, thereby losing a substantial part of their purchasing power; to this population about 200,000 refugees have been added, who have virtually no other means of support than the Agency's rations and services.

The main examples of the first group of operations are:

1. A grants programme for small industrial, commercial, agricultural and housing schemes in Jordan and Syria. This programme, which is being executed in co-operation with the Governments concerned, offers the possibility to refugees, who lack the financial means, to expand or to establish a small but economically sound project, which can be considered as an asset to the economy of the country as a whole, through the medium of a grant from the Agency. The maximum amount per project depends, apart from the nature of the project, on the number of persons in the family or in the group of families who are rendered self-supporting by it. The first experiences with this programme have been encouraging.

2. The activities of the Jordan Development Bank. This Bank has an authorized capital of JD 500,000 (\$1,400,000) of which JD 367,507 was paid up as of 31 March 1955; UNRWA contributed JD 300,000 (\$840,000) of the paid up capital. The Development Bank gives long-term loans (up to 10 years) at a relatively low interest rate (usually 6%), to economically viable enterprises in the industrial and agricultural field which give employment to refugees. On 31 March 1955, 16 industrial loans were in operation at a total amount of almost JD 103,000 (nearly \$290,000). Loans have for instance been granted for marble production, nail manufacturing, a dairy plant, leather work, furniture making, olive oil production, flour milling, a glassware factory, an ice factory, a tobacco factory.

3. It is to be expected that after realization of the main agricultural rehabilitation projects referred to above the Agency will also contribute to the establishment of processing plants, which will be needed in those newly developed areas.

The Agency's rapidly expanding activities in the field of vocational training can, for the industrial sector, be summarized as follows:

At present there are two Agency vocational training centres, namely at Kalandia, Jordan, and at Gaza, with an enrolment in the school year 1954/55 of respectively 116 and 187 trainees. Courses are given for radio mechanics, electricians, wiremen, fitters, blacksmiths, moulders, plumbers, draughtsmen, woodworkers, builders, and auto-mechanics. Apart from these centres, the Agency conducts some courses in government and private institutions, e.g. a full time course in surveying, engineering, and woodworking in Lebanon, and part time courses in commercial work in Syria and Lebanon. In the early years the Agency centres are

being conducted under the guidance of international specialists; they aim at training skilled workers.

For the next few years it is planned to expand the vocational training programme in Jordan by the addition of two centres for boys with a capacity of 200 pupils each and with one centre for about 130 girls; in Lebanon by two vocational training centres for boys with a total capacity of 320 pupils and a centre for about 130 girls; in Syria by one centre for about 200 boys; the plans for Gaza include an extension of the present vocational training capacity for an additional 150 boys and also the training of 150 boys and girls in a commercial course to be held in existing Egyptian educational establishments.

It is to be expected that the above described activities in the field of industrial training will not only provide an increasing number of young refugees with real future employment opportunities as skilled labourers, but will also be a contribution to the general raising of the standards of manual work and of a better understanding of the value and dignity of such work, thereby ultimately helping to lead to a higher industrial productivity in the Arab Middle East.

Finally it should be mentioned that the activities of the Agency in the field of housing and construction are relatively important. They not only include the building of shelters and facilities in camps, of clinics and hospitals, but also the building of houses, schools, etc., as a part of the rehabilitation effort.

UNITED NATIONS KOREAN RECONSTRUCTION AGENCY

The United Nations General Assembly, in resolution 410 (V) of 1 December 1950 establishing the United Nations Korean Reconstruction Agency declared, inter alia, under section B, Statement of General Policy on Relief and Rehabilitation in Korea, that: "The United Nations programme of relief and rehabilitation for Korea shall be carried out in practice in such a way as to contribute to the rapid restoration of the country's economy in conformity with the national interest of the Korean people....". This Statement of General Policy, and the directives and recommendations contained in resolution 410 (V) were construed to encompass the establishment of a viable Korean economy. Viability was defined to include (a) restoration of the standard of living to approximately the pre-invasion level, (b) achievement of a balance of payments, and (c) development of savings to a point where they would provide sufficient capital for the new investment required to keep pace with an expanding population.

A considerable amount of industrial development had taken place in Korea prior to the end of World War II, and, relatively, Korea was more highly industrialized than any other Asian country, excepting Japan. The pattern of this development, however, had been decided primarily by the needs of the Japanese economy, of which to all intents it was an integral part. In no way was it designed to provide an independent, viable economy for Korea. Definite steps toward the latter goal were first initiated in 1948 by the Government of the Republic of Korea, with the assistance of the Economic Cooperation Administration of the United States Government, and measurable progress had been made by June 1950.

The earlier "unbalanced" industrialization of Korea, together with economic changes brought about by the hostilities have forced UNKRA and other external aid agencies to consideration of more than solely restoration and reconstruction of damaged and destroyed facilities in the achievement of the goal of viability. Redirected consumer demands, such as the use of western style dress, the requirements of the armed forces, gradual changes in the cultural pattern, an increasing population, introduced new requirements upon the economy, which restoration of prior existing facilities alone could not meet.

The UNKRA over-all programme was undertaken giving due regard to these factors. Few projects have been strictly rehabilitative. Even where damaged or destroyed machinery has been replaced, intensive development has occurred, since the new equipment incorporates more modern production features which result in increased output.

Rehabilitation and restoration of the Korean economy to a state of viability through the joint efforts of the Government of the Republic of Korea and the United Nations, however, presumed availability of ample supporting funds. This presumption has not been borne out in fact, and lack of sufficient financial support from the member nations has necessitated shelving of the plan for over-all restoration of the economy by UNKRA. Nevertheless a very considerable measure of success has been achieved by the Agency. Almost all projects undertaken through the UNKRA financial year 1953 programme are now completed; some financial year 1954 projects also have been completed and most of the remaining ones are well under way; while a majority of the projects under the UNKRA financial year 1955 programme are now under implementation. With few exceptions all major projects encompassed by the present UNKRA over-all programme will be completed by fall-winter 1957. Their effect is already evident; it will become more so as the various projects reach completion.

UNKRA efforts in the industrial field have been largely concentrated (partly due to the restricted funds available) on rehabilitation and development of textile, cement, paper and flat glass production. However, projects to increase salt production, provide auto repair facilities, fish canneries, make available loans to small businesses, etc., also have been implemented. An extensive programme has been undertaken to increase mineral production, ferrous, non-ferrous, and fuel (coal and peat), and projects were established to initiate rehabilitation and expansion of the South Korean power system.

Definite efforts have been made to improve industrial and mining productivity. Vocational education facilities have been rehabilitated and expanded in strategic localities; a metal mine school has been established to provide training in metal mining techniques; a coal mine technical assistance team has been furnished; and a team of vocational training instructors is under recruitment. Additionally, technical assistance of various sorts has been and continues to be rendered by the UNKRA staff.

For reasons noted in the foregoing the major emphasis of the UNKRA programme, especially as related to industrial and mineral production, has been on development. As of 30 September 1955, including only projects which represent extensive development, from the over-all total of \$39,243,800 obligated or programmed for industries and mining projects, \$25,820,200 or 65.8 per cent fall in the development category. \$3,813,300 (including \$1,479,000 allotted to education) have been provided for educational and technical assistance projects designed to improve industrial and mineral productivity.

\$25,631,600 obligated or programmed for industrial projects include \$16,801,900 (65.6 per cent) for developmental, and \$8,829,700 (34.4 per cent) for rehabilitative projects. Of the \$13,612,200 total for mining, including coal and peat production, \$9,018,300 (66.3 per cent) have been allocated to developmental, and \$2,259,600 (16.6 per cent) to rehabilitative projects; \$2,334,300 (17.1 per cent) additional was allotted to projects designed to improve mineral productivity.

\$3,493,667 also was provided for power rehabilitation and development in the UNKRA financial year 1953 programme. Major allocations total \$2,871,780 for rehabilitation and \$621,887 for new development.^{1/}

^{1/} For details of the UNKRA programme for industry, mining, power, etc., reference is invited to the Reports of the Agent General of the United Nations Korean Reconstruction Agency for the period 1 September 1953 to 30 June 1954 (New York, 1954) and 1 September 1954 to 30 June 1955, to UNKRA monthly Project Reports and to An Economic Programme for Korean Reconstruction, March 1954.