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Agenda Item 7(b)

THE INDUSTRIAL DEVELOPMENT ACTIVITIES
OF THE UNITED NATIONS SYSTEM OF ORGANIZATIONS
FOR THE YEAR 1968

Fourth Consolidated Report

Abbreviations

Throughout the text, the following abbreviations have been used:

AIDC	Asian Industrial Development Council
AIMO	National Service for the Accelerated Training of Industrial Manpower (Mexico)
BTAO	Bureau of Technical Assistance Operations (now OTC Office of Technical Co-operation)
CADI	Advisory Committee on Industrial Development
CAFRAD	African Training and Research Centre in Administration for Development
CARPAS	South-West Atlantic Fisheries Advisory Commission
CASTASIA	Conference on the Application of Science and Technology to the Development of Asia
CCIR	International Radio Consultative Committee
CCITT	International Telegraph and Telephone Consultative Committee
CDPPP	Centre for Development Planning, Projections and Policies
CENFIS	National Centre for the Training of Instructors, Foremen and Highly Skilled Personnel (Chile)
CID	Centre for Industrial Development
CINTERFOR	ILO Regional Research Center (Latin America)
CIOMS	Council for International Organizations of Medical Sciences
CIRP	Centre international d'information et de recherche sur la formation professionnelle
CMTT	Commission mixte pour les transmissions télégraphiques
DFC	Development Finance Corporation
ECA	Economic Commission for Africa
ECAFE	Economic Commission for Asia and the Far East

	Economic Commission for Europe
ECLA	Economic Commission for Latin America
ECOSOC	Economic and Social Council
EIB	European Investment Bank
ENEA	European Nuclear Energy Agency
EFTA	Expanded Programme for Technical Assistance
ESA	Department of Economic and Social Affairs
FAO	Food and Agriculture Organization
FIDC	Foreign Investment in Developing Countries
F-in-T	Funds in Trust
FFHC	Freedom from Hunger Campaign
FUNDWI	Fund of the United Nations for the Development of West Irian
GATT	General Agreement on Tariffs and Trade
IACSS	Inter-American Conference on Social Security
IAEA	International Atomic Energy Agency
IAESTE	International Association for Exchange of Students for Technical Experience
IBF	International Federation of Commercial, Clerical and Technical Employees
IBRD	International Bank for Reconstruction and Development
ICAITI	Central American Research Institute for Industry
ICAP	Inter-American Committee on the Alliance for Progress
ICSU	International Council of Scientific Unions
IDA	International Development Association
IDB	Industrial Development Board
IDEP	African Institute for Economic Development and Planning
IFC	International Finance Corporation

IIT	Institute for Technological Research (Colombia)
ILO	International Labour Organisation
ILPES	Instituto Latinoamericano de Planificación Económica y Social
IMCO	Inter-Governmental Maritime Consultative Organization
IMF	International Monetary Fund
INA	National Apprenticeship Institute (Costa Rica)
ISIC	International Standard Industrial Classification
ISO	International Organization for Standardization
ITC	International Trade Centre
ITU	International Telecommunication Union
IULA	International Union of Local Authorities
IWP	Indicative World Plan
LAPTA	Latin American Free Trade Association
NIBID	National Investment Bank for Industrial Development
NISIR	National Institute for Scientific and Industrial Research (Malaysia)
NITIE	National Institute for Training in Industrial Engineering (India)
OAS	Organization of American States
ODECA	Organization of Central American States
OECD	Organisation for Economic Co-operation and Development
OTC	Organization for Trade Co-operation
PAHO	Pan American Health Organization
ROD	Regional Co-operation for Development
RP	Regular Programme
SATEC	Société d'aide technique et de coopération (Paris)
SENA	National Vocational Training Service (Colombia)

SENAI	National Technical Training Service (Brazil)
SENAPI	National Vocational Training Service for Industry (Peru)
SF	Special Fund
SIECA	Permanent Secretariat of the General Treaty on Central American Economic Integration
SIS	Special Industrial Services Programme
SITC	Standard International Trade Classification
TA	Technical Assistance
TNO	Netherlands Organization for Applied Scientific Research
UNACAST	United Nations Advisory Committee on the Application of Science and Technology to Development
UNCHBP	United Nations Centre for Housing, Building and Planning
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNESCO	United Nations Educational Scientific and Cultural Organization
UNESOB	United Nations Economic and Social Office in Beirut
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNITAR	United Nations Institute for Training and Research
UNTA	United Nations Technical Assistance
USAEC	United States Atomic Energy Commission
USAID	United States Agency for International Development
WFP	World Food Programme
WHO	World Health Organization
WMO	World Meteorological Organization

Introduction

The present Report is the fourth in the series of Consolidated Reports on the activities in the field of industrial development of the organizations in the United Nations system. This Report for 1968 updates and supplements information contained in the Third Consolidated Report ^{1/} which was presented to the second session of the Industrial Development Board. The Consolidated Report has its origin in the ECOSOC Resolution 1030 (XXXVII) of 13 August 1964 which called for information for "ensuring effective co-ordination in the field of industrial development". Many steps have been taken since, both to improve the reporting and to provide a comprehensive picture of the work of the United Nations system in industry. ^{2/} The first such step was to prepare a single, annual consolidated report. The second major step was to provide an analysis of the data and to present a brief report on the future activities. ^{3/}

In the guidelines provided to the agencies in the United Nations system for the preparation of this Fourth Consolidated Report, particular reference was made to the recommendations of the Industrial Development Board at its second session for the improvement of the contents of the Report. It has been possible, this year, to reflect some improvements with regard to classification of data, table of contents and to the cross-reference of projects on specific industry branches. Information is provided in the annexes on projects classified by countries and by the contributing organizations, and cross-reference is made to the relevant chapters and sections of the Report.

The present Report also reflects better coverage of the activities of the organizations. New contributions have been received from GATT, ITU, UNITAR, WFP and WMO. In addition, the contribution of FAO, which in previous years has been distributed as a separate addendum, has now been incorporated in the main Report. This Report, with the above-mentioned additions, maintains the over-all structure originally agreed upon by the various agencies.

^{1/} Document ID/B/23 and Add.I

^{2/} ECOSOC Res. D.1081 (XXXIX); ID/B/RES 4(II)

^{3/} ID/B/57 and ID/B/58

WESTERN

GENERAL SURVEYS, ANALYSIS AND RESEARCH DATA AND STATISTICS OF DEVELOPING COUNTRIES

A. General surveys of the process of industrialization, major trends and current developments

I.A.1
(1967 CR: I.A.7,
I.A.8)

ECA

Economic Survey of Africa

Continuing its study entitled Economic Survey of Africa, ECA sent for printing, in August, 1967, a survey that analysed the main economic trends in the 1950s and early 1960s and examined the development strategies of the countries of the North Africa subregion as seen in the latest development plans. This subregional survey is Volume II of the Economic Survey of Africa (Volume I on the Western subregion and the Republic of South Africa has already been published).

Within the framework of the Economic Survey of Africa ECA, with the assistance of its subregional office in Kinshasa and in co-operation with the Institut de Recherches Economiques et Sociales (IRES), completed its work in 1968 on a survey dealing with the Central African subregion. This survey gives a coherent picture of the economic development of the countries of the Central African subregion; it also outlines subregional trends and points out the direction of industrial development and the structural changes that have taken place.

A draft of the Economic Survey of Africa dealing with the East African subregion has recently been completed and is under examination before being sent to the printers.

Duration: 1967-1968 - continuing

I.A.2
(1967 CR: I.A.11)

ECA

Economic Bulletin for Africa

ECA has completed its work on the Economic Bulletin for Africa, Volume VII, Nos. 1 and 2. The combined issue was submitted for printing at the end of September 1967 and will appear as document E/CN.14/406. It deals with the present stage of industrial development in the East African subregion, the textile industry in the West African subregion, and the building material, chemical, aluminium and textile industries in the whole of Africa.

Volume VIII, Nos. 1 and 2, is a continued enlarged edition similar to Volume VII. The contents of this combined issue include the report of the second session of the Conference of African Planners and all country papers. It has been completed and is being printed.

1.A.2
(1)

1. The 1970-71 is presently under preparation and will cover the industrial problems prepared by ICA for Africa in the period 1967-1970.

Duration: 1970 - continuing

1.A.3

ECA

Annual economic survey of Africa, 1967: A Survey of Economic Conditions in Africa, E/CN.14/407

ECA completed its work on the above Survey in 1968. Chapter IV of the Survey is devoted to manufacturing; it presents a country-by-country picture of the industrial development and highlights the main areas of growth in the period 1963 to 1967. Chapter V deals with the construction industry and chapter VI presents information on mineral industries.

Duration: 1968

1.A.4

ECA

Fourth Interregional Seminar on Development Planning: Development projects and planning for the coming decade with special reference to Africa

This Seminar, held in Accra, 2 to 13 December 1968, discussed strategic sectors considered essential for speeding up economic progress. As one of these sectors was industry, a paper entitled "Industrial growth: Trends during 1950 to 1968 and prospects for 1980" was prepared as a part of the contribution from ECA.

Duration: 2-13 December 1968

1.A.5

(1967 CR; 1.A.18)

ECAFE

Asian Industrial Development Council, third session

The third session of the AIDC was held from 12 to 19 February 1968. The Council reviewed the recommendations of the first session of the Advisory Group and considered the reports of: the Iron and Steel Industry Survey Mission; the Pulp, Paper and Rayon Industry Survey Mission; action groups on fertilizers and allied chemical industries, on petrochemical industries and on engineering industries; the seminar on sources of mineral raw materials for fertilizers; the first session of the Advisory Council for Industrial Research and Asian Standards Advisory Committee. It also considered the programme of work and priorities.

Authority: Asian Conference on Industrialization, first session, 1965; ECAFE, twenty-second session, 1966

Duration: 12-19 February 1968 - continuing

Source of funds: The salaries of staff members of the AIDC secretariat and outside experts were met out of the ECAFE regular budget. Member Government and interested countries contributed part of the cost of the fact-finding teams, survey missions and feasibility studies.

11/7
1967

Industrial Development in the Region

The Committee noted that the industrial development of the region had been a major concern of the Commission since its inception. It noted that the Commission had been actively engaged in promoting industrial development in the region through its various programmes. The Committee noted that the Commission had been successful in securing the attention of the Member States and the international community to the industrial development of the region. The Committee noted that the Commission had been successful in securing the attention of the Member States and the international community to the industrial development of the region. The Committee noted that the Commission had been successful in securing the attention of the Member States and the international community to the industrial development of the region.

At this session the strategy for industrial development among ECDF developing countries was considered as the main topic for discussion. The secretariat prepared a paper highlighting some urgent features of the problem (E/LB.11/1 and DR/L.69). The Committee noted that although many impressive gains in the field of industrial development had been registered in many countries of the region, the per capita industrial output and productivity still remained very low in the majority of the developing countries, a fact indicative of the need for a review of the strategy of industrial development so that measures likely to bring about a more accelerated progress might be identified.

Authority: ECAFE, thirteenth session, 1967

Duration: 20-27 February 1968 - continuing

Source of funds: ECAFE regular budget

I.A.7
(1967 CR: I.A.21)

ECAFE

Asian Industrial Development Council (AIDC) Advisory Group, second session

The advisory Group met from 10 to 14 September 1968. It reviewed and appraised developments since its first session and considered measures for: implementation of AIDC projects, participation of the private sector in industrial developments; regional industrial development policies and the role of AIDC; and co-operation of ECAFE with UNIDO for the establishment of a data bank.

Authority: ECAFE, twenty-second session, 1968, resolution 68 (XXII)

Duration: 10-14 September 1968 - continuing

Source of funds: ECAFE regular budget

I.A.8
(1967 CR: I.A.1)

ECE

Economic Survey of Europe (from 1949 to 1960)
Economic Survey of Europe, part I (1961)

Duration: Initiated in 1948 - continuing

I.A.9
(1967 CR: I.A.1)

ECE

World Trade in Manufactured Products

Analysis of the world trade in manufactured products in the context of current trends and perspectives. Includes a perspective on the world economy and the effect of the world trade in manufactured products.

Authority: Terms of reference of the study; relevant resolutions and Decisions of ECOSOC and ECE

Duration: Initiated in 1947 - continuing

I.A.10
(1967 CR: I.A.3)

ECE

Note on structural change in the post-war European economy

The study was initiated in 1965 and it is expected to be completed in early 1969. Tentative plans are to publish the study in the Economic Bulletin for Europe.

I.A.11
(1967 CR: I.A.4)

ECE

International direct investment by private enterprises in Western Europe and North America

The study was initiated in the course of 1967 and was published in the Economic Bulletin for Europe, Vol. 19, No.1.

I.A.12
(1967 CR: XXV11.6)

ECE

Survey of the Recent Energy Situation in Europe

This annual Survey of the energy situation in Europe against the background of the energy economy in the world contains statistical information on production and consumption of primary energy in different regions of the world as well as on home production, transformation and final consumption of different forms of energy in European countries.

Duration: Initiated in 1961 - continuing

I.A.13

ECE

The Electric Power Situation in Europe and Its Future Prospects

This periodic publication contains information on the electric power situation during the previous year, and an examination of the trends of various factors likely to affect the electric power situation in Europe including the development of nuclear energy and other sources of energy. This is a concise annual economic study of the electric power situation; a more detailed triennial study contains an analysis of factors involved. Selected factors are subject to more systematic study. A report concerning the electric power situation in Europe in 1967-1968, containing final data for 1967 and provisional data for 1968, will be published early in 1969.

Authority: Committee on Electric Power, twenty-second session, 1967

Duration: Initiated in 1955 - continuing

- I.A.14 ECE The coal situation in Europe and its prospects
An annual economic study of the situation of the coal industry during the previous year, and of its prospects, is prepared by the secretariat for consideration by the Coal Committee and for subsequent publication. It deals with problems of production, demand, competition from other forms of energy, manpower, productivity and possible technical innovations having an impact on the outlets for coal etc. The volume covering 1967 was issued at the end of 1968 as ST/ECE/COAL/34.
Authority: Coal Committee, 1959
Duration: Initiated in 1959 - continuing
- I.A.15 ECE A fifteen-year review of investment and output in Eastern Europe and the Soviet Union
This study is aimed at giving a summary review and analysis of the development of investment and output in the Soviet Union and in the six Eastern European countries in the years following the termination of their post-war reconstruction. The sections of particular relevance to industrial development are those describing the intersectoral as well as the inter-industrial branch distribution of investment, sectoral analysis of past trends in capital/output, labour/output, and capital/labour output ratios, and the one dealing with returns to industrial investments in the individual countries from 1960 to 1964.
Authority: Terms of reference of the Commission; relevant resolutions and decisions of ECOSOC and ECE
Duration: Initiated in 1965 and published in the Economic Bulletin for Europe, Vol. 18, No.1.
- I.A.16 ECE Survey of the natural gas market in Europe
(For description see chapter XXVIII, 30).
- I.A.17 ESA World and regional exports analysed by industrial origin
Authority: Terms of reference of the Statistical Office (E/39, Chap. IV)
Duration: Date of completion - 1968
Estimated cost: 1968 - 4 man-months (Professional)
- I.A.18 ESA Development of methods for the comparison of volume of production between countries
Authority: Terms of reference of the Statistical Office (E/39, Chap. IV)
Duration: Date of completion - December 1968
Estimated cost: 1968 - 6 man-months (Professional)

We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.

I.A.11
(1967 CR: 11.A.3)

UNIDO

World Industrial Survey 1968

The world industrial survey is envisaged as an annual publication of UNIDO, and the issue for 1968 was scheduled for completion by the end of the year. This Survey reviews the main trends and developments in industry and in the related fields in the developing countries with special emphasis on the manufacturing industry. It discusses conditions of demand and supply, manpower, natural resources, infrastructure, developments in import-substitution and export promotion, regional co-operation and industrial finance. The Survey was prepared by UNIDO staff with the assistance of consultants.

Authority: General Assembly resolution 1030 (XXXVII); IDB, 1968 (ID/B/20/Rev.1, para.215)

Duration: January - December 1968

Estimated cost and source of funds: \$22,690 from Consultant Funds; 56 man-months

B. Industrial statistics

I.B.1

ECA

Working group meeting on income distribution statistics

In accordance with the recommendations of the Fifth Conference of African Statisticians (November 1967) and the working groups on revision of the system of national accounts (October 1967), ECA has been working on the preparation of a working group meeting on income distribution statistics. This working group is of special relevance to the countries of the region that are engaged in social and economic development planning.

Duration: 1968

I.B.2

ECA

Seminar on industrial statistics

In accordance with the recommendations made by the Working Group of Experts on Industrial Statistics in 1966 and the Fifth Conference of African Statisticians (November 1967), ECA has been taking steps to organize a seminar on industrial statistics in 1969.

Duration: 1968-1969

I.B.3

ECA

Seminar on Statistical Sampling Methods

In accordance with the recommendations of the UN Statistical Office at the Fifth Conference of African Statisticians (November 1967), ECA organized a Seminar on Statistical Sampling Methods in June 1968 in Addis Ababa. The Seminar was attended by 24 participants from 23 Member and associated Member States, as well as by representatives of ILO, FAO, and the United States. The main topics dealt with at the Seminar were developments of sampling in census and survey work in the region, application of sampling to demographic and housing statistics, labour statistics and statistics of industrial and distributive establishments.

Duration: June 1968

- I.B.4 ECA Yearly Statistics of Industrial Production
1967 CR: I.B.10
*The work on the compilation of the monthly and yearly industrial production statistics for all countries in Africa continued, and No. 5 of the Yearly Statistics of Industrial Production was published in 1968.
Duration: 1968 - continuing
- I.B.5 ECA Quarterly Statistical Bulletin
The Bulletin, started in 1968, contains inter alia, some industrial statistics for African countries.
Duration: 1968 - continuing
- I.B.6 ECA Statistical Yearbook for Africa
(1967 CR: I.B.11)
The title of the yearly Statistical Bulletin for Africa has been changed to Statistical Yearbook for Africa; the third issue was published at the end of 1968. Among other subjects, the Yearbook deals with the industrial statistics available in Africa and the gross domestic product by industrial origin.
Duration: 1968 - continuing
- I.B.7 ECA African Trade Statistics
(1967 CR: I.B.12)
The publication African Trade Statistics covers all commodities including industrial goods. The direction of trade is indicated in Series A, while Series B lists trade by commodity.
Duration: 1968 - continuing
- I.B.8 ECAFE Electric power development and planning: dissemination of information - annual review
(1967 CR: I.C.3)
The secretariat has compiled and issued annually a printed publication entitled Electric Power in Asia and the Far East which contains technical and financial statistical data of electric supply of the countries in the region as well as a review of the development of the countries. A quinquennial issue containing information for 1961 through 1965 was published in 1967. Currently, an annual issue containing information for 1966 is being printed and information for 1967 is under collection.
Authority: Sub-Committee on Energy Resources and Electric Power; Committee on Industry and Natural Resources; ECAFE
Duration: Continuing
Source of funds: ECAFE regular budget

1.8.9 ECE

Energy Statistics for Europe

This publication is issued annually, covering the previous year. It is prepared by the Statistical Office of the European Communities participating in the project. It is published by the Secretariat. It will be published in two volumes: the first contains information on deliveries of, and trade in, electricity; and on employment, output per man-year underground, output per manshift-lard coal; production of iron, electricity and natural gas; and deliveries of petroleum products for inland consumption. The second volume of the Bulletin for 1968 was issued at the end of 1968.

Authority: Coal Committee, sixty-first session 1965, (E/CN/CEA/17/2)

Duration: Continuing

1.8.10 ECE
(1967 CR: 1.8.5)

Electric Energy Statistics for Europe

This publication contains information and statistics on production, consumption and trade of electric energy. The annual bulletin for 1967 was published on 1 October 1968. The biannual bulletin, relating to the period 1 October 1967 to 31 March 1968, was published in June 1968. The annual bulletin contains figures on five consecutive years and the biannual bulletin contains monthly figures.

Authority: Working Party on Electric Power Statistics, third session, 1956

Duration: Initiated in 1956 - continuing

1.8.11 ECE

Statistics on conditions of hydraulicity in Europe

The Bulletin on Conditions of Hydraulicity in Europe contains information and statistics on the average conditions of hydraulicity in selected river basins and on the mean annual and seasonal rates of flow over a twenty-year base period. It is a biannual bulletin containing monthly, six-monthly and yearly figures as well as a map showing average conditions of hydraulicity in selected river basins of Europe over a half-yearly period. From 1968 this publication will be issued on a yearly basis. The last biannual bulletin, relating to the period 1 October 1967 to 31 March 1968, is in preparation; the first annual bulletin, which will relate to the period 1 April 1968 to 31 March 1969, is expected to be issued around June 1969.

Authority: Group of Experts for the Study of Hydraulic Resources in Europe and their Utilization, tenth session, 1959

Duration: Initiated in 1959 - continuing

- I.B.11 ECE Gas statistics
(1967 CR: I.B.3)
The Annual Bulletin of Gas Statistics for Europe contains information and statistics on production, consumption and trade of gas. Volume II of the supplementary bulletin covering the period 1960 to 1965 was published in 1967. Volume XIII covering 1967 was issued in 1968.
Authority: Ad hoc Working Party on Gas Problems, second session, 1956
Duration: Initiated in 1956 - continuing
- I.B.13 ECE Quarterly Bulletin of Coal Statistics for Europe
This publication is prepared on the basis of a monthly questionnaire, completed by the member countries of the ECE, on data obtained from national and international statistical bulletins and on secretariat estimates. The Bulletin (bilingual: E, F) contains statistical data concerning the following: production of hard coal, brown coal and coke-oven coke; stocks of hard coal at mines; stocks of coke-oven coke at coke works; underground employment and underground output per manshift; imports of hard coal and patent fuel; imports of coke-oven coke; imports of brown coal and brown coal briquettes; exports of solid fuels; internal deliveries of hard coal; internal deliveries of coke-oven coke; internal deliveries of brown coal; and deliveries of patent fuel and brown-coal briquettes. The Bulletin covering the first and second quarters of 1968 was published at the end of 1968.
Authority: Coal Committee, sixty-first session, 1965, (E/ECE/COAL/179)
Duration: Continuing
- I.B.14 ESA Development of internationally comparable estimates of value added and employment for countries and regions, 1963
Authority: Terms of reference of the Statistical Office: (E/39, Chap. IV)
Duration: Date of completion - October 1968
Estimated cost: 1968 - 12 man-months (Professional)
- I.B.15 ESA Preparation of a new annual publication on international industrial statistics
Authority: Terms of reference of the Statistical Office (E/39, Chap. IV)
Duration: Continuing
Estimated cost: 1968 - 30 man-months (Professional)

- 1.B.16 ESA Preparation of a new annual publication on international commodity production statistics
Authority: Terms of reference of the Statistical Office (E/39, Chap. IV)
Duration: Continuing
Estimated cost: 1968 - 12 man-months (Professional)
- 1.B.17 ISA Revision of the publication Industrial Censuses and Related Inquiries
Authority: Terms of reference of the Statistical Office (E/39, Chap. IV)
Duration: Proposed date of completion - December 1969
Estimated cost: 1968 - 6 man-months (Professional)
- 1.B.18 ESA Recommendations for the 1973 world programme of basic industrial statistics
The recommendations for the 1973 world programme of basic industrial statistics will cover the concepts and classifications to be employed and appropriate methods for the collection and compilation of the prescribed data. The project will involve the adaption of the revised recommendations for bench-mark industrial inquiries and the addition of new recommendations for the reporting of commodity information. It will also require the preparation of a revised manual on the practical aspects of undertaking the inquiries.
Authority: To be requested from Statistical Commission, fifteenth session
Duration: Proposed date of completion - December 1969
Estimated cost: 1968 - 12 man-months (Professional)
- 1.B.19 ESA International standard commodity classification linked to ISIC
This classification is designed to supplement the International Standard Industrial Classification (ISIC) as a basis for the collection and compilation of statistics on the production and consumption of commodities of all kinds. The classification will be developed from the revised ISIC by subdividing the industry categories at the group level and classifying and coding the principal products of each subdivision.
Authority: To be requested from the Statistical Commission, fifteenth session
Duration: Proposed date of completion - December 1969
Estimated cost: 1968 - 24 man-months (Professional)

- I.B.20 ESA Preparation of a study on national practices in distributive trade statistics and formulation of international recommendations in this field
Authority: Terms of reference from the Statistical Commission, fifteenth session
Duration: Proposed date of completion - December 1969
Estimated cost: 1968 - 12 man-months (Professional)
- I.B.21 ESA Organization and development of the collection and compilation of construction statistics
Authority: Terms of reference of the Statistical Office (E/39, Chap. IV)
Duration: Proposed date of completion - December 1969
Estimated cost: 1968 - 6 man-months (Professional)
- I.B.22 ESA Preparation of a study on index numbers of production, prices and costs in construction activity
Authority: Terms of reference of the Statistical Office (E/39, Chap. IV)
Duration: Date of completion - December 1968
Estimated cost: 1968 - 4 man-months (Professional);
4 man-months (Consultant)
- I.B.23 ESA International standard industrial classifications for establishment-type and enterprise-type units
Authority: Statistical Commission resolution 2 (XIV)
Duration: Proposed dates of completion: for establishment-type units, 1968; for work on classification scheme for enterprise-type units, 1970
Estimated cost: 1968 - 8 man-months (Professional)
- I.B.24 ESA Revision of the publication Index Numbers of Industrial Production; preparation of a survey of country practices in this field
Authority: Work programme of the Statistical Commission (E/4045, para. 176 (3))
Duration: Proposed date of completion - December 1969
Estimated cost: 1968 - 12 man-months (Professional)

1969
1969-70: 1.0.1

UNESOB
1100

Technical assistance - classification of industrial
statistics - preparatory work

The above project is to assist countries in the Western Hemisphere in the classification of industrial statistics according to the International Index Classification (IIC) and the United Nations Industrial Classification (UNICL) and the International Standard Industrial Classification (ISIC). Work has already been done, but it remains to find a common approach to the solution of the problem of classifying the statistics, mainly, however, further progress could be encouraged, based on present experience and experiences of the adoption of ISIC, related questions to be dealt with include those arising in connection with the analysis of trade statistics, and, in the case of industrial statistics, with printing of questionnaires, collection of data and presentation of results.

Authority: IDB resolutions 1 (I), 4 (II) and 5 (III); ECOSOC resolution 765 (XXX)

Duration: Preparatory work for the meeting has begun, but the meeting has been postponed to 1969

Estimated cost and

source of funds: \$11,000 to be provided partly from UNESOP regular budget and partly from UNDP

C. Analytical studies of basic problems and issues

1.0.1

ECAFE

Electric power development and planning - studies of technical developments

The purpose of these studies is to identify trends and developments which would be of advantage to developing countries.

The studies may include:

- Problems of introducing nuclear power in the countries of the region;
- Review of financial and taxation (electricity duty) policy of the regional and non-regional countries;
- Modern developments and improvements in distribution systems;
- Insulation co-ordination of power systems and the use of glass insulators, wooden cross-arms;
- Review of the prevailing utility codes in the regional and non-regional countries with a view to assisting the countries to modernize them in line with current development in technology.

Authority: Sub-Committee on Energy Resources and Electric Power; Committee on Industry and Natural Resources; ECAFE

Duration: Continuing

Source of funds: ECAFE regular budget

10/7/68
E/CN.4

1967
1968

Energy for the industrial revolution

This study is a preliminary study on the energy requirements for the industrial revolution in the various countries of the world. It is a preliminary study on the energy requirements for the industrial revolution in the various countries of the world. It is a preliminary study on the energy requirements for the industrial revolution in the various countries of the world.

Authority: Committee on Gas, 1967

Duration: 1965-1970

I.C.3 ECE

Consumption of solid fuels in the domestic sector - an economic analysis

This is one of the studies carried out by the Coal Trade Sub-Committee on the trends of solid fuel consumption by sectors and on the various factors affecting the coal situation in Europe, in particular the development of other forms of energy. This study (ST/ECE/COAL/33) was before the Sub-Committee on solid fuel utilization at its session in May 1968 and will be further examined in 1969.

Authority: Coal Committee, sixty-first session, 1965, (E/ECE/COAL/179)

Duration: 1965-1968

I.C.4 ECE

New means for the bulk transport of coal

This is the second study in a series carried out by the Coal Trade Sub-Committee on the trends of solid fuel consumption by sectors and on the various factors likely to affect the coal situation in Europe, in particular the development of other forms of energy. It is based on information submitted by participating countries, together with the findings of a group of rapporteurs which met twice in Geneva. This report was issued towards the end of 1968 as ST/ECE/COAL/35.

Authority: Coal Committee, sixty-first session, 1965, (E/ECE/COAL/179); Coal Committee, sixty-fourth session, 1968, (E/ECE/COAL/185)

Duration: 1966-1968

I.C.5
(1967 CR: I.C.1) ECE

Studies of current and projected changes in demand in European countries and their implication for world trade

I.C.6 UNESCO

Conference on the Application of Science and Technology to the Development of Asia

(For identification see chapter XXV.A.10)

I.C.7
(1968 CR: VI.A.15)

UNIDO

Sectoral monographs

As a follow-up activity of the preparation of documentation for the International Symposium on Industrial Development, Athens 1968, UNIDO commissioned in 1968 nine monographs covering the main sectoral issues defined by the Symposium. These monographs will be published in 1969.

Authority: Agenda of Committee II of the Athens Symposium (ID/B/21, Annex 1, p. 33-35)

Duration: June - December 1968

Estimated cost and

source of funds: \$22,500 Consultant fees financed from funds specially allocated from the Athens Symposium Budget

UNIDO

The following field projects were developed during 1968

		<u>Pro- gramme</u>	<u>Experts m/m</u>	<u>Cost \$</u>
I.C.8	Barbados	<u>Increase of industrial productivity (10-1050)</u>	REG 1/3	5,700
I.C.9	Indonesia	<u>Increasing productivity in the industrial sector (43-57)</u>	TA 1/12	23,100

CHAPTER 11

INDUSTRIAL POLICIES

A. General policies and planning - economic, social and institutional aspects and problems of industrial development with regard to agriculture, forestry and fisheries

II.A.1 ECF
(1967 CR: 11.1.1)

Policies and means of promoting technical progress as a major factor of economic growth; fifth meeting of senior economic advisers

The documentation relating to this meeting, including the secretariat paper, "Policy for technical progress", several case studies prepared by Governments participating in the meeting, and a secretariat paper summarizing the main points discussed during the session will be published in the course of 1969.

II.A.2 ECI

Note on Industrial co-operation (Economic Survey of Europe in 1967)

The purpose of the study is to provide a starting point for further studies in the field by identifying the most promising forms for further industrial co-operation as well as the obstacles and the policy measures necessary to overcome them. The discussion is confined to the manufacturing sector, and is focused on relations between individual enterprises and groups of enterprises.

Authority: Terms of reference of ECI; relevant resolutions and decisions of ECOSUC and ECE

Duration: Initiated in 1967 and published in 1968

II.A.3 ECLA

Latin American industrial development as part of a concerted programme for economic and social development

In this study, the various alternative objectives and means of Latin American industrial development policy were examined with the aim of outlining a concerted industrialization programme for the 1970s. The study is an integral part of a general document, prepared by ECLA, on the global strategy of economic and social development and will be presented at the next ECLA session. The execution of this project is closely linked with the Action Programme for the Second Development Decade.

Authority: General Council of ECLA

Duration: 1967-1968



United Nations Industrial Development Organization

Distr.
GENERAL

ID/B/1/Corr.1
10 March 1969

ORIGINAL: ENGLISH

Industrial Development Board

Third Session

Vienna, 24 April - 15 May 1969

Agenda item 11(c)

THE INDUSTRIAL DEVELOPMENT ACTIVITIES
OF THE UNITED NATIONS SYSTEM OF ORGANIZATIONS
FOR THE YEAR 1968

Fourth Consolidated Report

Corrigendum

Page 176, Project no. VI.C.13

Delete the last two lines under the heading "Estimated cost and source of funds".

Substitute the following:

"\$24,473,500 Gov't counterpart contribution (in kind)".

11.A.5

102

Transfer of technology at the enterprise level

This study continues the work initiated in the first survey report on the Role of Patents in the Transfer of Technology to Developing Countries (UN publication, Sales No. 67.11.6.1) and in the "Role of enterprise-to-enterprise arrangements in supplying financial, managerial and technological needs of Industrial enterprises in developing countries" (E/4038). The study will consist of: (a) selected industry and country case studies and the findings of an expert group meeting to be held in 1970 (while the case studies will be undertaken jointly with ECLA, IDB and UNESOB, the regional commissions are expected to participate in the expert group meeting); (b) measures to ease the financial burden of such transfers to developing countries; and (c) technical assistance on the legal and administrative framework of patents and know-how.

Authority: Fiscal and Financial Branch Project; Advisory Committee on Science and Technology, third report (Ch. III, D, para. 122 (j)); General Assembly resolution 2091 (XX); Council resolution 1201 (XLII)

Duration: Continuing

Estimated cost: 1968 - 10 man-months (Professional)
12 man-months (Consultant)

11.A.5

UNESOB/
UNIDO

Exploratory mission to Abu Dhabi, Bahrain, Dubai and Qatar - Industrial policy review

Upon the request of the Governments of the Gulf States, Abu Dhabi, Bahrain, Dubai and Qatar, a three-man mission, including the regional industrial adviser of UNESOB, was arranged by UNIDO. The mission visited the Gulf States for the purpose of making a preliminary review of their industrialization policies and of their industrial development as well as of the administrative machinery set-up to promote, finance and control it. The mission also explored the possibility of promoting regional co-operation between the Gulf States. Preliminary recommendations were made on relevant subjects, including the possibility of further UNIDO assistance.

Authority: General Assembly resolution 2152 (XXI); IDB resolution 5 (II)

Duration: 3 weeks, October-November 1968

Estimated cost and source of funds: \$3,000 provided partly by UNDP and partly under the SIS programme

11.A.6

UNIDO

Exploratory Mission to Abu Dhabi, Bahrain, Dubai, Qatar

Exploratory mission to assist these countries in the formulation of their future financial and industrial policies for industrial development.

Authority: Government request

Duration: October-November 1968

Estimated cost: 2 man-months

11.A.7 UNIDO Comparative studies and analysis of country experiences in the field of industrial policies

These studies, covering eleven industrial countries and several regional areas, were initiated in 1968 but will not be completed until 1969. The purpose of these studies is to help the developing countries to develop the particular type of industrial policies appropriate to their own problems, local conditions and existing institutions.

Authority: IDB, 1968 (ID/B/20/Rev.1, para.192)

Duration: 1968-1969

Estimated cost: 4 man-months

11.A.8 UNIDO Appropriate industrial policies and measures and their impact on the industrialization process

This paper reviews the role of industrialization in national economic development, industrial policies as an integral part of national economic policies, and the major and secondary objectives of incentive policies. It is a support paper on the background factors influencing the formulation of industrial policies in the developing countries.

Authority: IDB, 1968 (ID/B/20/Rev.1, para.192)

Duration: Initiated in 1968 - continuing

Estimated cost: 3 man-months

UNIDO The following field projects were developed during 1968

			<u>Pro- gramme</u>	<u>Experts m/m</u>	<u>Cost \$</u>
11.A.9	Kuwait	<u>Industrial development (X80-215)</u>	F-In-T	1/10	20,011
11.A.10	Paraguay	<u>Industrial development emphasizing balance of payment implications (189-57)</u>	TA	1/17.	21,000
11.A.11	Singapore	<u>Review of methodology for evaluation of new industrial projects (264-61)</u>	TA	1/12	19,790
11.A.12	Southern Yemen	<u>Formulation of industrial development policy (212-67)</u>	TA	1/6	11,000
11.A.13	Zambia	<u>Assistance to the Industrial Development Corporation (139-65)</u>	TA	1/12	22,000
11.A.14	The Gulf States	<u>Review of industrial development policies (68-397)</u>	SIS	3/2 weeks	2,000
11.A.15	Regional	<u>Industrial policies and programmes related to the economic integration of Central America (3-68)</u>	TA	2/24	39,000

11. Industrial protection and incentive policies

11.B.1 GATT

Trade problems relating to the cotton textile industry

The Arrangement regarding international trade in cotton textiles was reviewed by the Cotton Textiles Committee in October 1968. At this meeting, the Committee also discussed the adjustment measures that had been brought up by the importing countries participating in the agreement in relation to the conclusions adopted by the contracting parties in November 1967. According to these conclusions, reports were requested on measures taken to facilitate adjustment in the domestic industry of importing countries during the period of special protection provided by the Cotton Textiles Arrangement.

Duration: 1968 - continuing

11.B.2 UNIDO

Seminar on incentive policies for industrial development

In the 1968 work programme this meeting was conceived for experts on specific industrial fiscal incentives. However, as its scope was expanded to include various other types of incentive policies, it was rescheduled for 1969. In preparing for this meeting, it was also felt that the material developed could be put to better and fuller use in a seminar to which officials directly concerned with the formulation and implementation of industrial policies in developing countries could be invited.

The 1969 seminar will therefore be the first of a series that will be organized on various subjects within the field of industrial policies. It will be held at UNIDO headquarters, Vienna, in March 1969, under the title "Incentive Policies for Industrial Development". It will consider the background leading to the formulation of appropriate policies and measures, review the various types of incentive measures used, discuss criteria for the selection of appropriate incentive measures and consider the practical problems involved in implementing the measures chosen.

Authority: IDB, 1968 (ID/B/20/Rev.1, para.196)

Duration: 1968-1969

Estimated cost: \$31,000

11.B.3 UNIDO

Protection of infant industries in the developing countries

This project was undertaken to examine generally the practices of the developing countries regarding protection of infant industries. The investigation included a review of surveys and studies already completed by other organizations on industry protection, particularly the assessment of these organizations of the present regulations in certain developing countries in promoting industrial development.

11.P.3
 (continued)

11.P.3

and infant industry protection. Two technical papers provide additional data, one on the theoretical aspects and policies of protecting infant industries, the other on the experience of several selected developing countries in industry protection.

Authority: IDB, 1968 (ID/B/10/Rev. 1, para.210(F))

Duration: 1968

Estimated cost: 4 man-months

UNIDO

The following field project was developed during 1968:

11.P.4

*

Nicaragua

Fiscal incentives and industrial development policies (I81-57)

Pro-
gramme

TA

Experts
m/m

1/12

Cost
1

23,100

C. Export policies on manufactured products

11.C.1

ECA

Research and studies on Africa's exports to Asia, North America and Western Europe

In accordance with Commission resolutions 79 (V), 86 (V), 100 (VI), 128 (VII) and 135 (VII), ECA commenced research in 1968 on projects for increasing Africa's trade, particularly Africa's exports to Asia, North America and Eastern and Western Europe. This research is expected to provide detailed information and data to help Member States arrive at policy decisions regarding their commercial relations with the above-mentioned groups of countries. The study on African trade with Eastern Europe was recently completed.

Duration: 1968 - continuing

11.C.2

ECA

Studies on problems of African exports

A number of documents referring to vital problems of African exports were submitted to the Algiers preparatory meeting of the African countries held before the Second UNCTAD in New Delhi in 1968. Other papers dealing with, inter alia, problems concerning African exports of manufactured and semi-manufactured products were prepared for the Second UNCTAD.

Duration: 1968

Export promotion study

In order to assist the developing countries in the ECAFE region to balance payments, the ECAFE secretariat, in collaboration with UNCTAD, has been studying the possibilities for manufacturing exports from the developing countries. This has been achieved by compiling data from publications available in the secretariat and by visiting the countries. So far, six country studies, namely, China (Taiwan), Hong Kong, Malaya, Korea (Republic of), the Philippines and Thailand, have been completed. Similar studies on India and Singapore are near completion. Additional studies of this nature will be made for other countries, if the required funds are available.

The ECAFE secretariat has also collaborated with UNCTAD and UNCTAD/UNEP on a joint export promotion mission which was part of a fact-finding tour to certain developing countries of ECAFE region in the latter part of 1966.

Authority: Committee on Industry and Natural Resources; ECAFE

Duration: 1966-1972

Source of funds: ECAFE regular budget; UNCTAD contribution

Promotion of export of manufactures from Brazil

As a follow-up to the study already made in Brazil (ID/870.2736), a programme of technical co-operation was worked out with the Brazilian Government for the promotion of exports of manufactures. The fields selected were those in which technical assistance activities will take place, namely the engineering industry (machine tools, machinery and equipment for other industries, road construction machinery, etc.), domestic electrical appliances and similar equipment, sewing machines, the iron and steel industry (special steels), the leather and leather products industry (tanned hides and footwear) and the textile industry (untreated cotton yarn and textiles and finished cotton and ramie textiles). Contacts are being maintained with UNCTAD and UNIDO, which are also participating in this project, so that it can be given its final form. Due to a lack of personnel, it has not been possible to make more progress in this project.

Authority: ECLA resolutions 250, 253 and 254 (X1); 269 (X11); Trade Committee resolution 18 (IV)

Duration: 1968 - continuing

Estimated cost: 1968 - 3 man-months

11.0.6
11.0.7

11.0.6
11.0.7

Short and medium-term prospects for exports of manufactures from certain developing countries

Work on this series of studies continued in 1968 and the first part of the study concerning the countries of the Central American Common Market has been completed. The work was carried out jointly with UNCTAD, IDB and the Permanent Secretariat of CEA.

Authority: ECLA resolutions 750, 752 and 754 (XI), and 269 (XII); Trade Committee resolution 12 (IV)

Duration: Continuing

11.0.6

ESA

Export credits and development financing: national export credit systems

The project covers the periodic revision of part two of the Secretariat study on the subject (E/4274/Add.1). It is intended to provide the developing countries with up-to-date information and guidance on policies, rules and regulations and on practices of export credit insurance and export credit institutions in the capital goods exporting countries. The first revision is expected to be completed at the end of 1968 and subsequent revisions are expected to be published every two years.

Authority: Fiscal and Financial Branch Project; Council resolution 1270 (XLIII); UNCTAD Committee on Invisibles and Financing related to Trade (TD/B/18/Rev.1, para.56)

Duration: Continuing

Estimated cost: 1968 - 6 man-months (Professional)

11.0.7

ESA

Export credits and export credit insurance as a means of promoting exports by developing countries

This is a study of the actual and potential use of export credits and export credit insurance by developing countries as a means of promoting their exports and export industries. It will be based on a general economic inquiry and on a survey of existing national systems (institutions, procedures, terms and conditions).

Authority: Fiscal and Financial Branch Project; Council resolutions 1270 (XLIII) and 1358 (XLV); UNCTAD decision 29 (II)

Duration: Continuing

Estimated cost: 1968 - 6 man-months (Professional)
4 man-months (Consultant)

11.C.8

GATT

Trade in industrial products

The Committee on Trade in Industrial Products was instituted in December 1967 to explore the opportunities for making progress toward further liberalization of trade, taking into account the discussion on the subject at the twenty-fourth GATT session. It was decided to undertake an objective analysis of the tariff situation as it will be when all Kennedy Round concessions have been fully implemented, and to make an inventory of non-tariff and para-tariff barriers affecting international trade. Contracting parties were requested to notify the secretariat of the non-tariff barriers, both governmental and non-governmental, which they wish to be included in the inventory.

The Committee on Trade in Industrial Products, at its first meeting in mid-October 1968, considered an inventory on non-tariff barriers prepared by the GATT secretariat and discussed procedures to be followed in carrying out the analysis the Committee had been asked to undertake. On the same occasion a report was presented by the secretariat on progress made in the preparatory work for the Committee's analysis of the tariff situation.

Duration: 1968 - continuing

11.C.9

GATT

Tariff classifications of industrial products

The developed countries have been urged to give early and sympathetic consideration to requests already made, or that may be made, by developing countries for the separate identification in their tariff classification of products for which these countries are seeking, or may be seeking, further tariff concessions or duty-free entry.

Duration: 1968 - continuing

11.C.10

GATT

Review of import restrictions

The Contracting Parties have agreed that, inter alia, panels of government experts may be established to examine problems relating to the quantitative restrictions maintained by developed contracting parties on industrial products of particular interest to developing countries, with a view to an early removal of these restrictions. During 1968, a Special Group has kept under close review import restrictions applied to products of export interest to developing countries. Pressure is thus continuously being maintained for the removal of such restrictions.

Duration: 1968 - continuing

Tariff cuts for industrial products of interest to developing countries

Notifications have been made by a number of developed countries of tariff reductions made by them in the Kennedy Round on products of interest to developing countries which would be implemented without prejudice. The Contracting Parties urged all developed contracting parties to take the broadest possible action in this connexion, having regard however to the effect of such action on the interests of developing countries at present benefiting from preferences. During 1968 notifications have been received from several contracting parties that they intend to give advance implementation to tariff cuts resulting from the Kennedy Round on products of interest to developing countries.

Duration: 1968 - continuing

II.C.12

UNCTAD/
GATT (ITC)

Training programmes in export promotion and marketing

The training programmes provide training facilities in export promotion and export marketing to personnel from developing countries through a wide variety of formal courses, seminars, in-service training arrangements and study tours. The 1968 training programmes included a seminar initiated by UNIDO on development of industrial exports. This seminar for public sector officials with responsibilities in export promotion was jointly presented by UNIDO and the ITC in Zagreb at the invitation of the Government of Yugoslavia. The method of implementation included lectures, discussions and keyed project work.

Authority: Fourth Meeting of the Advisory Group on Trade Information and Trade Promotion Advisory Services

Duration: 28 October - 6 November 1968

Estimated cost and

source of funds: 1968 - 1½ man-months from UNDP

II.C.13

UNCTAD/
GATT (ITC)

The Market Information Service

This service provides trade and market data in response to inquiries from developing countries concerning products and markets of interest to them. It also undertakes major marketing studies on products that are of interest to the export trade of several developing countries. The studies, initiated in 1968, included a survey of the European market for industrialized coffee, a survey of market potentialities in developing countries for selected Brazilian manufactured products, a market study on Indian engineering products and an export market survey (India) on textiles and made-up garments.

Authority: Fourth Meeting of the Advisory Group on Trade Information and Trade Promotion Advisory Services

Duration: Initiated in 1964 - continuing; marketing studies, 1968-1969

Estimated cost and

source of funds: 1968 - 58 man-months from the ITC budget and from the Government concerned

11.C.14

UNCTAD

Tropical timber foreaux in four production areas

In 1965 the Secretariat prepared two studies on production, marketing, establishing, and the functioning of tropical timber industries in Europe and North America. Such studies were presented at the second session of the Int'l. ITC/ITAC workshop on tropical timber products in September 1967.

Authority: Committee on Manufactures (TD/B/22 and Corr.1)

Duration: Initiated at the end of 1967 - completed in September 1968

Estimated cost and

source of funds: 1968 - 8 man-months from UNCTAD

11.C.15

UNCTAD

World supply and demand

The purpose of the project is the preparation of an exhaustive study on world supply and demand. The project requires detailed analytical and econometric work over a number of years. This is necessary, in particular, for making sound projections of the likely world supply and demand for products which are of export interest to the developing countries and which can form the basis for sound planning in the foreign trade sector.

Authority: Committee on Manufactures (TD/B/22 and Corr.1)

Duration: Initiated in 1966 - continuing

Estimated cost and

source of funds: 1968 - 14 man-months from UNCTAD

11.C.16

UNCTAD

Analysis and review of the trade in manufactures and semi-manufactures of the developing countries

Each year a review of trade will be prepared, analysing the exports of the developing countries to developed market economy countries, to other developing countries and to the centrally-planned economies of Eastern Europe as well as the exports of developed countries to the developing countries.

Authority: Committee on Manufactures (TD/B/22 and Corr.1)

Duration: Initiated in 1967 - continuing

Estimated cost and

source of funds: 1968 - 16 man-months from UNCTAD

II.C.18

UNCTAD

Co-operation with the regional economic commissions in surveying the short and medium-term export prospects in the developing countries

A number of country surveys have already been made for countries in Africa, Asia, the Middle East and Latin America. During 1968 and 1969, further surveys will be finalized and new surveys will be undertaken in the various regions. The purpose of the surveys is to illustrate the potential short-term export capacity of the countries concerned, and to indicate the measures that can be taken to increase their exports.

Authority: Committee on Manufactures (TD/I/22 and Corr.1)

Duration: Initiated in 1965 - continuing

Estimated cost and

source of funds: 1968 - 21 man-months from UNCTAD

II.C.19

UNCTAD

Co-operation with UNIDO and the UNCTAD/GATT (ITC) on projects involving the establishment of export-oriented industrial production in the developing countries and the promotion of exports from these countries

In 1968 and 1969, a number of projects will be jointly undertaken by UNCTAD and the ITC, in particular: a training course in Yugoslavia, November 1968; the sending of expert missions to explore the export possibilities of selected countries in the various economic regions; and the sending of an expert mission to examine the export possibilities of selected countries in the various economic regions; and the sending of an expert mission to examine the export possibilities in selected industries in Argentina. The Manufactures Division will co-operate in these projects to the extent that they involve trade policy aspects.

Authority: Committee on Manufactures (TD/B/22 and Corr.1); General Assembly resolution 2152 (XVI)

Duration: The co-operation with UNIDO and with the UNCTAD/GATT (ITC) was established simultaneously with the creation of the bodies concerned, and is of a continuing nature

Estimated cost and

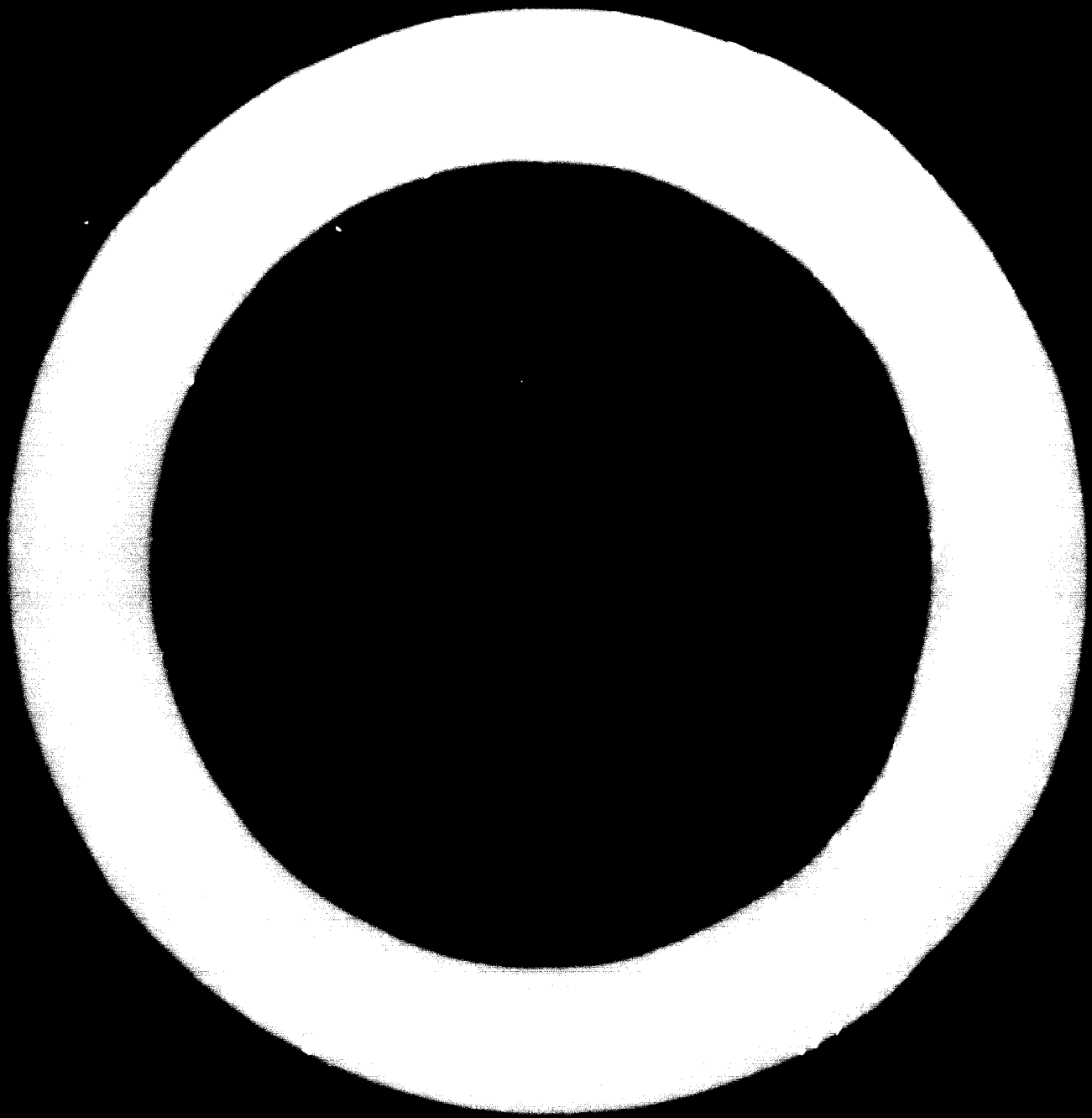
source of funds: 1968 - 3 man-months from UNCTAD

II.C.19

UNCTAD

Export policies

In the examination of policies that could be adopted by the developing countries to expand and diversify their exports of manufactures and semi-manufactures, two preliminary reports were prepared in 1968 for examination by the Committee on Manufactures: a report on the export incentives applied in developed and developing countries, and a report on the promotion of exports of small-scale industries in the developing countries.



11.C.19
(cont'd)

UNCTAD

Authority: Committee on Manufactures (TD/B/22 and Corr.1)
Duration: Initiated in 1965 - continuing
Estimated cost and
source of funds: 1968 - 10 man-months from UNCTAD

11.C.20

UNCTAD

Co-operation with the Customs Co-operation Council on the possibilities of reclassifying tariffs

The secretariat, in co-operation with the Customs Co-operation Council, will identify the technical possibilities for tariff reclassification of manufactured and semi-manufactured items of export interest to the developing countries, in particular, in so far as the characteristics of the products in question might differ from those produced in developed countries. The object of these studies is not only to examine the possibilities for tariff reclassification of particular products, but also to indicate to the developed countries the particular items on which the present duties might be substantially reduced or eliminated. To facilitate and expedite the examination of the problems involved, the Committee on Manufactures has established an intergovernmental group of experts on tariff reclassification.

Authority: Programme of Work of the Committee on Manufactures (TD/B/22 and Corr.1); Resolution of the third session of the Committee on Manufactures (TD/B/C.2/75, Annex 1)

Duration: Initiated in 1966 - continuing

Estimated cost and
source of funds: 1968 - 3 man-months from UNCTAD

11.C.21

UNCTAD

Tariff and non-tariff barriers

The secretariat is undertaking country and product case studies in respect of the quantitative restrictions and other non-tariff barriers applied by the developed market economy countries on products of export interest to the developing countries. It is also examining the question of what adjustment assistance measures could be taken in the developed market economy countries on products of export interest to the developing countries. Furthermore, it is examining the problem of the escalation of tariffs according to the degree of processing of a product and examining to the extent practicable the effect of tariff reductions on an MFN basis concluded under international tariff negotiations such as the Kennedy Round. A detailed programme for immediate work in the above fields has been decided upon by the Committee on Manufactures at its third session.

Authority: Programme of Work of the Committee on Manufactures (TD/B/22 and Corr.1); Decision of the third session of the Committee on Manufactures (TD/B/C.2/75, Annex 1)

Duration: Initiated in 1965 - continuing

Estimated cost and
source of funds: 1968 - 20 man-months from UNCTAD

11.7

UNCTAD

restrictive business practices

As stated in the relevant resolution of the Conference, the study is to analyse the restrictive business practices adopted by private enterprises of developed countries, with special reference to the effects of such practices on the export interests of the developing countries, especially of the least developed.

Authority: UNCTAD resolution 25 (II)

Duration: The preparation of the outline was initiated in the spring of 1968 and the work on the outline was completed in the autumn of the same year. The study is expected to require several years.

Estimated cost and

source of funds: 1968 - 3½ man-months from UNCTAD

11.7.23

UNCTAD

The establishment of a scheme of preferences on a non-reciprocal, non-discriminatory basis in favour of the exports of manufactures and semi-manufactures of the developing countries

At the Second UNCTAD in March 1968, there was unanimous agreement in favour of the early establishment of a mutually acceptable system of generalized, non-reciprocal and non-discriminatory preferences which could benefit the developing countries. It was also agreed to establish a Special Committee on Preferences which would meet in November 1968 and in the first half of 1969, the aim of its work being to settle the details of the system in the course of 1969 (UNCTAD resolution 21 (II)).

In order to assist in the Special Committee's work in settling the arrangements of a preferential scheme, three aspects in particular require further study, namely the rules of origin that may be applied in the new scheme of preferences; the possibility of including processed agricultural and other primary products; and the relationship of the new schemes to existing preferential schemes. In addition, the project includes assistance in the tasks related to the implementation and the subsequent review of the scheme after implementation.

Authority: UNCTAD resolution A III, 5 (first session)

Duration: Initiated in 1965 - continuing

Estimated cost and

source of funds: 1968 - 31½ man-months from UNCTAD

11.C.24

UNEP
I/II
(11)

Trade Promotion Advisory Service

The Trade Promotion Advisory Service provides general, pre- and on-the-spot counsel on the establishment or improvement of export promotion programmes and services in the developing countries in response either to requests for assistance made directly to the Centre or to requests for carrying out export promotion projects financed under UN technical co-operation programmes.

The TPA advisory missions to the requesting countries are undertaken by the Centre's own staff, by experts seconded by the Centre's National Liaison Agencies in the developing countries, at their expense, or by specialists recruited by the Centre itself. In all cases, the Centre is responsible for the necessary preparatory work prior to the dispatch of experts, for the briefing of experts, for providing support for them during their assignment and for follow-up action as required.

In the first half of 1968 seven advisory missions were completed: in Chad, Colombia, Honduras, Laos, Malta and Uruguay; and a preliminary fact-finding mission was carried out in Malaysia.

Technical assistance missions are presently fulfilling their assignments in Colombia, Indonesia, Iran, Malta, Mauritania, Mexico and the Philippines, and a regional adviser on trade promotion was assigned to the Permanent Secretariat of the General Treaty on Central American Economic Integration (SIECA) until the end of 1968.

Authority: Fourth Meeting of the Advisory Group on Trade Information and Trade Promotion Advisory Services

Duration: Initiated in 1964 - continuing

Estimated cost and

source of funds: 1968 - 154 man-months from UNDP

11.C.25

UNESOB/
UNCTAD

Short and medium-term prospects for export of manufactures from selected developing countries: Lebanon

The purpose of this study was to describe several aspects of the export capacity of manufacturing industries in Lebanon. Relating mainly to the supply situation, this analysis assessed available and future productive capacity and appraised such factors as prices, availability of raw materials and marketing systems - factors which tend to indicate the competitive capacity of a product in world markets. It also dealt with the demand situation, particularly commodity analysis.

Authority: General Assembly resolution 1995 (XIX); Final Act adopted by the First UNCTAD

Duration: 1968

Estimated cost and

source of funds: \$17,000 provided partly by UNESOB regional budget and partly by UNCTAD (consultancy)

11.C.26

UNIC

Jordan Arabia (UN mission to Petraia)

The objective of this mission was to assist the Jordanian authorities in setting up an export production centre for petro-chemical products and to investigate the possibilities of the development of export production.

Authority: Government request

Duration: November - December 1968

Estimated cost: \$2,500; 3-4 man-months

11.C.27

UNIDO

Repayment of credits through industrial exports from the developing countries

This project was initiated in 1967 to examine the possible alternative forms of repayment arrangements that might be utilized by the developing countries with regard to importation of capital goods essential for their industrial development. The progress of work during 1968 included the review of two consultant studies prepared in 1967 concerning this problem and a determination of the practices of repayment that might be applicable, taking into account their possible advantages and disadvantages. Additional empirical data were also collected in 1968 and co-operation with UNCTAD was established in this project.

Authority: IDB, 1968 (ID/B/20/Rev. 1, para.210(F)); Athens Symposium, 1967; First UNCTAD, 1964

Duration: Initiated in 1967 - continuing

Estimated cost: 4 man-months

11.C.28

UNIDO

Industrial co-operation in promotion of industrial exports

This project was initiated as an implementation of the recommendations of the First UNCTAD with regard to the promotion of industrial exports. The Conference stated that there was a wide area of opportunity for greater industrial co-operation between the developed and the developing countries with regard to the manufacture, in the developing countries, of components for machinery and equipment which were being produced in the developed countries. Moreover, the Conference felt that specific arrangements between interested parties in the countries concerned should be explored. Such arrangements on specialization, sub-contracting and other joint ventures would establish a basis for the promotion of exports of these manufactures from the developing countries on a long term basis. In 1967 and 1968 eight country studies and a number of case studies were commissioned to examine specific aspects of this possible area of co-operation. An expert group meeting is envisaged for 1969, upon completion of the studies, to discuss the findings of these studies and to consider the manner in which UNIDO could utilize them, and possibly initiate technical assistance activities, for the benefit of the developing countries.

II.C.28
(cont'd)

UNIDO

Authority: IDB, 1968 (ID/B/20/Rev. 1, para.210(e))

Duration: Initiated in 1967 - continuing

Estimated cost and

source of funds: \$6,000 from UNIDO regular budget

II.C.29
(1967 CR: II.E.25)

UNIDO

Expert group meeting on the utilization of excess capacity by manufacturing for exports

Work on this project, begun in 1966, will culminate with the holding of an expert group meeting in Brazil in the first quarter of 1969. A series of six case studies was undertaken in 1968 to examine, in specific manufacturing areas, the extent of excess capacity and the prospects of its utilization principally in connexion with the development of export-oriented production. The meeting had to be postponed from 1968 to 1969 for organizational reasons.

Authority: IDB, 1968 (ID/B/20/Rev. 1, para.209(a), 210(e))

Duration: Initiated in 1966 - continuing

Estimated cost and

source of funds: \$5,500 from UNIDO regular budget

II.C.30

UNIDO

Joint exploratory missions regarding promotion of export oriented industries

Several missions were contemplated as a result of joint co-operation between UNIDO/UNDP, UNCTAD and the regional economic commissions. Agreement was reached with ECAFE to give first priority to a Far East mission. The purposes of the mission were to assist the developing countries in determining the nature and scope of technical assistance required for stimulating the development and/or the establishment of export oriented industries and for promoting export marketing. Following briefing meetings in Vienna and Geneva in early October, the mission departed for the field and visited Thailand, Philippines, Indonesia, Malaysia, Singapore and Pakistan. It concluded its field studies by the first week of December. At the year's end, the report of the mission was being finalized and was expected to be released shortly thereafter.

Authority: IDB, 1968 (ID/B/20/Rev. 1, para.208)

Duration: Initiated in 1968 - continuing

Estimated cost and

source of funds: \$5,000 from UNIDO regular budget plus similar costs by UNDP and UNCTAD

Development of metalworking industries as potential export industries

A technical assistance mission was sent to Israel to recommend practical measures for developing the country's metalworking industries into export industries. On the basis of the results of these investigations, which were expected to be available by the end of the year, similar technical assistance projects are envisaged for Hong and Indo. In the long run, the material developed under this project could be extremely useful to the programming of industrial development in the developing countries.

Authority: IDB, 1966 (ID/B/20/Rev. 1, para.210(a))

Duration: Initiated in 1966 - continuing

Estimated cost and

source of funds: \$15,000 from UNIDO regular budget

II.C.3
(1967-68: II.E.2)

UNIDO

Expert group meeting on metalworking as a potential export industry in developing countries

This project was started in mid-1966. Methodological studies on metalworking industry operations were prepared in 1967 and country studies guided by this methodology were initiated in 1968 for Hungary and Israel (see ID/B/20/Rev. 1, para.210(a)). In the expectation that the papers on Hungary and Israel would be completed by mid-year, tentative plans were made for the holding of an expert group meeting, but due to delays in the completion of these studies, the meeting has been tentatively rescheduled for early 1969.

Authority: IDB, 1966 (ID/B/20/Rev. 1, para.210(a))

Duration: Initiated in 1966 - continuing

Estimated cost: 5 man-months

II.C.33

UNIDO/
UNCTAD

Expert working group meeting on incentives for the development of industrial exports

Originally two meetings were planned for 1968 to examine the institutional aspects of export promotion and the extent to which a greater utilization could be made of export marketing organizations in the promotion of exports. Instead, it was agreed to hold a single meeting in 1968 in co-operation with UNCTAD. The main topic of discussion at the meeting, which took place in Rome, 11 to 16 November 1968, was the application and effectiveness of the different forms of incentives to exports of manufactures from the developing countries. The purpose of the meeting was to establish guidelines for developing countries which intend to introduce export incentives, and to examine forms of technical assistance which might be given in this sphere.

11.C.33
(1967 CR: 11.E.14)

UNIDO
(UNCTAD)

Authority: IDR, 1967 (ID/B/20/Rev. 1, para. 206)

Duration: 11-12 February 1968

Estimated cost and

source of funds: \$11,000 from UNIDO regular budget

11.C.34
(1967 CR: 11.E.20)

UNIDO

Training course in the development of industrial exports, Zagreb, Yugoslavia

This is a joint programme between UNIDO and UNCTAD/GATT (ITC), initiated in 1967. It is designed to provide training for approximately 25 participants - commercial counsellors, foreign trade ministry officials, and other government representatives from the developing countries - with regard to export promotion techniques and export marketing practices. The format of the course was prepared early in 1968 and covers a range of specific subjects in the area of export production and export marketing. The training course itself was held in Zagreb from 28 October to 6 November and was attended by 25 participants and UNIDO/UNCTAD/GATT (ITC) staff representatives and business experts.

Authority: IDR, 1968 (ID/B/20/Rev. 1, para. 206)

Duration: Initiated in 1967 - continuing in 1968; training course 28 October - 6 November 1968

Estimated cost and

source of funds: \$25,000 from UNIDO regular budget

11.C.35

UNIDO

World Industrial Survey 1968

(For description see chapter I.A.19).

UNIDO

The following field projects were developed during 1968

			<u>Pro-</u> <u>gramme</u>	<u>Experts</u> <u>n/a</u>	<u>Cost</u> <u>\$</u>
11.C.36	Argentina	<u>Promotion of exports of</u> <u>manufactured goods (111-57)</u>	TA	5/18	34,020
11.C.37	China	<u>Ascertaining the potential</u> <u>for expansion of exports</u> <u>(67-116)</u>	SIS	3/9	19,500
11.C.38	Singapore	<u>Establishment of an export</u> <u>promotion centre (67-239)</u>	SIS	1/7	15,000

... and financial institutions, including investment promotion

- 11.D.1 ECA Study on foreign financial assistance
Documents examining essential aspects of foreign financial assistance were prepared in 1968 in connexion with the Algiers and New Delhi meeting referred to in 11.C.
Duration: 1968
- 11.D.2 ECA Study on the mobilization of domestic savings
ECA has commenced a study on the mobilization of domestic savings, their direction into productive investment and the role of financial institutions in this process.
Duration: 1968 - continuing
- 11.D.3 ECA Establishment of an association of the central banks
In accordance with a decision of the Conference of the Governors of the Central Banks in Africa to establish an association of the central banks, the secretariat of ECA convened a meeting in 1968 to discuss problems connected with the creation of this association in Africa.
Duration: 1968
- 11.D.4 ECA Conference on Industry and Finance
(For description see chapter XXXI.A.).
- 11.D.5 ESA Promotion of private foreign investment in developing countries
The report on Foreign Investment in Developing Countries (FIDC) was published in early 1968 and presented to the forty-fifth session of ECOSOC along with the proposal to convoke a panel on foreign investment (E/4565). A further progress report (E/4600) was submitted to the resumed forty-fifth session of the Council. These reports presented the findings and recommendation that had emerged from the comprehensive review and analysis of financial institutions and methods, and of economic, legal and administrative policies and measures which might serve to promote the flow of private capital and technological and managerial know-how to developing countries. The Fiscal and Financial Branch will consult with Governments and international institutions concerned about their experience and the opportunities for, and means of, applying the specific recommendations contained in these reports. The

11.D.5
(cont'd)

ESA

Branch will also provide assistance to interested governments in the application of measures to increase the flow of private foreign investment under conditions acceptable to all parties concerned. Preparations are underway for the convening in February 1969 of the proposed panel on foreign investment.

Authority: Fiscal and Financial Branch Project; Council resolution 1786 (XLIII) and 1797 (XLV); UNCTAD resolution 33 (II)

Duration: Proposed date of completion - 1969

Estimated cost: 1968 - 6 man-months (Professional)

11.D.6

ESA

Sources of financing for developing countries

This is a continuing survey on the sources of public and private financing available for development projects, with special emphasis on the role, functions and experience of international and national, public and private institutions as sources and catalysts of development financing, and on the laws and regulations governing access to the capital markets.

Authority: Fiscal and Financial Branch Project; General Assembly resolution 1715 (XVI)

Duration: Proposed date of completion - 1969

Estimated cost: 1968 - 6 man-months (Professional)

11.D.7

UNIDO

Mission to Iran

The mission's task was to carry out a programme to promote investment in specific industrial projects in the country. The mission discussed the implementation of this programme with the authorities in Iran.

Authority: Government request

Duration: August 1968

Estimated cost: 1 man-month

11.D.8

UNIDO

Mission to Sudan

The purpose of this mission was to review the technical assistance provided to this country in the field of industrial financing and investment promotion. Various projects are now being developed as a result of this mission which was carried out in March 1968.

Authority: Government request

Duration: March 1968

Estimated cost: 1 man-month

11.0.

11.0

Preparation of model statutes and model financial institutions for the formation, adoption and operation of industrial financial institutions

This study is aimed at the compilation of model statutes, regulations and procedures for the guidance of industrial financial institutions to enable them to carry out effectively the promotion of industrial development in the countries and areas of their location. It is expected that these models will be completed in 1969 and will be published in a manual in 1970.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 108)

Duration: Initiated in 1968 - continuing

Estimated cost: 4 man-months

11.0.10

UNIDO

Proceedings of the Athens Symposium

Six monographs are being prepared in connexion with the issues discussed at the International Symposium on Industrial Development in Athens in 1967. These relate to: domestic financing; external financing of industrial development; social aspects of industrialization; formulation and implementation of industrial programmes; regional co-operation; and promotion of export oriented industries. The first drafts have been completed, and the monographs will be published in 1969.

Authority: Athens Symposium, 1967 (ID/B/20/Rev.1/Add.1, para. 9)

Duration: 1968-1969

Estimated cost: 15 man-months

11.0.11

UNIDO

Promotion of industries through World Food Programme

UNIDO is examining the possibilities of utilizing financing derived from food assistance programmes in order to generate local resources for selected industrial projects. A programme of work has been prepared, with the collaboration of WFP, for application in a few countries.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 194)

Duration: 1968-1969

Estimated cost: 2 man-months

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of UNIDO concerning the legal status of any country or territory or of its authorities, or concerning the delimitation of its frontiers.

11.D.12

UNIDO

Study on the legal aspects of industrial financing

This study is a study on the legal aspects of industrial financing, covering a wide range of legal aspects, including private, public and mixed. It covers the legal aspects of the industry in which a lot of attention is given to the legal arrangements for factoring, factoring, leasing, and other financial and commercial law aspects, including of local practice, public and private law, and other etc. This study, which is being prepared in cooperation with the Columbia University Law School, will be carried out with similar studies which are conducted in a number of other elaboration of prototypes of legal structures and other. It is anticipated that Columbia University will complete the study early in 1969.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 103 and 104, para. 104(b)).

Duration: Initiated in 1968 - continuing

Estimated cost: 2 man-months

11.D.13

UNIDO

Guide on external sources of industrial financing

It is proposed, within UNIDO's activities in the promotion of financing of industrial projects, to develop and disseminate information on sources of financing for industrial projects. It is planned, therefore, to publish a guide on external sources of industrial financing, which will give a concise comparative presentation of the various sources of financing, the nature of their operations and the terms and conditions under which loans are made. This project was initiated in 1968, and to date a considerable amount of information has been collected, a model format has been drafted, and contacts have been made with banks and other sources of financing. The first issue of the directory is to be published in 1969.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 194)

Duration: 1968 - continuing

Estimated cost: 9 man-months

11.D.14

UNIDO

Basic technical material for the establishment or improvement of investment promotion centres

Within the broad UNIDO programme of investment promotion, which includes the provision of assistance to strengthen the appropriate machinery for investment promotion in the developing countries, it is planned to prepare models of texts needed for the establishment of such machinery. These models are expected to be prepared in a very flexible fashion, so that they can be adjusted to the needs of the recipient countries. The work initiated in this field in 1968 is expected to be completed in 1969.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 193, 194, 197)

Duration: Initiated in 1968 - continuing

Estimated cost: 4 man-months

11.D.15

UNIDO

Training programme on industrial investment promotion techniques

The first UNIDO training programme on industrial investment promotion techniques was held in New York from 15 March to 7 June 1968 in co-operation with UNIAK. This programme was the first of a series that is to be carried out in 1969 and 1970. Each programme consists of two parts: lectures, given by high level officials working in the area of investment promotion, to familiarize the trainees with these techniques; and scheduled visits to selected sources of investment and financing of industrial development in the developing countries and discussions with appropriate officials.

Authority: IDB, 1968 (ID/B/20/Rev.1/Add.1, para. 197(b))

Duration: 15 March-7 June 1968 - continuing

Estimated cost: \$25,000

11.D.16

UNIDO

Investment promotion training programmes: (a) for Spanish-speaking countries, (b) for French-speaking countries

These training programmes are planned as a follow-up of the training programme held in New York from 15 March to 7 June 1968 which was attended only by participants from English-speaking countries. They are being organized for officials from (a) Spanish-speaking developing countries, and (b) French-speaking developing countries, mainly African. While similar to the programme held in New York, these programmes will be adjusted to the needs of the countries invited. The countries to be visited will be European. These programmes are expected to start in January or February 1969 and each will last nine weeks.

Authority: IDB, 1968 (ID/B/20/Rev.1/Add.1, para. 197(b))

Duration: 1968 - continuing

Estimated cost: (a) for Spanish-speaking countries \$55,000;
(b) for French-speaking countries \$40,000

11.D.17

UNIDO

Meeting on investment promotion

This activity was given considerable emphasis by the Industrial Development Board at its first and second sessions. In keeping with this mandate, UNIDO has developed a programme for the promotion of external financing of industrial investment in developing countries.

In carrying out this mandate, UNIDO sponsored a meeting, with emphasis on the factors of industrial investment promotion which was held in Vienna from 23 to 26 September 1968. Conceived originally in the work programme of 1966 only for the Investment Promotion Centres in Europe, it was broadened to include representatives of investment promotion institutions in twenty developing countries and representatives from banking and business communities in Europe and the United States.

II.D.17
(cont'd)

UNIDO

The meeting fulfilled its purpose of developing contacts and stimulating a dialogue between developed and developing countries and of furthering co-operation among them in the field of industrial promotion. This dialogue was centered on specific proposals emanating from either the developed or the developing country representatives for the promotion of external financing at the level of a single industrial project or a group of projects. Ad hoc meetings between promoters of specific industrial projects in the developing countries and prospective investors were also organized as an integral part of the meeting programme, in order to permit discussion of specific projects and proposals between mutually interested parties.

Authority: IDB, 1967 and 1968 (ID/B/20/Rev.1/Add.1, para. 197(a))

Duration: 23-26 September 1968

Estimated cost and source of funds: \$11,000 regular budget

II.D.18

UNIDO

Workshops on financial planning for industrial enterprises
I. RCD countries (Iran, Turkey and Pakistan)
II. Kenya, Malawi, Uganda, United Republic of Tanzania and Zambia

The first of this series of workshops was held in Karachi for the Regional Co-operation for Development (RCD) countries (Iran, Turkey and Pakistan) under the sponsorship of the Pakistan Government from 5 to 30 August 1968. The workshop was attended by thirty participants from the RCD countries and a team of six experts assisted in the instructional activities of the programme. The workshop examined, inter alia, the proper and effective utilization of available resources at the enterprise level, the use of tools and techniques in this field and their adjustment to the needs of specific enterprises.

A second workshop, originally scheduled for October 1968, is to be held in January 1969 in Dar-es-Salaam. Participants are expected from Kenya, Malawi, Uganda, United Republic of Tanzania and Zambia, drawn from industrial enterprises (public and private), planning organizations, development and investment banks, and from other financial institutions in those countries. In addition to the regular programme, case studies will be made of industrial enterprises within the region, with a view to assessing their financial planning techniques and problems and demonstrating the significance of the course through these specific case studies.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 195; ID/B/20/Rev.1/Add.1, para. 197(a))

Duration: Continuing

Estimated cost: \$25,000; 4 man-months

11.0.19

11.0.20

International Industrial Equity Fund

A preliminary examination was made in 1966 of the feasibility of establishing international industrial equity funds under UNCTAD sponsorship. It is envisaged that such funds, if created, would add substantially to the volume of investment capital in developing countries.

Authority: IDA, 1966 (ID/B/20/Rev.1/Ann.1, para 14 (a))

Duration: Continuing

Estimated cost and

source of funds: \$4,500 from Consultant Funds; 1966 = 2 staff man-months

11.0.20

The following field projects were developed during 1966

			Pro- gramme	Experts m/m	Cost \$
11.0.20	Brazil	<u>Corporate financial planning (67-238)</u>	SIS	1/12	24,000
11.0.21	Cameroon	<u>Industrial financing and evaluation of projects (67-165)</u>	SIS	1/12	24,000
11.0.22	Cyprus	<u>Industrial development policy (10-503)</u>	REG	1/6	11,000
11.0.23	Fiji	<u>Establishment and operation of the Industrial Department of the Development Bank (150-67)</u>	TA	1/8	15,400
11.0.24	Iran	<u>Identification of sources of finance for specific industrial projects (68-356)</u>	SIS	2/1	850
11.0.25	Malaysia	<u>Adviser to the Economic Development Board (264-61)</u>	TA	1/12	22,000
11.0.26	Malaysia	<u>Promotion of industrial investment (68-300)</u>	SIS	1/6	15,000
11.0.27	Mali	<u>Survey of state-financed industrial enterprises (67-167)</u>	SIS	3/44	84,000
11.0.28	Nigeria	<u>Evaluation of feasibility studies for manufacturing industries and project implementation (10-61)</u>	TA	1/12	23,100
11.0.29	Pakistan	<u>Industrial credit and investment expansion of chemical manufacturing industries (73-57)</u>	TA	1/8½	13,700

11.D.30	Pakistan	<u>Technical and financial aspects of proposed projects (13-57)</u>	TA	1/18	30,000
11.D.31	Singapore	<u>Operation of Economic Development Board (264-61)</u>	TA	1/17	10,000
11.D.32	Tunisia	<u>Promoting foreign investment (67-224)</u>	SIS	1/3 weeks	2,500
11.D.33	Regional	<u>Formulation of credit strategy of Development Bank, industrial development (REG-43)</u>	SF	1/5	9,750

11.D.34

UNITAR/
UNIDO

UNITAR/UNIDO training programme in industrial investment promotion (1968-1969)

At the request of UNIDO, UNITAR assisted in the organization and operation of a special training programme attended by eighteen national officials concerned with the establishment of investment promotion centres and agencies to stimulate and facilitate the inflow of private investment capital for financing development projects in their countries. The programme was held in New York from 15 March to 7 June 1968 and included lectures and panel discussions as well as brief training at several investment promotion centres already functioning in New York. The fellowship costs of the programme were met by UNIDO. In addition to assisting in the planning of the programme, UNITAR also provided some of the administrative support needed for the operation of the programme and members of the UNITAR staff helped as lecturers in the fields of their special competence. Assistance is likely to be required in 1969 for a similar programme for national officials nominated by Governments in Latin America.

Duration: 15 March - 7 June 1968 - continuing

E. Manpower and wage policies

11.E.1
(1967 CR: 11.H.3)

ILO

Estimate of the quantitative relations between economic growth and employment viewed by branch of activity, occupation and level of education

By branch of activity: Research in this field is aimed at working out a set of tools for analysis and forecast concerning models illustrating employment by sectors based on global economic indicators; employment for the agricultural and services sectors; and labour productivity in the industrial and agricultural sectors.

11.E.1
(1967 CR: 11.G.1)

III

By occupation: Research will be primarily in the preparation of employment matrices, i.e. a breakdown of the employed civilian population by occupation in each branch of activity and the occupational co-efficients per product unit for each branch of activity. On the basis of these employment matrices, a series of forecasting methods will be proposed.

By level of education: Research in this field will be designed to prepare an employment matrix, i.e. a breakdown of the employed civilian population by level of qualification for each occupational category.

The approach for these last-mentioned studies will probably require specific analyses for various countries. It should be made clear that this research is not definitive and that it may be necessary to resort to more complex procedures based on the effect of differential labour qualification (using the concept of elasticity of substitution).

Duration: Continuing

11.E.2
(1967 CR: 11.G.2)

ILO

Industrial relations procedures and social institutions

The first phase of this project was devoted to the preparation of national monographs, covering both industrialized and developing countries; the first twelve articles have been published in the International Labour Review in 1966, 1967 and 1968. The project is now being oriented towards the comparative study of the problems posed by the participation of the occupational organizations in planning. A special volume, to appear in 1969, will be devoted to this comparative study.

A few case studies have already been prepared, as well as a study to be published in 1969, on the impact of local traditions in participative development in a number of African countries.

Duration: Continuing

11.E.3
(1967 CR: 11.G.3)

ILO

Industrial relations procedures and social institutions - Labour-Management Relations Series

In 1968 ILO published two issues of the Labour-Management Relations Series. The first issue reproduced the report submitted to the Government of Peru on mediation and conciliation of collective disputes in connexion with an ILO technical co-operation project carried out in Peru from 1965 to 1966. The second issue reproduced the report submitted to, and the proceedings of, the thirteenth session of the Asian Advisory Committee held in Singapore, November and December 1966, which dealt with the question of labour-management relations in public industrial undertakings in Asia.

Duration: 1968

11.E.4
(1967 CR: 11.G.5)

ILO

Workers' education

Practically all major study programmes conducted by international, regional and national trade union bodies in recent years have included items referring to the problem of the education of the workers. Examples of ILO collaboration with the trade union movement in this field were: technical participation in several seminars organized in Latin America by the Organización Regional Interamericana de Trabajadores (ORIT); regional organization of the International Confederation of Free Trade Unions; a seminar held in Oxford by the International Federation of Christian Trade Unions; and a regional seminar held in Africa by the International Secretariat of Post and Telephone Workers of the International Federation of Free Trade Unions. These meetings covered questions related to economic integration, utilization and development of human resources, production, productivity and industrialization. ILO representatives participated actively and appropriate ILO documents were used as study materials.

Duration: 1968

11.E.5

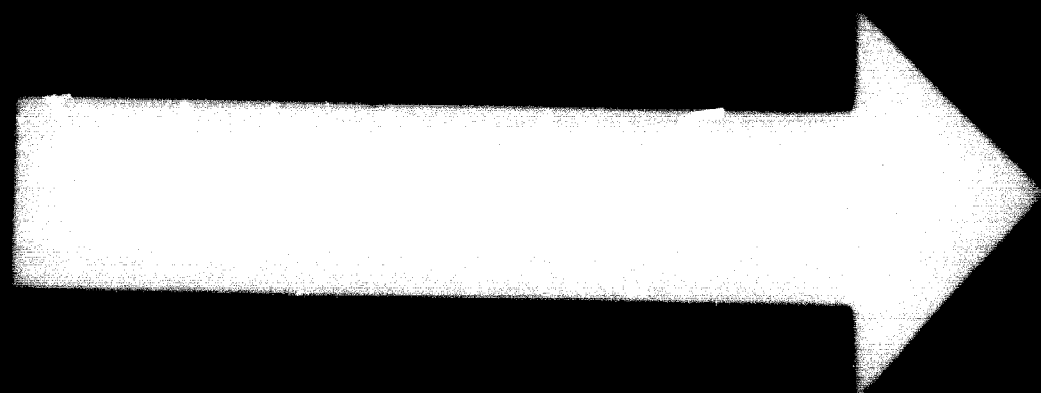
ILO

Industrial relations procedures and social institutions - technical co-operation in the field of labour relations

ILO technical co-operation in the field of labour relations continued to be carried out under various types of assistance. From 1967 to 1968, an expert assisted the Government of Cyprus in the establishment and operation of the Industrial Tribunal for twelve months under the ILO regular budget. This project was a continuation of a previous project in the field of labour legislation under which the same expert had assisted in the drafting of two important pieces of labour legislation that could not be implemented without the establishment and operation of the Tribunal.

As a sequel to the Interregional Seminar on Industrial Relations and Personnel Management, held in Denmark in 1965, ILO organized an Asian Regional Seminar on Personnel Management and Industrial Relations in Jamshedpur, India, from 23 October to 16 November 1968. The purpose of the Seminar was to enable the participants, who were mainly persons engaged in the formulation and application of personnel policies, to exchange views and experience on the application of the principles and practices of modern personnel management to the conditions of developing countries in Asia and on the problems of developing methods and procedures of personnel management suitable to such conditions. During the Seminar participants were given an opportunity to increase their information and knowledge of personnel management in the light of more recent studies and development. In Colombia, an expert carried out a survey mission from January to February 1968 in the field of settlement of labour disputes.

Duration: Continuing



16. 7. 74

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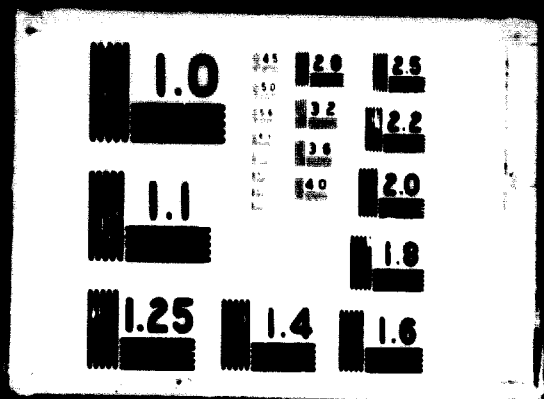
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Labour relations, research and studies in the field - expert

Under international co-operation, work projects in the field of labour relations, research and studies in the field - expert assistance in the form of expert assistance in the form of international technical experts in India, Kenya, Pakistan, Turkey, the United Republic of Tanzania and Venezuela. A personnel management expert is also being recruited for the UNDP/SF Thailand Management and Productivity Centre in Bangkok.

Duration: 1968 - continuing

11.E.7
(1967 CR: 11.G.8)

ILO

Labour legislation

ILO technical co-operation activities in the field of labour law and labour relations include expert assistance in drafting, revising and codifying labour legislation and in advising on the drafting of laws and regulations so that such texts take the fullest account both of the relevant international standards and of recent developments in the field of labour laws. Such projects are being carried out in Ethiopia and Morocco under the regular budget, in Algeria under UNDP/TA and in Peru under the UNDP/SF programmes. In addition to these specific projects, the ILO advisers and experts in the field of labour administration were frequently called upon to assist with the formulation of proposals for further labour laws and statutory provisions. These advisers were also concerned with the adoption of legislative measures necessary to the ratification of conventions applying international labour standards, most of which provide an essential infrastructure of social policy for the difficult transition from traditional to more industrialized economies.

Duration: Continuing

11.F.8
(1967 CR: 11.G.9)

ILO

Development of the role of labour administration

Under the regular budget, a programme of research continued during 1968 on the role of national labour administrations in planning for social and economic development. The report of the third session of the African Advisory Committee of ILO (Dakar, 1967) formed the basis for a work programme prepared during 1968 to meet the most urgent needs of African Governments. Its salient features were placed on the agenda of the Third African Regional Conference to be held in 1969. In addition to the emphasis on the role of the ministries of labour in the planning and implementation of social policies in step with industrial and over-all economic development, the Committee pointed the way to national labour administrations extending their responsibilities of protection and activation to a greater proportion of the work force. ILO has consequently started to prepare a new series of discussion papers concerning the closer administration of those engaged in small production units

11.F.7

ECAF

Co-operation in ECAFE development

This study is aimed at the co-ordination of the activities of ECAFE development, the availability of raw materials, production, scale and other relevant factors. The study will be prepared for the formulation of regional programs based on co-ordination of investments, production and trade policies between one or all countries of the area. The study will be led by a team of experts on the direction of the coordinator.

Authority: Advisory Group of the AEC, first session; Asia Industrial Development Council, third session, February 1966; ECAFE, twenty-fourth session, April 1966.

Duration: 18 months; 1966-1970

Estimated cost and

source of funds: \$1,000,000. The Government of the Netherlands has already indicated its readiness to contribute \$100,000 on the understanding that this amount would be available only after contributions for the balance had been obtained. Further offers were announced at the twenty-fourth session of ECAFE by the Governments of China, the Philippines, Singapore and Thailand and, in addition, the Governments of India, Japan, Pakistan, the Philippines and Singapore were prepared to provide suitable experts. Steps are being taken to seek financial assistance from the Asian Development Bank and other institutions.

11.F.8

ECAFE

UNESCO/ECAFE Ministerial Conference on the Application of Science and Technology to the Development of Asia

(For description see chapter XXX.A.3)

11.F.9

ECAFE

ECAFE/UNACAST regional Group for Asia

(For description see chapter XXX.A.4)

11.F.10

GATT

Expansion of trade among developing countries

Developing countries in GATT have agreed to explore, in the light of their obligations at regional and subregional levels and of evolving international commercial policies, the possibilities of an exchange of tariff and trade concessions directed toward the expansion of their mutual trade. A Trade Negotiations Committee of Developing Countries has been set up in GATT to establish a basis for such negotiations.

- 11.F.10 (cont'd) GATT
- At a meeting of the Trade Negotiations Committee in September 1968 it was agreed that the participating countries would initiate consultations among themselves with a view to drawing up more specific request lists for the exchange of concessions among them. Such consultations have taken place, and later in 1968 the Committee took stock of progress made.
- Duration: 1968 - continuing
- 11.F.11 UNCTAD
- Special programme on trade expansion and economic integration among developing countries
- In document TD/B/183/Add.1, submitted to the seventh session of the Trade and Development Board, the UNCTAD secretariat set out a list of 21 subjects which it wanted to study in the coming years. The list of research subjects reflects the conviction of the need for closely linking action regarding the trade and financial aspects of the problem. Apart from research activities, the programme includes preparation and servicing of meetings, advisory services, substantive support for technical assistance activities, etc.
- Authority: Approval by the Secretary-General on 1 July 1968
- Duration: 1968 - continuing
- Estimated cost: \$105,500
- 11.F.12 UNIDO
- Mission to Dahomey and Togo (DAH/TOG 056 (SIS))
- This mission surveyed the industrial potential and resources of Dahomey and Togo, and examined the possibilities of industrial co-operation between the two countries.
- Authority: Dahomey and Togo Government requests
- Duration: August - September 1968
- Estimated cost: 2 man-months
- 11.F.13 UNIDO
- Preliminary studies of policies and measures to further regional co-operation in industrial development
- These studies complement the research being carried out in the field of industrial policies and emphasize the importance of developing appropriate policies to further regional co-operation in industrial development. The scope and coverage of these investigations have been developed in 1968, and both the planning and the execution of the studies will be carried out in close co-operation with the regional economic commissions and with UNESOB. Completion is planned for early 1969.
- Authority: IDB, 1968 (ID/B/20/Rev.1, para. 192)
- Duration: 1968-1969
- Estimated cost: 3 man-months

11.F.14

UNIDO

Operational guide to regional industrial planning and carrying out studies on industrial location

This operational guide will provide technical information to experts and regional planners regarding the planning of industrial projects on a regional basis. It will also provide technical guidance with regard to the analysis of the factors bearing on regional location. A series of empirical studies was initiated in 1968 regarding several chapters of this operational guide and additional studies will be commissioned early in 1969 subject to availability of funds.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 184, 185, 186, 187)

Duration: 1968-1969

Estimated cost: \$4,500

11.F.15

UNIDO

Interregional Seminar on Industrial Location and Regional Development

This Seminar, organized by the UNIDO secretariat in co-operation with the Government of the Byelorussian Soviet Socialist Republic, the host country, was held in Minsk from 14 to 26 August 1968.

A total of 96 experts attended the Seminar. Among these were participants from 21 developing countries, who were officials directly concerned with regional planning work in their own country, and representatives of the UN regional commissions and of the UN Research Institute on Social Development. The comprehensive documentation prepared for the Seminar consisted of 19 discussion papers and approximately 30 background and country studies. Eight international experts on industrial location and regional development acted as discussion leaders of the four topics:

- The general problem of industrial location and regional development;
- Industrial location factors;
- Industrial location planning and regional planning;
- Instruments of industrial location policy.

The objectives of the Seminar were to evaluate the considerations of industry location from the standpoint of regional development in the developing countries and to provide guidance for UNIDO's operational activities in the field of industrial programming and planning.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 178, 179)

Duration: 14-26 August 1968

Estimated cost and source of funds: \$80,000 from UNDP/TA

CHAPTER III

CAPITAL INVESTMENT ACTIVITIES

A. World Bank and International Development Association Loans

III.A.1

IBRD

Bank/IDA Industrial Financing, 1967/1968

The World Bank extended \$191.5 million for industry during the 1967/1968 fiscal year. Of this total, \$159 million were accounted for by loans to fourteen private development finance companies in Ceylon, China (Taiwan), Colombia, Greece, India, Iran, Israel, Korea (Republic of), Pakistan and Tunisia. In addition to continuing its support of industry through development finance companies, the Bank lent \$32.5 million during the past year to assist specific manufacturing enterprises in Brazil and Yugoslavia.

Details of the Bank's lending during the 1967/1968 fiscal year are as follows:

III.A.2

IBRD/IDA

Brazil: \$22 million loan of January 1968 to Companhia Mineira de Alumínio (Alcominas)

This Brazilian company was formed in 1965 and sponsored by the Development Bank of Minas Gerais, the Aluminum Company of America (Alcoa) and the Hanna Mining Company. The Bank loan will assist in financing integrated mining, refining and smelting facilities for aluminum production. The operation will be located in Pocos de Caldas in the State of Minas Gerais in south central Brazil. Initial production will be 25,000 metric tons of aluminum ingot a year, approximately the quantity which Brazil has been importing annually for the past five years. It is estimated that this output will result in net savings of about \$8 million a year in foreign exchange.

III.A.3

IBRD/IDA

Ceylon: \$4 million loan to the Development Finance Corporation of Ceylon (DFCC)

The loan will provide DFCC with foreign exchange for investment in projects undertaken by private industrial, agricultural and commercial enterprises in Ceylon. During its eleven years of operations, as of 31 March 1968, DFCC has invested about \$8.4 million equivalent in 71 firms, helping to bring total investments of over twice that amount. Its investments, mainly loans, have been spread among various types of enterprises including chemical, rubber, metal and electrical products, building materials, textiles, engineering, printing and packaging, food and beverages and agriculture. DFCC expects a substantial increase in its loan commitments over the next two years; they are expected to amount to \$6.3 million equivalent, of which \$4 million would be in foreign currencies, to be financed from the Bank loan.

III.A.4

IBRD/IDA

China: \$15 million loan of August 1967 to the China Development Corporation (CDC)

The loan will increase CDC's resources to the equivalent of nearly \$63 million, including \$45 million of foreign exchange. Since 1959, CDC has invested about \$56 million equivalent in 348 projects, of which 60 were new enterprises. These projects have accounted for a sizable share of the spectacular industrial growth of China, particularly in non-traditional industries such as chemicals, high-grade textiles, food processing and electrical goods. In 1966 CDC's clients produced all of the country's output of synthetic fibres, sheet glass, motor vehicles, PVC resin, plywood, transformers and the bulk of its cement. In recent years CDC's clientele has accounted for over one third of the growing industrial exports of China. CDC expects to provide a substantial part of the investments needed to make the industry of China internationally more competitive in coming years. Future industrial investments are likely to be more capital intensive and, in the absence of a developed capital-goods producing industry, to have a growing import component. The \$15 million Bank loan is expected to meet most of CDC's foreign exchange requirements until the end of 1969.

III.A.5

IBRD/IDA

Colombia: \$12.1 million loan of May 1967 to be used by five Colombian development finance companies

The loan was made to the Banco de la República, the central bank, which will make the funds available to five companies - Corporación Financiera Colombiana in Bogotá, Corporación Financiera Nacional in Medellín, Corporación Financiera de Caldas in Manizales, Corporación Financiera del Valle in Cali, and Corporación Financiera del Norte in Barranquilla. The operations of the financieras are broadly diversified with commitments in agriculture and livestock, textiles, metals, engineering, food and beverages, paper and printing, chemicals, and other dynamic sectors of the economy. The new loan will support the financieras in their further financing of Colombian businesses.

III.A.6

IBRD/IDA

Greece: \$12.5 million of March 1966 to the National Investment Bank for Industrial Development (NIBID)

The industries assisted by NIBID since it began operations in 1964 include cement, metal products, synthetic fibres, textiles, paper, food products, building materials, electrical goods, chemical products, tourist facilities and shipping. About half of the investments were made in new firms; the other half were for expansion of existing enterprises. The Bank loan will increase NIBID's resources for financing the foreign exchange costs of investments by private enterprises in manufacturing, mining, shipping and tourism. It brings NIBID's assets to \$43 million equivalent.

III.A.7

IBRD/IDA

India: \$25 million loan of September 1967 to the Industrial Credit and Investment Corporation of India (ICICI)

In twelve years of operation, ICICI has approved financial assistance totalling \$224 million equivalent for 546 projects. ICICI's loans and investments have been distributed mainly among newer industrial sectors of the economy, such as ferrous metal products, chemicals and electrical equipment. Among projects it has assisted are those which combined will provide capacity for the production of about 7.5 million tons of cement, 175,000 tons of nitrogenous fertilizers, 220,000 tons of super-phosphates and 225,000 tons of steel tubes.

III.A.8

IBRD/IDA

Iran: \$20 million loan of May 1968 to the Industrial and Mining Development Bank of Iran (IMDBI)

This loan is the fourth made by the Bank to IMDBI, and brings total finance provided by the Bank to over \$60 million. IMDBI is now the major source of term finance for private industry in Iran. The greater part of IMDBI's commitments have been for projects in the metal processing, construction materials, chemical, electrical appliance, textile, and food processing industries. An increasing share of IMDBI operations has been the promotion of manufacturing activities new to Iran, such as a machine tool unit, a glass factory, and a rolling mill (light steel sections). IMDBI's volume of business has risen sharply in the past three years, a period of marked economic expansion in Iran. There are good indications that this trend will continue and IMDBI expects to commit about \$100 million equivalent during the next two years. The new Bank loan would go a considerable way to help IMDBI fulfil its expected foreign currency commitments during this period.

III.A.9

IBRD/IDA

Israel: \$15 million loan of September 1967 to the Industrial Development Bank of Israel Ltd. (IDBI)

The loan, which is the Bank's second to IDBI, will provide part of the funds needed by Israel's largest industrial finance company for its lending operations through 1969. IDBI's total lending in 1967 and 1968 is expected to amount to some \$80 million. IDBI loans have been widely distributed throughout the country, about half of them going to projects in less developed areas. About a third of the loans have been extended to textile and leather industries. Metals, chemicals and rubber, non-metallic minerals, food and tobacco, and paper are among other leading industries that have received loans.

III.A.10

IBRD/IDA

Republic of Korea: \$5 million loan of February 1968 to the Korea Development Finance Corporation (KDFC), made in conjunction with an IFC equity commitment of \$702,000

KDFC was sponsored by the Federation of Korean Industries and most of the Republic of Korea's commercial banks and insurance companies contributed to its financing. Participating in its establishment were, in addition to IFC and the World Bank, nine private foreign banks brought into the venture by IFC. The investment group also included the United States Agency for International Development and the Korean Government. A broad segment of the Republic of Korea's private sector, representing nearly all of the country's major industrial enterprises, in addition to commercial banks and insurance companies led the way in committing funds to KDFC. This was the first time that the World Bank and the IFC, either separately or jointly, provided finance for a project in the Republic of Korea. KDFC is the first private institutional source for long-term industrial finance in Korea. The Korean economy has expanded rapidly, with

III.A.10

III.A.10

IBRD/IDA

Industrial credit will be growing rapidly, especially in the area of close to government. It is also being provided by a credit line to exports of manufactured goods, printing and publishing. The Government is expanding the capacity of private industry. With initial resources of about \$120 million equivalent, KDFC will help meet this need. KDFC will assist primarily the manufacturing and processing industries, through medium and long-term loans, equity participation, and guarantee and underwriting of corporate securities. It will also help private enterprises in the Republic of Korea to obtain managerial and technical services.

III.A.11

IBRD/IDA

Pakistan: \$35 million loan of August 1967 to the Pakistan Industrial Credit and Investment Corporation (PICIC)

Since its establishment in 1957, PICIC has made a major contribution to Pakistan's impressive industrial growth. In the past ten years, PICIC has approved over 500 loans totalling more than \$250 million. Jute mills, food products and cotton textiles account for the greater part of PICIC's loans. Among other industries which these loans have financed are engineering, chemicals and pharmaceuticals, cement, ceramics and glass, paper and paper products and printing, and inland water transport and shipping. More than half of PICIC's loans were made to new enterprises. In addition to its loans, PICIC has substantial holdings of shares in industrial companies and has carried out underwriting operations. PICIC also has arranged or helped in carrying out industrial surveys and feasibility studies in sectors such as sugar, cement, paper, jute and textiles. The new loan is the Bank's seventh to PICIC, bringing total finance provided by the Bank to \$143.5 million. Thus far, the Bank loans have provided PICIC with nearly half of the funds required for its foreign exchange loans.

III.A.12

IBRD/IDA

Tunisia: \$10 million loan of September 1967 to the Société Nationale d'Investissement (SNI)

The loan will increase the long-term resources of SNI to about \$22 million equivalent. SNI is now the principal institutional source of long-term loan and equity finance for private industrial and tourist enterprises in Tunisia. Among the projects that SNI has financed are hotels; a wood particle board factory; food products; a food canning factory; and plants manufacturing bricks, asbestos cement, bottles, plastics, furniture, textiles, soap and plastic foam.

III.A.13

IBRD/IDA

Yugoslavia: \$12.1 million loan of 1967, continued by the Bank

The loan will provide the greater part of the foreign exchange required for the modernization of seven enterprises in iron and steel products, trucks and buses, bearings, synthetic fibres, paper and plywood. The modernization is intended to rationalize and expand production, reduce costs, and improve the quality of the products. Modernization of production facilities is an essential part of Yugoslavia's current programme to make its industries fully competitive in international markets. All projects are scheduled for completion by mid-1969.

III.A.14

IBRD/IDA

Bank/IDA infrastructure investment

In order to ensure an adequate supply of electric power for industrial and other forms of development, the World Bank has devoted over a third of its lending - \$3,626 million - to help finance the addition of about 22 million kilowatts to the world's generating capacity. As of 30 June 1968, the distribution of the Bank's lending for power development among the geographical regions was as follows: Africa, \$457.5 million; Asia and the Middle East, \$768.7 million; Australasia, \$182.3 million; Europe, \$590.5 million; and the Western Hemisphere, \$1,827.4 million. This has been supplemented by IDA credits totalling \$122.2 million.

Similarly, Bank and IDA lending totalling \$4,475 million for the development of railways, shipping, ports and water-ways, roads, airlines and airports, pipelines and telecommunications has also helped industrial development in member countries. The following table summarizes Bank and IDA lending, as of 30 June 1968, for purposes other than industry (amounts are initial commitments net of cancellations and refundings):

	<u>Bank loans</u> (in million \$)	<u>IDA credits</u> (in million \$)
Electric power	3,826.4	122.2
Transportation	3,639.1	617.0
Telecommunications	144.1	74.8
Agriculture, forestry and fishing	942.3	310.6
General development	205.0	-
Education	34.9	127.1
Water systems	74.2	34.0
Postwar reconstruction	496.8	-
Project preparation	1.7	1.6
Financing loan (IFC)	100.0	-
	<u>10,751.8</u>	<u>1,287.3</u>

B. International Finance Corporation Investments

III.B.1

IFC

IFC Investment Commitments, 1967/1968

During the year 1 July 1967 through 30 June 1968, IFC made commitments of \$50.7 million. A list of these commitments in 1967/1968 follows:

<u>Country and obligor</u>	<u>Type of project</u>	<u>Amount (US\$)</u>
Brazil - Accs Villares, S.A.	Steel (second commitment)	55,454
Colombia - Morfeo-Productos para el Hogar, S.A.	Home furniture (second commitment)	5,950
Colombia - Forjas de Colombia, S.A.	Steel forging (second commitment)	169,292
Colombia - Compania Colombiana de Tejidos, S.A.	Textiles (fourth, fifth and sixth commitments)	22,618
Ethiopia - H.V.A.-Metahara, Share Company	Sugar	9,036,025
Kenya - Kenya Hotel Properties, Limited	Hotel (second commitment)	280,000
Korea (Republic of) - Korea Development Finance Corporation	Industrial financing	702,043
Malaysia - Malayawata Steel, Berhad	Steel	3,462,722
Mauritania - Société Minière de Mauritanie	Copper mining and treatment	20,006,515
Mexico - Compania Fundidora de Hierro y Acero de Monterrey, S.A.	Steel underwriting commitment Equity investment (fifth and sixth commitments)	7,020,000 318,000
Nicaragua - Textiles Fabricato de Nicaragua, S.A.	Textiles	2,071,428
Peru - Cemento Andino, S.A.	Cement (second commitment)	61,500
Venezuela - C.A. Venezolana de Desarrollo (Sociedad Financiera)	Industrial financing (second commitment)	7,500,000
		<u>50,712,433</u>

11.E.8
(1967 CR: 11.G.10)

ILO

and in the field of labour relations, particularly in the area of collective bargaining, and in the field of labour law, particularly in the area of labour contracts and labour disputes.

Duration: 1966-1968

11.E.9
(1967 CR: 11.G.11)

ILO

Regional institutes of labour administration

In recent years ILO has paid increasing attention to the strengthening and developing national institutions of labour administration which they might cope with the profound changes occasioned by economic development and industrialization. It has become more evident during the current Development Decade that sound infrastructure of public administration is a vital factor in all the grades of modernization and development. In this regard, the ILO programme of training labour administrators has been particularly well-received by Member States, whose requests for such aid have grown steadily, and many nations have contributed additional funds, facilities and expert trainers. The method of training has become more oriented towards the establishment of permanent institutes providing training courses, seminars and some research facilities within the natural environment of each region.

The two main projects, launched in 1965 in Africa and Latin America, were further strengthened during 1968; these were the Advanced Training Centre for Labour Administrators of the francophone African States at Yaoundé, Cameroon, and the Inter-American Centre for Labour Administration in Lima, Peru. While the Yaoundé Centre concentrates mainly on intensive training courses for middle-level staff, with supplementary training for the higher grades and opportunities for admission to the International Institute of Public Administration in Paris, the Lima Centre organizes advanced training and also sends out advisory missions and distributes documents to participating states.

For the English-speaking African states, ILO plans to establish a similar institute of labour administration, in fulfilment of the recommendation made in this connexion by the third session of the African Advisory Committee of ILO. The feasibility of establishing such institutes in other regions is also under consideration.

Duration: Continuing

11.E.10
(1967 CR: 11.G.12)

ILO

Trade union research and documentation services

A regional Asian seminar on this theme is being prepared for 1969. The purpose is to improve the collection and analysis of information for use in collective bargaining and other aspects of trade union work.

Duration: 1968-1969

The Corporation's seven principal commitments in the 1967 fiscal year are described below:

III.B.2

IFC

Ethiopia

A loan, equity and underwriting commitment of \$9 million has been granted to H.V.A.-Metahara, Share Company, a new concern establishing a \$22.5 million sugar plantation and mill in Ethiopia to meet domestic needs. The tract to be cultivated is located on both sides of the Awash River, some 100 miles east of Addis Ababa. The project is expected to accelerate development of the lower Awash Valley and to provide employment for over 4,000 workers. Metahara's sponsors are United H.V.A. of Amsterdam, a leading Dutch company engaged in production of, and international trade in, agricultural commodities, and H.V.A.-Ethiopia Share Company, 80 per cent owned by United H.V.A.

III.B.3

IFC

Republic of Korea

An equity commitment of \$702,000 has been granted to the Korea Development Finance Corporation, in conjunction with a \$5 million equivalent loan from the World Bank and commitments of almost \$17.5 million in equity and loan by domestic and foreign, private and public investors, to establish the Republic of Korea's first private industrial investment institution and to help sustain the nation's rapid economic growth. The investment group included, besides IFC and the World Bank, the United States Agency for International Development, a group of nine private banks outside Korea, the Korean Government, nearly all of the Republic of Korea's commercial banks and insurance companies and a wide representation of its industrial enterprises.

III.B.4

IFC

Malaysia

A loan and equity investment of \$3.5 million has been granted to the Malayawata Steel, Berhad, a new \$26.9 million integrated steel plant, to be the first major iron and steel producing unit in Malaysia and the nation's largest single industrial enterprise. The plant's output is geared to the domestic market for rods, bars and small shapes. It was designed by Japan's largest steel company, Yawata Iron and Steel Company, Ltd., the principal sponsor and technical partner of the project.

111.8.6

IFC

Mauritania

A \$10 million loan and equity commitment has been granted to the Société Minière de Mauritanie (S.M.M.), a \$50 million project to develop Mauritania's Akait copper deposits. Société assembled an exceptionally large and diverse group of bankers: sponsors include France and the United Kingdom; the Government of Mauritania; and the European Investment Bank (EIB) which is the investment arm of the European Economic Community. The IFC commitments drew the participation of investors in Europe, the Middle East and the United States.

111.8.6

IFC

Mexico

An underwriting commitment of \$7 million has been granted to Compania Fundidora de Hierro y Acero de Monterrey, S.A. (Fundidora). This commitment is part of a \$14 million share offering to stockholders of the same company. \$318,886 shares have been subscribed as part of financing for the continued long-term expansion programme of Mexico's largest investor-owned steel producing company.

The underwriting was IFC's largest to date. It was the fourth occasion on which the Corporation has helped Fundidora add to its capital by a new share issue. Since its first underwriting of Fundidora shares in 1962, IFC has underwritten almost \$22 million out of underwritings totalling \$44 million. Fundidora, which was founded in 1900 and has a record of profitable operations going back more than half a century, manufactures a wide variety of steels, including steel plate, hot-rolled strip and cold-rolled coils, sheets, structurals, wire rods and bars. Its shares have established a strong position in the Mexican stock exchanges, where they are actively traded.

111.8.7

IFC

Nicaragua

A loan and equity commitment of \$2.1 million - IFC's first commitment in Nicaragua, its biggest in Central America and its first in conjunction with the Central American Common Market's financial institution - has been granted to the Banco Centroamericano de Integracion Economica as part of the financing of Textiles Fabricato de Nicaragua, S.A. (Fabritex), a new \$9.2 million textile mill in Managua. This was the first time that an IFC supported project in a Central American country had a technical sponsor from Latin America - the Colombian textile maker Fabrica de Hilados y Tejidos del Hato, S.A. (Fabricato).

III.B.8

IFC

Venezuela

A loan of \$7.5 million, with a grace period, was made to C.A. Venezolana de Desarrollo (S.A.) (C.A. Venezolana de Desarrollo, known as Caverdes). This was IFC's second commitment in this development bank. The first was an equity investment of \$1.3 million in Caverdes. Caverdes has played a leading role in the development of private enterprises, particularly in underwriting. It has also acted to cover foreign exchange costs of new projects and to enable Caverdes to support Venezuelan industrial expansion.

III.B.9

IFC

Study on the fertilizer needs of India

The principal purpose of the study was to ascertain India's foreign exchange requirements for the importation of fertilizers as part of a programme for agricultural improvement.

III.B.10

IFC

Promotion of new industrial ventures - Honduran pilot corporation

A new dimension of operations was opened to the Corporation with the approval by the IFC Board in July 1968 of a policy on promotion of new industrial ventures. IFC's first investment reflecting this new policy is a 7.5 per cent interest in a Honduran pilot corporation which will further efforts to develop the extensive pine forest resources in the Olancho region. The pilot corporation is being established to complete in-depth feasibility studies and to conclude agreements with the Honduran Government on the utilization of approximately 800,000 acres of forest reserves. If the studies and negotiations are successful, the new corporation will seek additional investment funds and will serve as a vehicle for the establishment of a full-scale, fully-integrated lumber, pulp and paper mill in the Olancho region.

CHAPTER IV

INDUSTRIAL PLANNING AND PROGRAMMING, INCLUDING PROJECT PLANNING

A. Methods and procedures of industrial planning and programming

IV.A.1
(1967 CR: III.A.1)

ECE

Multi-level planning and decision-making; sixth meeting of senior economic advisers

The points considered at this meeting were: the main concepts used for analysing and classifying decision-making processes; actual processes of multi-level planning and decision-making; and systems of models for multi-level planning and decision-making.

Authority: ECE resolutions 3 (XV), 11 (XVI), 11 (XIX), 11 (XX) and ECE decision 1 (XXII)

Duration: A preparatory group of experts was convened in January 1968; the plenary meeting took place on 4-9 November 1968

IV.A.2
(1967 CR: III.A.2)

ECE

Construction and practical application of macro-economic models for purposes of economic planning (programming) and policy making; fourth meeting of senior economic advisers

The discussions were focused on the actual role and position of a model builder vis-à-vis the administrations and policy makers, and on the possible role of model building in different socio-economic systems. Four main groups of models were used in the discussion on the differences in the application of models by the various countries. Of more direct relevance to industrialization were the disaggregated macro models for medium-term planning and the branch and sectoral models.

The documentation relating to this meeting, including the secretariat background paper "Construction and practical application of macro-economic models for economic planning (programming) and policy-making", eleven case studies prepared by Governments, a summary of government replies to a questionnaire and a secretariat paper outlining the major issues discussed at the fourth meeting were published in the course of 1968.

IV.A.2
(1967 CR: III.A.2)
(cont'd)

ECE

Authority: ECE resolutions 3 (XV), 11 (XVI), 10 (XVII) and 11 (XVIII)

Duration: The preparatory group met in October 1967; the fourth meeting was convened in June 1968; the documentation was published in 1968

IV.A.3
(1967 CR: III.A.4)

ILO

Technical assistance - manpower planning

In 1968, 28 countries were provided with technical assistance in the assessment and planning of manpower. In addition, five regional advisers carried out activities in these fields. Two of them were assigned to regional UN Institutes for planning and economic development in Asia and Latin America. Although this type of assistance varies according to the extent of the project and the degree of development of the national institutions dealing with planning and labour, it is generally designed to help Governments to establish or to strengthen the necessary institutions, to improve the collection of data needed as a basis for labour-policy decisions, and to diagnose the existing situation and to forecast future needs, by main economic sectors and broad categories of qualified personnel.

Projects executed during 1968

	<u>No. of experts</u>	<u>Man-months</u>
Algeria	4	38
Brazil	1	12
Ceylon	1	12
Chile	1	2
China	1	11
Congo (Brazzaville)	1	12
Costa Rica	1	12
Cyprus	1	1
Dahomey	1	12
Guinea	1	1
India	1	9
Indonesia	1	4
Iran	1	12
Liberia	1	12
Libya	4	43
Malaysia	1	8
Morocco	1	8
Nepal	1	9
New Hebrides	1	2
Pakistan	5	60
Panama	1	12
Peru	1	12
Philippines	1	12
Senegal	1	9
Somalia	1	12
Thailand	1	6
Tonga, Western Samoa	1	2
Viet-Nam (Rep. of)	1	2

IV.A.4

UNIDO

Survey of industrial plans and programmes

The purpose of this survey is to examine industrial plans and programmes in the developing countries from the point of view of their methodology and performance. In its initial phase, the survey will be limited to a sample of five countries. Work during 1968 consisted of reviewing technical studies that were commissioned in 1967 and completed in 1968, and of finalizing arrangements for setting up country study groups in the five selected countries: Hungary, Iran, Israel, Mexico and Yugoslavia.

These five country studies will be used to establish the basic guidelines for the field missions on industrial planning and programming, which are to begin in 1969 and which will be undertaken as a regular contribution to UNIDO's field operations (see Work Programme 1970, Group 12 (ID/B/44)). In addition, as new data are compiled by these field missions, they will be disseminated from 1970 on in the form of a special study series entitled "Industrial programming - country experience".

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 183)

Duration: 1968-1971

Estimated cost and source of funds: \$17,000 from Consultant Funds

IV.A.5

UNIDO

Industrial programming manual

This manual will provide a source of basic reference for training courses, workshops and seminars in industrial programming, and will also be used as an operational guide-book for technical assistance experts in the field. Draft chapters commissioned in 1967 have been evaluated during 1968 and the material has been prepared for internal reproduction. New contacts have also been established for the commissioning of the unfinished chapters. The first draft will be circulated for comments and evaluation to international experts in this field and to UN technical assistance experts later in 1969.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 190)

Duration: 1968-1969

Estimated cost and source of funds: \$5,500 from Consultant Funds

UNIDO The following field projects were developed and programmed:

			Man- months	Expert days	Cost \$
IV.A.6	Congo, (Dem. Rep. of)	<u>Organizing a project evaluation team to deal with industrial and capital investment projects (68-273)</u>	4/6	1/10	1,000
IV.A.7	Ghana	<u>Establishment of systematic methods of planning and implementation of production targets (46-61)</u>	1A	4/18	27,400
IV.A.8	Iran	<u>Industrial sector programming (68-271)</u>	SIS	1/10 days	1,000
IV.A.9	* Philippines	<u>Establishing a working system for market studies (67-254)</u>	SIS	1/3	1,000
IV.A.10	Regional	<u>Regional industrial development with ECLA (322-67)</u>	1A	1/18	27,050

B. Organizational requirements for industrial planning and programming

IV.B.1 UNESOB/
UNIDO Advice on the administrative overhaul of the Directorate General of Industrial Planning, Ministry of Industry, Iraq

Upon a request from the Government of Iraq, a three-man mission was arranged and sent by UNIDO to Baghdad to study and advise on measures aimed at improving the present set-up of the Ministry of Industry and especially its Directorate General of Industrial Planning. The mission concentrated on problems of co-ordination between substantive departments and government agencies. Various measures were proposed for action, especially in the field of project implementation, planning and follow-up.

The regional adviser in industrial development attached to UNESOB participated in the mission.

Authority: General Assembly resolution 2152 (XXI); IDB resolution 5 (11)

Duration: 3 weeks; 1968

Estimated cost and source of funds: \$1,400 from UNDP

1111

1110

Advisory mission to the Democratic Republic of the Congo

At the request of the Government of the Democratic Republic of the Congo, a two-man advisory mission was sent by UNIDO to Kinshasa for the purpose of assessing the necessity of establishing a centralized service for the evaluation of industrial projects in the Congo. After intensive meetings with all the ministries involved, the mission concluded that:

- There was an immediate need to undertake an evaluation of all industrial and related capital projects promoted by local and foreign investors before these projects
- were submitted to the interministerial co-ordinating body for approval. It was recommended that a team of experts should be made available in the Congo to help carry out this evaluation task
- The expert team should also promote, at home and abroad, projects in priority fields specified in the national development programme, and, when feasible, prepare the necessary documentation
- The team should maintain for future reference a central documentation unit with copies of all evaluated projects, up-dating and re-writing them when necessary

The mission also made recommendations regarding the composition of the expert team, the corresponding job descriptions and the working arrangements essential to the successful co-ordination of the projects of each of the individual ministries.

Authority: Government request

Duration: June-July 1968

Estimated cost and source of funds: \$17,000 from SIS Funds

IV.B.3

UNIDO

Technical assistance exploratory mission to Iraq

A mission was undertaken to investigate the present status of industrial development in Iraq with a view to assessing the needs for an industrialization survey and the preparation of the industrial component of the next five-year economic plan (1970-1974). A study was also made of the organization and work programme of the Ministry of Industry of Iraq, and recommendations were submitted regarding administrative reforms and the programming, co-ordination and follow-up of industrial project implementation.

Authority: Government request

Duration: June-July 1968

Estimated cost: 1 man-month

IV.B.4

UNIDO

Pre-sessional field investigations for the international working party on industrial programming data

The field studies undertaken for this project related to the holding in 1968 of the first interregional session of the International Working Party on Industrial Programming Data, to the carrying out of selective field studies and to the completion of organizational arrangements for the subsequent 1969 meeting. The purpose of the field investigations was to study the feasibility of establishing a permanent machinery structure for interregional data bank operations in industrial programming and project planning.

Authority: IDB, 1968 (ID/B/20/Rev.1/Add.1, para. 189(b))

Duration: 1968

Estimated cost and source of funds: \$10,000 from Swedish grant

UNIDO

The following field project was developed during 1968

IV.B.5

Iraq

Industrial planning and development
(68-275)

<u>Pro-grams</u>	<u>Experts</u> <u>n/a</u>	<u>Cost</u> <u>\$</u>
SIS	1/2 weeks	600

C. Development of programming data

IV.C.1

ECAFE

Fact-finding team on industries manufacturing agricultural machinery

A fact-finding team has gathered information and consulted authorities concerning the need for, and possibilities of, establishing or expansion of manufacturing plants for agricultural machinery in twelve countries of the region which expressed interest in receiving such a team. The fact-finding team visited Ceylon, China (Taiwan), India, Indonesia, Iran, Korea (Republic of), Malaysia, Nepal, Pakistan, the Philippines, Singapore and Thailand. The team was composed of three experts contributed by the Governments of India, Italy and Japan; a secretariat staff member representing UNIDO and a UNIDO Consultant. Prior to the team's visit, country reports based on guide-lines furnished by the secretariat were prepared by correspondents nominated by Governments. Depending upon the team's findings, a full-scale survey mission might be sent to these countries later on.

Authority: Recommendations of the Action Group on Engineering Industries

Duration: 3 November 1968 - 18 January 1969

Estimated cost and

source of funds: \$10,000. The travel costs and per diem for the ECAFE staff member, estimated at \$3,400, were paid by UNIDO. ECAFE paid the travel costs and per diem of the Indian expert. In addition, the Governments of Italy and Japan contributed experts and paid for their salaries, travel costs and per diem

IV.C.2

ECAFE

Energy resources development - Comprehensive energy surveys; studies on long term energy balance of the region

The purpose of this project is to survey the energy resources of countries of the ECAFE region. The secretariat prepared and issued in 1967 a document outlining the procedure on comprehensive energy surveys. This document provides the detailed procedure for undertaking energy studies by the countries. Further action will be required for providing assistance to the countries in undertaking their surveys, and for collecting and compiling regional basic data.

Authority: Sub-Committee on Energy Resources and Electric Power; Commission and Committee on Industry and Natural Resources

Duration: Long-term project; studies on regional energy balance and power requirement will be undertaken in 1970 if resources from OIC become available

Source of funds: Co-operation of UNDP or regular programme of technical assistance may be required by the countries, through country's programme, and by the secretariat in providing services of experts

II.E.11
(1967 CR: II.H.12)

ILO

Rights of trade union representatives and participation of workers in decisions within undertakings

Following the Technical Meeting on the Rights of Trade Union Representatives and Participation of Workers in Decisions within Undertakings, held in Geneva in November 1967, the Governing Body of ILO decided at its 173rd session (November 1968) that the question of protection of, and facilities for, workers' representatives within undertakings should be included in the agenda of the fifty-fourth session (1970) of the International Labour Conference with a view to adopting an international instrument for the implementation of such measures as may be found necessary.

Duration: November 1968

II.E.12

ILO

Reports for the Second European Regional Conference

Following a decision taken by the Governing Body of ILO at its 169th session (May 1967), two reports, one dealing with the broad social implications of technological change in Europe for this region and the rest of the world (Report I) and the other concerning manpower aspects of recent economic development in Europe (Report II), were prepared during 1968.

Duration: 1968

Estimated cost and

source of funds: 15 man-months from ILO regular budget

II.E.13
(1967 CR: II.H.2)

ILO

Ottawa Plan for the development of human resources

A team of experts on labour questions, economics and econometrics, posted at Santiago since May 1968, forms the main agency for the implementation of the Ottawa Plan for the development of human resources, adopted in 1966 by the Eighth Conference of American Member States of ILO. The team consists of seven experts: five ILO experts, one from ECLA and one provided by UNESCO. At the end of 1968, one FAO expert, three experts from the Inter-American Development Bank and one from the OAS joined the team. The immediate tasks of the team are:

- To gather and analyse all statistical data on the present employment situation in the Latin American countries; these initial operations include a study of trends, a study of the influence of certain policy instruments and an analysis of the structural relations between employment and development policies;
- To make projections, by sector, of the employment situation for 1975 and 1980;
- To outline alternative development policies that would make it possible to increase productive employment and to intensify the training of qualified personnel.

IV.C.3

ECAFE

Mining Development Review - dissemination of information

The purpose of this annual publication is to review progress and to disseminate information on mining development in the ECAFE region. The information published is useful for studies on and planning for, developing countries. Annual reviews have covered the period 1954-1966 and the 1967 review is under compilation for issue in 1969.

Authority: Committee on Industry and Trade, sixth session, 1954; ECAFE, tenth session, 1954

Duration: Continuing

Source of funds: ECAFE regular budget

IV.C.4

ECAFE

Fact-finding team on forest-based industries

The purpose of this fact-finding team on forest-based industries was to look into the availability of the necessary technical and economic data and to make suggestions concerning the collection of further data. The project covered China, India, Indonesia, Japan, Korea (Republic of), Laos, Malaysia, Pakistan, Philippines and Thailand. The results of this fact-finding will form the basis for drawing up the terms of reference for one or more action groups that might be set up later.

Authority: AIOC, second and third sessions

Duration: July-October 1968

Estimated cost and

source of funds: \$4,500 from ECAFE regular budget; the Governments of New Zealand and Japan, as well as FAO, each provided the services of one expert and bore his travel costs and per diem

IV.C.5

ECAFE

Fact-finding team on petrochemical industries

The purpose of this fact-finding team on petrochemical industries was to assist the countries of the region to avoid the establishment of uneconomical petrochemical units and to achieve economies of scale through market-sharing arrangements. The project covered China (Taiwan), India, Indonesia, Iran, Korea (Republic of), Pakistan, Singapore and Thailand.

On the basis of the expressed wishes and interest of the eight countries concerned, a fact-finding team consisting of an outside consultant and an ECAFE staff member visited the countries to ascertain the nature and extent of interest in the manufacture of specific petrochemical products on a co-operative basis. Prior to the visit of the team, Governments were furnished with a questionnaire and were requested to nominate a representative who could be contacted directly by the secretariat to facilitate the task of the fact-finding team. Upon return to headquarters the team prepared a report for submission to the fourth session of AIOC and to the countries concerned.

- IV.C.5
(cont'd)
- EEAF
- Authority: Action Group on Electrotechnical Industries, IDB; AIDC, third session
- Duration: 7 September - 10 September 1967; 16 September 1967 - 7 January 1968
- Estimated cost and source of funds: \$11,000 from ECAF regular budget
- IV.C.6
- ECAF
- Development of electrical manufacturing industries
(For description see chapter VIII.3)
- IV.C.7
(1967 CR: III.C.1)
- ECLA
- Industrial planning and programming data
- The work of ECLA on industrial planning and programming is closely related to the activities on specific sectors of industry. These studies by branches of industries constitute a useful source of programming data as well as an important aid in the formulation and implementation of plans and programmes for sectoral development. In addition, talks have been initiated with UNIDO on joint ECLA/UNIDO action in Latin America regarding a project on industrial programming data. Due to a lack of personnel, it was not possible to make any progress on a study of capital coefficients and of other relationships of interest in manufacturing industry.
- Duration: Continuing
- IV.C.8
- UNIDO
- Collection and analysis of data relevant to sectoral forecasts for 1970-1980
- The Industrial Sector Development Section of the Industrial Technological Division started with the collection of techno-economic data regarding trends and prospects for 1970 and subsequent years for selected industrial products and product groups (industry branches). Parallel with the macro-economic projections carried out by UNIDO in another project, work was initiated on sectoral (branch) forecasts, using an empirical approach on the basis of information available from various sources, including publications, direct industry sources, planning data and industrial projects. Projects initiated in 1968 cover steel, non-ferrous metals, textiles and chemical industries.
- Authority: IDB, 1968 (ID/B/41, para. 244)
- Duration: July-December 1968
- Estimated cost and source of funds: \$10,000 from Consultant Funds

IV.C.9

UNIDO

Projection of output of manufactured commodities for the Second Development Decade study

The Survey Section, in addition to co-ordinating UNIDO's work in connexion with the Second Development Decade, had been engaged in compiling data on the output of manufactured commodities up to 1960. This work, carried out in co-operation with other sections in UNIDO and with the COWPP, took into consideration the recommendations of the Development Planning Committee. Three consultants assisted in the work in 1968, and field work, initiated by COWPP and ICA and devoted primarily to the development of data for the Second Development Decade, was carried out in East and West Africa. UNIDO also participated in the third session of the Development Planning Committee which discussed the preparatory work for the Second Development Decade.

Authority: General Assembly resolution 2218 (XXI); ECOSOC 1157 (XLI) and 1178 (XLI); IDB, 1968 (ID/B/20/Rev.1/Add.1, para. 221)

Duration: 10 months; March-December 1968

Estimated cost and source of funds: \$8,850 from Consultant Funds

IV.C.10

UNIDO

UNIDO contribution to the Second Development Decade projections and policies: Long-term projections of industrial outputs, employment, exports and imports

In response to the request of the Committee for Development Planning for UNIDO participation in the preparation of a preliminary framework of international development strategy for the 1970s, an extra-programme task force was organized within the Industrial Policies and Programming Division during 1968. The participation of the substantive staff in the field of industrial planning and programming in this over-all UNIDO task force took the form of a special statistical study on the trends and structures of industrial development and a tentative projection of industrial outputs, employment, exports and imports for the developing countries and regions for the period 1970-1980. This study, submitted to the Committee for Development Planning at the end of 1968, was based on an econometric analysis of statistical information on manufacturing industries currently available from the UN Statistical Office.

The projection tools developed through this study serve to up-date the Study of Industrial Growth (Sales No.:63.11.B.2), which was prepared several years ago by the UN Centre for Industrial Development and which was in need of substantial revision to cover both the demand and supply side of the industrial structure. The variables to be projected are: value added and employment by ISIC 2 and 3-digit manufacturing groups; industrial commodity imports and export trends classified by ISIC 2-digit industry groups; and production of, and demand for, some 60 selected major industrial commodities. The major pre-determined variables relate to the broad expenditure categories of gross domestic product, the latter serving as the link between the UNIDO and the UN/COWPP projection models.

IV.C.10
(cont'd)

UNIDO

The study was undertaken and completed in co-operation with the UN Computing Centre at New York.

Authority: General Assembly resolutions 2218 B (XXI) and 2505 (XXII); ECOSOC resolutions 1152 (XLI) and 1260 (XLIII); IDB, 1968 (ID/B/20/Rev.1/Add.1, para. 221)

Duration: 1968

Estimated cost: 8 man-months in 1968

IV.C.11

UNIDO

Comparative study on profiles and other programming data - technical studies on data-bank techniques for industrial programming

A study reviewing current data bank techniques, specifically in industrial corporate planning and market research, was prepared as a supporting document for the International Working Party on Industrial Programming Data, which met in Vienna from 17 to 18 November 1968. This study constitutes part of a feasibility study concerning the establishment of a data-bank type operation, on a subregional basis, to provide a continually up-dated and reasonably comprehensive list of existing and proposed industrial plants in the developing countries.

In addition, a comparative study on Profiles (i.e. an analytic digest of Profiles Vol. I and II) has been prepared in 1968 and will be published in 1969. This digest is designed to provide a guide for the non-expert users of the Profiles series. It includes: a synthetic evaluation of basic techno-economic parameters relating to equipment requirements, pricing policies, productivity, product-mix variation, capacity utilization etc. in various industries; and comments of industrial experts on the descriptive details of individual profiles involved in Vol. I and II, especially concerning the listing of major equipment, manning tables and raw material input-mix.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 182; ID/B/20/Rev.1/Add.1, para. 189b(c))

Duration: 17-18 November 1968

Estimated cost and source of funds: \$7,000 from Consultant Funds

IV.C.12

UNIDO

International Working Party on Industrial Programming Data

The first session of the International Working Party was held in Vienna from 19 to 27 November 1968. This meeting served as an introductory session to regional working sessions planned for 1969 concerning the development of industrial programming data systems of common relevance to the regions and to the developing countries themselves.

Special emphasis was placed on the formulation of concrete action programmes aimed at the improvement of the international co-ordinates for multi-national plan harmonization. Participants in the first session were drawn directly from the Regional Economic Commissions, UNESOB, East African Development Bank, Central American Common Market institutions etc., from which a preliminary "standing task force" of the Working Party was organized. Attending also were expert-consultants regularly involved in the supporting research activities of UNIDO in the field of industrial programming. The agenda of the first session included several specific project proposals to be carried out in the different regions or subregions on a mutually co-ordinated basis. These included: Profiles of manufacturing establishments, Profiles of pre-investment industrial projects, time profiles of industrial project implementation and industry file system for subregional groups.

Authority: IDB, 1968 (ID/B/26/paras. 219-220; ID/B/20/Rev.1, para. 125)

Duration: 1968-1971; meeting held from 19-27 November 1968

Estimated cost and

source of funds: \$10,000 for the meeting from UNIDO regular budget

IV.C.13

UNIDO

Structure of material inputs in manufacturing industries and inter-industry relations

Detailed input-output tables and their supporting statistics (from Finland, Japan and the United States) were re-assembled for comparison. The purpose of the analyses was to provide a detailed technical framework for a data-bank type approach to the inter-industry data of immediate practical use for the formulation of industrial development programmes and for the evaluation of industrial projects. For this purpose, the analyses covered:

- Comparison of the product-mix of each identified productive sector;
- Comparison of input coefficients at the 190 x 190, 106 x 190 and 106 x 106 levels;
- Evaluation of "major" coefficients and bloc-diagonality;
- Evaluation of the effects of cross-country transplantation of technical coefficients.

IV.C.13
(cont'd)

UNIDO

The results of the completed analyses were drafted in 1968 and will be published in 1969.

Authority: IDB, 1967 and 1968 (ID/B/4 para. 44; ID/B/20/Rev.1, para. 182)

Duration: 1967-1968

Estimated cost and source of funds: 5 man-months UN Computing Centre services

IV.C.14

UNIDO

Preparation of "Profiles of Manufacturing Establishments" (ID/SER.E/5) and other industrial programming data for general dissemination

Profiles of Manufacturing Establishments, Vol. II (ID/SER.E/5) was published during 1968, Vol. I (ID/SER.E/4) having been printed in 1967. The study on Structure of Material Inputs in Manufacturing Industries and Inter-Industry Relations (ID/SER.E/6) has also been completed for publication in 1969.

New ad hoc working teams have been organized in Austria, Ethiopia, Germany (Federal Republic of), Mexico, Uganda, United Republic of Tanzania and Zambia for the compilation of additional Profiles from the industrial establishments in these countries; arrangements are being completed also with an Iranian team. The results, as received, are being organized for Profiles Vol. III and Vol. IV (1969 publications).

These two new volumes represent phase II of the project; certain modifications have been effected with respect to the extent of information to be compiled and also the method of selecting candidate establishments. For the future extension of the project, an additional Profiles series - "Profiles of Pre-investment Industrial Projects" based on an analytical collection of pre-investment feasibility studies on industrial projects - is being considered for 1969-1970 implementation in co-operation with an ECLA/Inter-American Development Bank project of a similar nature and under the working arrangements being established by the International Working Party on Industrial Programming Data.

Authority: IDB, 1967 and 1968 (ID/B/20/Rev.1, para. 181 (A))

Duration: 1966-1971

Estimated cost and

source of funds: \$14,000 from UNIDO regular budget;
\$15,000 from Swedish grant

Of the original appropriation of \$20,000 from UNIDO regular budget, \$2,000 was utilized for the UNIDO participation in the ECOSOC mission in African subregions, September-November 1968

IV.C.15
(1967 CR: VI.22)

UNIDO

Situation, problems and prospects of main industrial sectors

The Industrial Sector Development Section of the Industrial Technological Division continued with the collection and analysis of techno-economic data and initiated new research projects in the fields of iron and steel, non-ferrous metals and pharmaceuticals. The information collected will be analysed and interpreted in 1969; the final report will highlight major issues and recommend priorities for sectoral projects.

Within this continuing programme the Section prepared for submission to the Second Interregional Symposium on the Iron and Steel Industry, Moscow, USSR, 19 September - 9 October 1968, a "Review of the activities of the United Nations in the iron and steel industry in developing countries". The paper assesses both the operational and non-operational activities of the United Nations in this field during the period after the First Interregional Symposium in Prague and Geneva in 1963 on the applications of modern technical practices in the iron and steel industries of developing countries. This document has been reproduced internally under ID/WG.14/66 without formal editing.

Authority: IDB, 1968 (ID/B/1 ev.1, para. 218 and 219)

Duration: June - December 1968

Estimated cost and

source of funds: Roubles 8,350 financed from the Soviet voluntary contribution for the "Iron and Steel Survey"; Roubles 10,400 financed from the Soviet voluntary contribution for the "Non-ferrous Metals Survey"; \$17,000 to be sponsored by the pharmaceutical industry for the "Pharmaceutical Industry Survey" (no UNIDO funds were used in 1968)

UNIDO

The following field projects were developed during 1968

			<u>Pro-</u> <u>gramme</u>	<u>Experts</u> <u>n/n</u>	<u>Cost</u> <u>\$</u>
IV.C.16	Malaysia	<u>Project identification, formulation and development (68-300)</u>	SIS	1/6	12,000
IV.C.17	Mexico	<u>Resource surveys of the State of Oaxaca (MEX-10)</u>	SF	1/6	16,000

Regional and Industrial Development Programmes

IV.D.1
(1967 CR: III.D.1)

Long-term planning and programming; selection of senior economic advisers

Quantitative discussions are to be concentrated, inter alia, on an overall view to the objectives and methodology of long-term studies and on the varied experiences of countries in this field. This topic will cover certain aspects of future relations between industrialized countries and the developing countries. The meeting will also discuss an overall work programme to be undertaken in the field of long-term planning and programming, including the selection of the most relevant areas for further studies conducive to strengthening region-wide co-operation.

Authority: ECE resolutions 3 (XV), 11 (XVI), 11 (XIX), 11 (XX) and 7 (XXII); ECE decisions 1 (XXII), H (XXIII) and I (XXIII)

Duration: The Preparatory Group for this Meeting was convened in January 1968 and the Meeting is expected to be held in June 1969

IV.D.2 FAO

FAO - Indicative World Plan

(For description see chapter XXXII.D.3)

IV.D.3
(1967 CR: III.D.4)

ILO

Regional seminars on trade union participation in social and economic planning

A further regional seminar on this theme had been organized in 1968 in Asia; another is planned for the Near East in 1969.

Duration: 1968-1969

Source of funds: ILO regular budget

IV.D.4 UNESCO

Plan Formulation and Development Perspectives in the Industrial Sectors of Selected Countries in the Middle East

This study will supplement the one prepared in 1967/1968 on Plan Formulation and Development Perspectives in Selected Countries in the Middle East, submitted to the Meeting of Development Planners, Beirut, June 1968, and to ECOSOC at its summer session in 1968. The proposed study will analyse past trends and future growth prospects of the industrial sectors in selected countries of the Middle East, within the medium overall economic growth developed in the 1960s. In the study, the new study will give in some detail the demand and production functions of the industrial sectors, on the basis of certain reasonable assumptions underlying the potential growth of these sectors. The study will also analyse the impact of industrial growth on the balance of payments of these countries.

IV.D.4
continued

UNIDO-

Authority: ECODUC resolution No. XXVIX, paragraph 10, sub-paragraphs 1, (11) and 1 (11)

Duration: Date of completion: 7/1/68

Estimated cost and

source of funds: \$15,000 from UNISOL regular budget

IV.D.5

UNIDO

Sectoral planning and programming studies

This project involves the preparation of a study on sectoral planning of industry undertaken for the purpose of providing information on programming data and techniques that are useful in the planning and programming at the sectoral or industry level to planners and programmers. In 1968 the drafts, commissioned in 1967, concerning the iron and steel sector were evaluated and the re-worked drafts were submitted to the consultant for further comment and evaluation; these will then be utilized within the broader framework of research and field operations in industrial programming.

The study deals with the following aspects of programming in the iron and steel sector: raw materials; iron manufactured articles; steel manufactured articles; rolling mill products; integrated and non-integrated steel mills; and future trends.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 188, 189)

Duration: 1967-1969

Estimated cost: 1 man-month and Consultant Funds

UNIDO

The following field projects were developed during 1968

			Pro- gramme	Experts m/m	Cost \$
IV.D.6	Argentina	<u>Study of resource potentials for industrial development (111-57)</u>	TA	1/3	5,670
IV.D.7	Colombia	<u>Assistance in production planning (68-278)</u>	SIS	1/6	13,720
IV.D.8	Cyprus	<u>Programme evaluation (X80-451)</u>	TA	1/12	12,000
IV.D.9	Dahomey and Togo	<u>Survey of industrial development potentials (67-199)</u>	SIS	4/8	20,000
IV.D.10	Dominican Republic	<u>Preparation of market studies (9000-68)</u>	TA	1/12	15,000
IV.D.11	Ecuador	<u>Preparation of an industrial development plan (51-60)</u>	TA	1/12	25,800
IV.D.12	Ecuador	<u>Evaluation of industrial projects (51-60)</u>	F-in-I	1/10	11,200
IV.D.13	Haiti	<u>Industrial programming and project planning (68-284)</u>	SIS	3 4/3	12,000

			Pro- gramme	Experts m/m	Cost \$
IV.D.14	Iran	<u>Evaluating programmes of the industrial sector (220-57)</u>	TA	1/14	27,000
IV.D.15	Liberia	<u>Industrial planning and project evaluation (10-97)</u>	REG	1/6	15,000
IV.D.16	Madagascar	<u>Advice on problems of industrial development (1-64)</u>	TA	1/16½	28,000
IV.D.17	Nicaragua	<u>Evaluation of feasibility studies for manufacturing industries and project implementation (181-57)</u>	TA	1/12	23,100
IV.D.18	Niger	<u>Industrial programming and project evaluation (10-362)</u>	REG	1/7	13,300
IV.D.19	Pakistan	<u>Review of industrial policy and appraisal of industrial development programmes (73-57)</u>	TA	3/46	79,500
IV.D.20	Peru	<u>Projections for basic petrochemical products (105-57)</u>	TA	1/8	14,600
IV.D.21	Philippines	<u>Preparation of investments priorities plans (67-254)</u>	SIS	1/12	25,000
IV.D.22	Philippines	<u>Implementing the Investment Incentives Act (67-254)</u>	SIS	1/1	25,000
IV.D.23	Romania	<u>Promotion of certain projects under the SIS programme (68-317)</u>	SIS	3/12 days	800
IV.D.24	Saudi Arabia	<u>Fellowship in industrial development (10-896)</u>	REG	1/6 fellows	3,600
IV.D.25	Somalia	<u>Industrial programmer and industrial cost account (214-67)</u>	TA	2/12	25,000
IV.D.26	Sudan	<u>Preparation of programme for the industrial sector (225-61)</u>	TA	1/12	22,000
IV.D.27	Togo	<u>Industrial development programming (199-67)</u>	TA	2/15	29,100
IV.D.28	Regional	<u>Formulation of industrial policies and programmes (10-1102)</u>	REG	1/12	30,500

II.E.13
(cont'd)

ILO

Furthermore, the study on the application by Latin American countries of policies to promote employment in keeping with the principles laid down in the ILO recommendation on employment policy is being continued. Two case studies (Peru and Colombia) have been completed and others are in preparation.

A Technical Information Meeting on the Ottawa Plan was held at Rio de Janeiro from 21 to 27 October 1968 to inform Latin American technologists specializing in labour questions of the objectives and scope of the Plan and of action methods. The other international and regional organizations concerned were invited to send representatives.

Duration: 1968 - continuing

II.E.14
(1967 CR: II.H.5)

ILO

Asian manpower plan

The execution of an Asian manpower plan was recommended by the ILO Asian Advisory Committee in December 1966. Detailed proposals concerning activities to that end were considered by the ILO Asian Regional Conference in September 1968. Like the Ottawa Plan, the Asian plan has as its dual objectives the search for, and promotion of, appropriate solutions to the problems of expanding employment and improving qualifications within the framework of the economic development of Asian countries.

In 1968 the following activities were carried out, in preparation for launching the plan, by a small regional nucleus of experts set up at Bangkok:

- Analysis of existing documentation (statistics, projections and other data) concerning the supply and demand for labour in the various sectors in Asian countries;
- Case-studies for the selection of a methodology that could be used for purposes of diagnosis and projections on labour, concerning the prospects for employment, unemployment, under-employment, and the supply and demand for qualified personnel in Thailand.

Duration: Continuing

II.E.15

ILO

ILO Interregional Seminar on Salaries and Wages

The purpose of this Seminar was to bring together persons responsible for wage questions in government, employers and workers organizations to study principles and methods of wage determination and wage protection for developing countries. Representatives from fourteen developing English and French-speaking countries participated.

Duration: 3 weeks; 1968

Estimated cost and

source of funds: \$59,450 from UNDP/IA (including a contribution of the Danish Technical Co-operation Board)

E. Project preparation and implementation

IV.E.1
(1967 CR: III.E.2)

ECA

Second session of the Conference of African Planners

As a follow-up to the above meeting, held in Addis Ababa, December 1967 the following papers were published in ECA:

- "Project identification services - proposed organization and structure" (E/CN.14/CAP/26)
- "Selection criteria for industrial project identification" (E/CN.14/CAP/36)
- "Suggestions for establishing project identification services in Africa" (E/CN.14/CAP/10)
- "A five-step method to identify bankable development projects" (E/CN.14/CAP/38)

Forty-seven participants from 25 Member States took part in the session. Observers from ten countries participated in the Conference. The United Nations system of organizations was represented by ILO, FAO, UNESCO, WHO, UNICEF, UNDP and COPPP.

Duration: 1968

IV.E.2

ECAFE

Iron and steel pre-investment feasibility studies

The purpose of these studies is to carry out pre-investment feasibility studies in China, Indonesia, Singapore and Thailand in connexion with the following four projects recommended by the Iron and Steel Survey Mission:

- A mill should be established in China to produce hot rolled coils and plates for the eastern subregion;
- A mill for the production of billets should be established in Singapore to meet the needs of the whole region;
- A cold rolling mill should be established in Thailand to meet the entire market demand from the western subregion;
- Indonesia should continue its efforts to meet its entire requirements of merchant bar-iron.

AIDC, during the course of its third session, was informed that the Government of Japan was prepared to undertake the pre-investment feasibility studies on the above four specific projects at no cost to AIDC or to the Governments concerned. In order to speed up the work, two separate teams - each consisting of about eight highly qualified Japanese experts and a staff member from the secretariat - were organized. The first team was dispatched in June and July 1968 to China, the Philippines and Indonesia. The second team was dispatched in July and August 1968, after the return of the first team, to Malaysia, Singapore and Thailand. The reports of the two teams were co-ordinated and one consolidated report was prepared in Japan and completed in December 1968.

IV.E.2
continued

ECAFE

The Government of India provided the experts to undertake a feasibility study of the proposed mill that is to produce billets in Singapore to meet the needs of the region.

Authority: Iron and Steel Survey Mission

Duration: June - December 1968

Estimated cost and

source of funds: The Government of Japan was wholly responsible for the salaries, travel costs and per diem of the Japanese experts and the Government of India for the Indian experts

IV.E.3

UNESOB/
UNIDO

Reports on industrial development in Saudi Arabia and Syria

The following two reports were prepared by the regional adviser in industrial development attached to UNESOB:

- A report, submitted to Petromin (Saudi Arabia), on the development of a method for project evaluation with an application to the illustrative case of the proposed steel billet-making project, Jeddah
- A report entitled "Comments and recommendations relating to the project of establishing a public agency for the design and engineering of industrial projects", submitted to the Ministry of Oil, Electricity and Industrial Project Execution, Syria.

In addition to the report submitted to Petromin, a one-week follow-up visit was paid to Riyadh by the regional adviser concerned, for the purpose of advising Petromin on implementation of some of the recommendations of the report.

Authority: General Assembly resolution 2152 (XXI); IDB resolution 5 (II)

Duration: 3 months, including visits to the field; 1968

Estimated cost and

source of funds: \$6,000 from UNDP

IV.E.4

UNIDO

Organization for implementation and follow-up at the sectoral and project levels

This study, completed in 1968, provides a guide for the design of an implementation and follow-up system which can be adapted at the project level to conditions prevailing in the developing countries.

Authority: IDB, 1968 (ID/B/20/Rev.1/Add.1, para. 189(a); ID/B/26, para. 216)

Duration: 1968-1971

Estimated cost and source of funds: \$1,500 from Consultant Funds

IV.F.5

UNIDO

Empirical investigations of the problems encountered in the implementation of industrial projects in developing countries

Preliminary research has been made in 1966 to establish the scope of a study to be undertaken in 1969 of the problems encountered in the implementation of industrial projects in developing countries. Emphasis will be placed on the problems of delays and prolonged gestation periods. A case study has also been made of the problems of industrial implementation encountered in Sudan, in particular, the implications of delays on the cost of the projects.

Authority: IDB, 1966 (ID/B/20 Rev.1, para. 177; ID/B/20/Rev.1/Add.1, para. 189(a and b))

Duration: 1967-1971

Estimated cost and

source of funds: \$6,850 from Consultant Funds

IV.E.6

(1967 CR: III.3)

UNIDO

Industrial project formulation and evaluation

Selected studies presented at the International Symposium on Industrial Project Evaluation held in Prague, Czechoslovakia, from 11 to 29 October 1965, were published in 1968 as Vol. I of the Industrial Planning and Programming Series entitled Evaluation of Industrial Projects (Sales No. E.67.II.B.23).

Volume II of this Series entitled "Glossary of Project Formulation and Evaluation" was completed in 1968 and has been submitted for publication in 1969. This Glossary is a short compendium of the terms and concepts used in project formulation and evaluation. Its major purpose is to eliminate the confusion caused by the introduction of numerous economic concepts in many different texts, often without concise definitions attached.

Work on Volume III in this Series, "The Economics of Project Formulation and Evaluation", is approaching its final stages. It is expected to be completed and ready for publication in 1969. The final chapters have been commissioned to consultants and will be ready for review and editing early in 1969.

The first section of Volume IV will present step-by-step procedures for the evaluation of industrial projects from the point of view of the above-mentioned national benefit costs methodology. It has already been commissioned to consultants. This work will fill the need for a step-by-step guidance in this important area of work.

Authority: IDB 1967 and 1968 (ID/B/4, para. 40; ID/B/20/Rev.1/Add.1, para. 189(a); ID/B/26, para. 213)

Duration: 1966-1971

Estimated cost and

source of funds: \$13,000 from Consultant funds

IV.E.7 UNIDO

Procedures for industrial project implementation programming, co-ordination and control in developing countries

These studies deal with the application of advanced techniques in the identification of project components and determine their sequential relationships, interactions, time durations, resources and costs, taking into consideration the scarcity of key resources and project completion data.

The preparation of these studies was initiated in 1968. Their purpose is to assist the developing countries in identifying and possibly eliminating the costly delays which occur when project implementation is improperly scheduled. It is planned to publish these studies in a series and to issue three subject parts in 1969.

Authority: IDB, 1967 and 1968 (ID/B/20/Rev.1, para. 177; ID/B/20/Rév.1/Add.1, para. 189 (a and b))

Duration: 1967-1969

Estimated cost and source of funds: \$5,000 from Consultant Funds

UNIDO The following field projects were developed during 1968

			Pro- gramme	Experts n/a	Cost \$
IV.E.8	Afghanistan	<u>Planning and co-ordination of industrial projects (153-63)</u>	TA	1/2	4,000
IV.E.9	Afghanistan	<u>Feasibility studies on the establishment of industries (14-33)</u>	TA	1/12	18,000
IV.E.10	Afghanistan	<u>Feasibility studies for specific industries (155-63)</u>	TA	2/6	10,100
IV.E.11	Algeria	<u>Project evaluation in connexion with the Economic Development Plan (10-582)</u>	REG	1/12	22,000
IV.E.12	Bolivia	<u>Building materials pre-investment survey (67-127)</u>	SIS	1/6	15,000
IV.E.13	Cambodia	<u>Inventories of available natural resources and utilization of production facilities (4-60)</u>	TA	1/6	11,000
IV.E.14	Cameroon	<u>Feasibility studies on projects for the Development Plan (10-340)</u>	REG	1/8	14,900
IV.E.15	Colombia	<u>Evaluation, selection and execution of industrial projects (135-57)</u>	TA	1/12	22,520
IV.E.16	Colombia	<u>Project evaluation and implementation (135-57)</u>	TA	1/4	7,100
IV.E.17	Dahomey	<u>Feasibility studies on projects in the Development Plan (177-65)</u>	TA	1/12	22,000

			Proj. gramm.	Experts	Cost \$
IV.E.18	Dahomey	<u>Industrial policy, project evaluation (10-868)</u>	REG	1/1	1,400
IV.E.19	Ethiopia	<u>Survey of the manufacturing industry (67-70)</u>	SIS	1/1	48,500
IV.E.20	Honduras	<u>Industrial planning and project evaluation (24-61)</u>	TA	1/12	22,000
IV.E.21	Honduras	<u>Formulation, evaluation and co-ordination of National Industrial Programme (24-61)</u>	TA	1/12	22,000
IV.E.22	Indonesia	<u>Preparation of pre-investment studies for state enterprises (43-57)</u>	TA	1/18	32,400
IV.E.23	Indonesia	<u>Industrial classification survey and programming data (43-57)</u>	TA	1/18	32,400
IV.E.24	Iran	<u>Decision-making system for industrial projects (68-359)</u>	SIS	2/20 days	1,800
IV.E.25	Iraq	<u>Preparing feasibility studies for various industries (168-39)</u>	TA	1/12	22,000
IV.E.26	Liberia	<u>Steel fellowship (67-79)</u>	SIG	1/8 (fellows)	3,600
IV.F.27	Madagascar	<u>Evaluation of industrial projects (5000-68)</u>	REG	1/6	11,400
IV.E.28	Malaysia	<u>Industrial marketing and feasibility studies (68-300)</u>	SIS	1/6	7,500
IV.E.29	Malaysia	<u>Economic research and project evaluation (318-67)</u>	TA	1/12	18,500
IV.E.30	Malaysia	<u>Feasibility studies of industrial projects (19-66)</u>	TA	1/6	28,050
IV.E.31	Mexico	<u>Evaluation of manufacturing projects (67-132)</u>	SIS	1/12	21,000
IV.E.32	Mexico	<u>Industrial planning (190-65)</u>	TA	1/6	11,000
IV.E.33	Nepal	<u>Evaluation of surveys in various industrial fields (83-65)</u>	TA	1/12	23,100
IV.E.34	Rwanda	<u>Industrial project formulation, evaluation and implementation (217-63)</u>	TA	1/12	22,000
IV.E.35	Somalia	<u>Project formulation, evaluation and implementation (10-777)</u>	REG	1/6	11,400

CHARTER

SMALL-SCALE INDUSTRY

A. Over-all policies and programmes for the promotion of small-scale industry

V.A.1
(1967 CR: IV.A.4,
IV.A.6)

ECA

West African Centre for Small-scale Industry

The West African Centre for Small-scale Industry in Niamey, established in 1966 and staffed by two ECA officials, continued to render technical advice in 1968 to the countries of the Western subregion. Feasibility studies were prepared on various projects, particularly in Togo and Niger.

A draft request to UNDP/SF for assistance to this Centre was prepared in co-operation with UNIDO and was expected to be co-sponsored by individual countries by the end of 1968.

The offer of two power-looms and the services of a technician for their installation and operation, for purposes of demonstration at Lomé (Togo), were received from India. This offer was accepted and implemented in 1968.

The offer of the Indian Government of the services of experts in knitwear and enamel-ware, on bilateral terms, has been accepted and the experts are expected shortly at Niamey to work under the direction of the Niamey Centre.

An official of ECA has been sent to India for training on bilateral terms for three months.

Duration: 1968 - continuing

V.A.2

ECA

Establishment of a small-scale industry advisory centre in the East African subregion

At the request of ECA, the services of a bilateral expert from the Federal Republic of Germany have been obtained for making recommendations on the establishment of a small-scale industry advisory centre in the East African subregion. This project is in conformity with ECA Res. L.114 (E/C.18.114).

Duration: 1968

V.A.3
(1967-68: 1, 2, 3, 4)

ILO
1968
1969

Latin-American Centre for Small-Scale Industry

work has been done by, in collaboration with UNCTAD, in the preparation, for submission to UNDP, of a proposal for the establishment of a regional centre for small-scale industry. ILO also participated actively in the work. As a result of this project, the Centre will be recommended for the establishment of contacts between the various countries of the region, as well as between these outside Latin America, with a view to making more effective use of the available resources, information and experience. Consideration is also being given to the development of the Centre as a co-ordinating element in the compilation of data and in the dissemination of the results of the activities related to small-scale industry in the various countries. The Centre will operate as a regional body open to all Latin American countries, and will have four basic interrelated functions: investigation, an information service and a publications programme, technical co-operation, and vocational training.

Authority: ECLA resolutions 116, 127 and 137 (VII)

Duration: Continuing

Estimated cost and source of funds: 1968 - 2 man-months from ECLA resources

V.A.4

FAO

Development of small-scale agricultural products processing industries

Duration: 1967-1968

Estimated cost and source of funds: \$7,200 from UNDP/TA allocation (see also V.A.14(b))

V.A.5

ILO

Handicrafts and village industries in development plans

The aim of this study is to examine the reasons for the failure or success of measures taken for the development of handicrafts and the expansion of other village industries in developing countries. This research activity forms a part of ILO's contribution towards the industrialization of rural areas and the promotion of economic welfare and employment in the developing countries of North Africa and Asia. The first draft of the paper was produced in August 1968.

Duration: June 1968 - continuing

Estimated cost and source of funds: 1½ man-months from ILO regular budget

V.A.6
1967 CR: IV.A.1

ILO

Industrial Development - International - International Seminar for Field Staff

To facilitate the exchange of views between ILO experts and to provide guidelines and appropriate areas of action for the promotion of the small-scale industry sector, a number of papers had been prepared on a variety of technical subjects. The subjects included: fine training for artists; industrial technological modernization of the pottery industry in an African country (prepared as a case study) and a choice of technology for handicraft development. Action had also been taken to design new model projects for small enterprise production.

Duration: 1968

V.A.7

ILO

Interregional Meeting of Experts on the Role of Handicrafts in the Developing Countries

The purpose of this Meeting, held in New Delhi, India, was to review the progress of national handicraft programmes, including government policies, co-operative organization of handicraft workers and handicraft undertakings, technological modernization of the sector as well as special problems of developing production and promoting export marketing of artistic crafts goods. Furthermore, the Meeting suggested to ILO the methodology it should follow in furthering the aims and objectives of its handicrafts programme in the developing countries.

Experts from the following countries participated in this Meeting: China, France, Dahomey, Ecuador, India, Iran, Israel, Japan, Malaysia, Mexico, Morocco, Poland, Senegal, Thailand and the United Republic of Tanzania.

Duration: 4-16 November 1968

Estimated cost and source of funds: \$22,100 from ILO regular budget

V.A.8
(1967 CR: IV.B.1)

ILO

Latin America - Research study on obstacles to entrepreneurial entry

The work programme for 1968-1969 of the Small-scale Industry Section includes a research item on industrialization of small-scale industries. This programme, to be extended into 1970-1971, emphasizes research in the nature of small enterprises and in the characteristics of small entrepreneurs. These studies are designed on a global scale.

The purpose of these studies is to provide logistic support to technical branches carrying out or planning to carry out programmes of interest to personnel of small enterprises in developing countries. In particular, the objectives are to determine what factors are inhibiting or even preventing enterprising individuals from establishing and developing small enterprises and what action the public authorities can take to reduce or eliminate such

V.A.8
(cont'd)

ILO

restrictions in general on employment creation in the rural sector. To this end, field research is to be undertaken, starting with a three-month mission in two selected Latin American countries (Peru and Chile).

Duration: The study was completed in 1966.

Estimated cost and

source of funds: \$4,050 from ILO regular budget

V.A.9

ILO

African regional adviser on small enterprise promotion

In accordance with ILO policy for the decentralization of activities in this field, an expert was appointed in the African region. His task has been to provide advisory services to Governments for the development of programmes for the promotion of handicrafts and small-scale industries at the national level, following the basic aims and objectives of ILO in the field of social and economic development. These activities, carried out under the Human Resources Programme of the Office, are intended to create employment in the rural and urban sectors, to raise the national output and to improve social and economic conditions of workers and owners engaged in handicrafts and small enterprises.

Duration: 1967 - continuing

Estimated cost and

source of funds: \$22,176 from ILO regular budget

V.A.10

ILO

Asian regional adviser on small enterprise promotion

In accordance with ILO policy for the decentralization of technical co-operation activities in this field, an expert was appointed in the Asian region. His tasks have been to provide advisory services to Governments for the development of programmes for the promotion of handicrafts and small-scale industries at the national level, following the basic aims and objectives of ILO in the field of social and economic development.

These activities, carried out under the Human Resources Programme of the Office, are intended to create employment in the rural and urban sectors, to raise the national output and to improve social and economic conditions of workers and owners engaged in handicrafts and small enterprises.

As to the methods of implementation, country visits are carried out and short seminars are organized by the regional adviser in which government officials concerned with the promotion of handicrafts and small-scale enterprises participate. The schedules of the country visits and seminars are established and agreed to by the regional co-ordinator of ILO for Asia.

Duration: 1968 - continuing

Estimated cost and

source of funds: \$25,000 from ILO regular budget

10/1/70
10-10

V.A.

10

Middle East regional adviser on small enterprise promotion

A regional adviser on small enterprise promotion was appointed, who has worked in the region as described in the regional job description for the Middle East and the Middle East region.

Authority: UN/DAEP

Source of funds: UN regular budget

V.A.12

11a

Middle East regional adviser on small enterprise promotion

In accordance with the policy for the decentralization of activities in this field, an expert was appointed for the Middle East region. His task has been to provide advisory services to the Government for the development of programmes for the promotion of handicrafts and small-scale enterprises at the national level, following the basic aims and objectives of UNO in the field of social and economic development. These activities, carried out under the Human Resources Programme of the Office, are intended to create employment in the rural and urban sectors, to raise the national output and to improve social and economic conditions of workers and owners in handicrafts and small enterprises.

As methods of implementation of these tasks, country visits are carried out and short seminars are conducted in which government officials concerned with the promotion of handicrafts and small-scale industries participate. The schedules of the country visits and seminars are established and agreed to by the directors of the area offices in the region.

Duration: 1968-1971

Estimated cost and

source of funds: \$25,368 from UNDP/TA

V.A.13
(1966
CR/Corr.1:IV.A.37)
(1967 CR: IV.A.30)

UNESOB/
UNIDO

Study on small-scale industries in selected countries in the Middle East

This study has been undertaken with the help of a consultant and submitted as a working paper to the Expert Group Meeting on the Development of Small-scale Industries in Arab Countries of the Middle East held at UNESOB from 11 to 16 November 1968.

Authority: General Assembly resolution 2152 (XXI); IDB resolutions 4 (II) and 6 (II)

Duration: 4 months; 1968

Estimated cost and

source of funds: \$1,500 from UNESOB regular budget
\$2,500 from UNIDO Consultant Funds

11.E.17
(1967-68: 11,134)

ILO

Management development and personnel policies and practices

The Sixth ILO African regional conference, held in Accra from 7 to 14 September 1966, considered the question of management development and personnel policies and practices and adopted a resolution concerning this subject.

Duration: 7-14 September 1966

11.E.17

ILO

Ethiopia - Minimum wage fixing

The purpose of this project is to study the situation, advise and assist the Government in preparing and finalizing texts of legislation and regulations on minimum wages, organize relevant administrative organs and conduct seminars and study groups for their personnel.

Duration: 18 months

Estimated cost and source of funds: \$28,855 from UNDP/TA for 1967-1968

11.E.18

ILO

Guinea - Determination and structure of wages

The purpose of this technical co-operation project is to study the situation and help to work out a longer duration project in the field of wages according to the terms of the government request.

Duration: 3 months

Estimated cost and source of funds: \$5,544 from ILO 1967-1968 regular programme

11.E.19

ILO

Iraq - Wage structure and minimum wage fixing

The purpose of this technical co-operation project was to analyse the levels, the methods of determination and the structure of wages including fringe benefits in private industries; to advise the Government on the machinery for minimum wage fixing; to organize seminars or training courses for those responsible for questions of remuneration and to ensure the dissemination and improvement of methods of job evaluation already employed.

Duration: 1 year; 1968

Estimated cost and source of funds: \$24,000 from ILO 1967-1968 regular programme

1968 (CR: IV.A.1)

UNIDO
1968

Expert Group Meeting on the Development of Small-Scale Industries
in Arab Countries of the Middle East

This Meeting, organized by UNIDO and UNCTAD, was held in Geneva from 11 to 15 November 1968. It was attended by representatives from five countries and by staff members of UNIDO, UNCTAD, UNCTAD and by five consultants and experts. It examined twenty-four papers and seven background papers prepared by UNCTAD, UNIDO and by the consultants, and five country papers submitted by participants. The agenda included a review of policies, programmes, institutions and facilities for the development of small-scale industries; the future of the traditional sector in a modernizing economy; promotion of entrepreneurship; technical services for small-scale industries; financing of small-scale industry; and regional and international co-operation for the development of small-scale industries. The report of the Expert Group and some of the papers prepared for the Meeting will be published in 1969.

Authority: General Assembly resolutions 2152 (XXI) and 2178 (XXI); IDB resolution 1 (1); IDB, 1968 (ID/B.20/Rev.1/Add.1 para. 17(a))

Duration: 11-15 November 1968.

Estimated cost and

source of funds: \$4,000 from UNIDO regular budget and 2 man-months for the Expert Group

Documentation for the Expert Group Meeting: The following papers dealing with the more general aspects of the promotion of small-scale industry in the participating countries were prepared especially for the Meeting:

- (a) A comparative analysis of small-scale industries in Arab countries of the Middle East and in selected other countries, by UNIDO (ID/WG.17/3)

Cost: 1 man-month

- (b) The future of rural industries in a modernizing economy, by FAO (ID/WG.17/4)

- (c) The future of the traditional sector in an industrializing economy, by UNIDO (ID/WG.17/5) (1967 CR: IV.A.32)

Cost: 1 man-month

- (d) Fostering the development of small-scale industries through a multi-national centre for industrial development, by UNISUI (ID/WG.17/16) (This study is expected to be followed up in 1969)

- (e) Small-scale industry and the Arab Common Market, by consultant (ID/WG.17/17)

V.A.15

UNIDO

Meetings on subcontracting between large and small industries

Preparations, including the writing of reports, were made for the organization of two meetings on subcontracting in 1969. One, of global scope, will be organized by UNIDO in close co-operation with OECD and with the participation of ECAFE; the other, of regional scope, will be organized by ECAFE in co-operation with UNIDO.

Authority: IDB, 1968 (ID/B/26, para. 198)

Duration: July-December 1968

Estimated cost: 3 man-months

V.A.16

UNIDO

The subcontracting exchange

A study on the subcontracting exchange was prepared in 1968 for the meetings on subcontracting to be held in 1969. The study contains an analysis of the subcontracting exchanges as instruments for the promotion of ancillary small-scale industries and an account of the problems encountered in their establishment and operation, on the basis of experience in the United Kingdom and some other European countries.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 172(b))

Duration: October-November 1968

Estimated cost and

source of funds: \$1,500 from UNIDO Consultant Funds

V.A.17

UNIDO

Questionnaire on subcontracting

A questionnaire on subcontracting was prepared in 1968 and was sent to industries, Governments and experts in developing countries. The replies will be analysed in a report to be prepared for the UNIDO and ECAFE meetings on subcontracting to be held in 1969, and will be taken into account in mapping out a programme to promote subcontracting, to be undertaken in 1970.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 172(b))

Duration: October 1968

Estimated cost: 1 man-month

V.A.16

UNIDO

Small-scale industries in centrally planned economies

A study of small-scale industries in Poland was prepared in 1968. The study analyses the role, structure and importance of small-scale industry in Poland and the policies, facilities and measures adopted for its promotion. It also contains conclusions and recommendations applicable to developing countries.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 172(c))

Duration: August-September 1968

Estimated cost and source of funds: \$2,000 from UNIDO Consultant Funds

V.A.19

UNIDO

Monograph on small-scale industry

A monograph on small-scale industry was prepared in 1968 for inclusion in the proceedings of the International Symposium on Industrial Development held in Athens in 1967.

Authority: ECOSOC resolution 1081 B (XXIX)

Duration: October-November 1968

Estimated cost and source of funds: \$3,500 from special Consultant Funds

V.A.20

UNIDO

Regional and subregional centres for small-scale industry

UNIDO co-operated with ECA, ECLA and UNESOB in drafting requests to UNDP/SF for assistance in establishing centres for small-scale industry for the West African subregion, Latin America and the Arab countries of the Middle East (see V.A.1, V.A.3 and V.A.14(d)).

Authority: 1968 Work Programmes of ECA, ECLA, UNESOB and UNIDO

Duration: August-September 1968

Estimated cost: 3 man-months

V.A.21

UNIDO

Direct advisory services to Governments

Direct advisory services were provided by staff members and a technical adviser of UNIDO to Governments in a number of countries. A request to UNDP/SF for assistance in setting up a small and medium-scale industry development and service centre in Feira de Santana, State of Bahia, Brazil, drafted by a technical adviser, was officially submitted to UNDP by the Government of Brazil. A request made by the Government of Iran to UNDP/SF for assistance in developing small-scale industries was revised by UNIDO technical advisers with a view to enlarging its scope and merging it with the UNDP/SF industrial estate project in Ahwaz. Missions were carried out to Cameroon, Congo (Brazzaville), Congo (Democratic Republic of), Dahomey, Ghana, the Ivory Coast, Niger, Senegal, Togo and Tunisia. In several of these countries, technical

...small-scale industry...
 ...with...
 ...industrial...
 ...

Nationality: Government-owned; ID, 100% American, 0% P-1

Duration: July-7 to 1965

Estimated cost:

Source of funds: Government, State and local budgets

...following table... selection

			<u>Inv-</u> <u>month</u>	<u>Exports</u> <u>month</u>	<u>Cost</u> <u>\$</u>
V.A.27	Canada	<u>Development of small-scale industries (50-52)</u>	TA	1/12	22,000
V.A.28	Central Africa Republic	<u>Development of light and small-scale industry (10-000)</u>	REG	1/7	18,300
V.A.29	Cameroon (Brazzaville)	<u>Development of small-scale industry (10-000)</u>	REG	1/4 1/2 (1/2 1/2 follows)	11,400
V.A.30	Cameroon (Douala, et)	<u>Development of small-scale industry (10-1000)</u>	REG	1/12	22,000
V.A.31	Dominican Republic	<u>Development of small and medium-scale industries (14-00)</u>	TA	1/12	21,000
V.A.32	Guatemala	<u>Development of small-scale industries (50-71)</u>	SIS	1/7	18,000
V.A.33	India	<u>Development of small and medium-scale industries (10-036)</u>	REG	1/8	15,200
V.A.34	Korea (Seoul)	<u>Location of small-scale industry (50-07)</u>	TA	1/12	22,000
V.A.35	Lebanon	<u>Development of small-scale industry (60-01)</u>	TA	1/6	11,000
V.A.36	Lebanon	<u>Development of small-scale industry (60-20)</u>	SIS	1/6	11,000
V.A.37	Malaysia	<u>Setting up a hardware factory (1-00)</u>	TA	1/12	21,000
V.A.38	Paraguay	<u>Development of small-scale industries (10-305)</u>	SIS	1/3	6,200
V.A.39	Peru	<u>Development of small-scale industries (10-02)</u>	REG	1/3	5,700
V.A.40	United Arab Emirates	<u>Development of small-scale industries (100-00)</u>	TA	1/11	20,000

V.A.35	Kenya	<u>Development of small-scale industries (1-4)</u>		
V.A.36	Seychelles	<u>Development of small-scale industries (10-50)</u>		
V.A.38	Senegal	<u>Formulation and implementation of development policy for small industries (1-5)</u>		
V.A.39	Sudan	<u>Transfer of technical facilities and stimulation of new small-scale industries (6-10)</u>	11	14,000
V.A.40	Tanzania	<u>Small-scale industries and handicraft marketing (15-20)</u>	11	14,000
V.A.41	Trinidad and Tobago	<u>Development of small-scale industries (10-60)</u>	10	14,000
V.A.42	Uganda	<u>Development of small-scale industries (44-65)</u>	1A	14,200
V.A.43	Zambia	<u>Establishment of industries in rural areas (67-156)</u>	SIS	14,000

B. Industrial extension services, training and demonstration

V.B.1 * ECA West African Centre for Small-scale Industry
(1967 CR: IV.A.4, IV.A.6) (For description, see chapter V.A.1)

V.B.2 ECA Small-scale industries exhibition

The small-scale industries expert made available to ECA by the Government of India, joined the secretariat in May 1968. Among other things he is serving as secretary to the committee organizing a small-scale industries exhibition to be held during the ninth session of ECA (3-14 February 1969).

Duration: 1968 continuing

V.8.4
(1967 CR: IV.A.16)

ECAF

Publication of the Small Industry Bulletin for Asia and the Far East

The bulletin is published annually to promote the interchange of information on current technological advances in management, machinery and equipment, product design, standardization and quality control, production and marketing techniques, training methods, and other matters connected with the development and modernization of small industries.

The secretariat prepares the general layout plan and outline, together with an explanatory note on the outline, and sends these to the technical correspondents of the Small Industry Bulletin requesting contributions of articles and supply of data and information. The contributions are then edited by the secretariat and the Bulletin is printed.

Issue V of the Bulletin was published and circulated in 1968; its major theme was on technical services and facilities for the promotion and modernization of small-scale industries. Issue VI is being published, having as its main theme "Training and development of personnel for small industries with special reference to managers, technicians and operatives".

Authority: Working Party on Small-scale Industries; Committee on Industry and Natural Resources; ECAFE

Duration: 1963 - continuing

Source of funds: ECAFE regular budget

V.B.4
(1967 CR: IV.A.16)

ILO

Chile - Department of Small Industries

The purpose of this project is to assist the Government to strengthen and expand the services of the Technical Co-operation Service (SCT) to small-scale industries in Chile. Under this project, ILO provides experts in marketing, industrial economics, consultancy on industrial estates, co-operatives and technical experts in the wood, leather and metal trades. An industrial estates expert is provided by UNIDO. The Ministry of Industry and Commerce acts as co-operating government agency.

Authority: Government request

Decision: 12 July 1967 - 11 July 1972

Estimated cost and

source of funds: \$925,800 UNDP/SF
\$4,567,231 Gov't contribution

V.B.6
(1967 CR: IV.A.17)

Israel - Small Industry Development Fund

The purpose of this project is to assist the Government in establishing and developing a Small Industry Development Fund to promote the development, modernization and growth of existing activities, small and medium-scale industries, technical studies, and training and extension services for entrepreneurs and other small and medium-scale entrepreneurs.

Whilst the Service in its early stages will be almost wholly concerned with existing small-scale enterprises, the information it will gather for the Government will probably affect activities in the areas of manpower planning and worker's training at all levels. Attention may be given at a later stage of the Service to larger enterprises if there is a need to do so.

Authority: Government request

Duration: 5 years; 1968 - continuing

Estimated cost and source of funds:

\$924,200 UNDP/SF allocation consisting of (\$831,900 UNDP/SF contribution and \$92,300 Gov't contribution)
\$885,433 Gov't counterpart contribution

V.B.6
(1967 CR: IV.A.17)

110

Israel - Small Industry Advisory Service, Iel Aviv

The purpose of the project is to assist the Government in the establishment and initial operation of a Small Industry Advisory Service. The activities of the project, covering the whole country, are concerned with demonstration and training, consulting and advisory services, and technical investigation services.

In particular, the activities of the project are carried out through appreciation, familiarization and skill up-grading courses for managers, supervisors and foremen of small-scale industrial plants, through consulting and manufacturing operations, raising productivity, improving quality of products, and creating better working conditions for the engaged labour force. Technical investigations of problems which limit the development of small industry and suggestions on ways and means of overcoming such problems form also part of the project.

Authority: Government request

Duration: May 1966 - February 1970

Estimated cost and source of funds:

\$518,093 UNDP/SF allocation
\$761,450 Gov't counterpart contribution
\$1,279,543 Total



16.7.74

- 11.E.20 ILO Syria - Wage determination
The purpose of this technical co-operation project is to study wage structures as well as fringe benefits in public, nationalized and private industries; to study the prevailing system and method of fixing wages and fringe benefits in the same three industries, including problems posed by the process of industrial consultation and collective bargaining; to help relevant authorities in the improvement and promotion of methods of minimum wage fixing in the various industries in accordance with the technological evolution and with the economic and social developments.
Duration: 6 months
Estimated cost and source of funds: \$11,088 from ILO 1967-1968 regular programme
- 11.E.21 ILO Syria - Minimum wage fixing machinery
The purpose of this technical co-operation project is to provide a scholarship to a Syrian national to study the minimum wage fixing machinery in the private sector in Canada.
Duration: 6 months
Estimated cost and source of funds: \$2,430 from ILO 1967-1968 regular programme
- 11.E.22 ILO Wage planning in socialist countries with regard to developing countries
This research project forms a part of the approved ILO programme of economic research for the industrial development of developing countries. The aim is to assess socialist experience of the effects on economic growth of different types of incentive systems and to consider whether any of this experience could be applied or adapted to developing countries. This study, which began in 1968 and is expected to be completed in 1969, will be based on wage planning in Eastern Europe since 1950.
Duration: Date of completion 1969
Estimated cost and source of funds: 1968 - 6 man-months from ILO regular budget

F. regional development policies

11.F.1

ECA

Studies on East and West African economic integration

ECA is undertaking jointly with the Centre for Development Planning, Projections and Policies (CDPPP), a study on West African economic integration. This study is being carried out on behalf of the Government of Nigeria in accordance with the recommendations of the Conference of Heads of States and Governments of West Africa, held in Monrovia from 17 to 21 April 1968.

In accordance with the decisions taken by Heads of States of East and Central African countries at Kampala in December 1967 and at Dar-es-Salaam in May 1968, ECA and CDPPP are also carrying out a study of economic integration in the East African subregion.

The purpose of these studies is to formulate a five to ten-year co-ordinated programme for action in the above-mentioned subregions. These programmes are expected to serve a dual purpose: the promotion of subregional economic co-operation and the preparation of the UN Second Development Decade.

Duration: 1968 - continuing

11.F.2

ECA

Studies on regional development

In accordance with ECA resolution 153 (VIII) and with the assistance of bilateral consultants and UN specialized agencies, a number of individual preliminary sectoral studies, some of them initiated in 1967, were undertaken in 1968 for North and Central Africa. Like those already prepared for East and West Africa, these studies are intended to identify industrial possibilities for development on multinational and subregional levels. The immediate use of these exercises is to formulate a co-ordinated subregional approach to industrial development.

Because of the developments in the Middle East and the longer time taken in securing some bilateral experts, submission of sectoral studies on North Africa was inevitably delayed. This delay had repercussions on the original time-table of the sectoral studies on Central Africa as well.

The task of harmonizing the North African studies, i.e. the preparation of an inter-industry balance, has been entrusted to Professor H.C. Bos of the Netherlands Economic Institute in Rotterdam. Professor J.L. Lacroix of Lovanium University, Kinshasa, will harmonize the Central African studies. The resulting subregional pictures of balanced industrial development are expected by the middle of 1969.

Duration: Continuing

II.F.3
(1967 CR: II.D.10)

ECA

Industrial development in West Africa: An integrated analysis

This work was endorsed by ECA resolution 153 (VIII) and by the Programme of Work and Priorities for the Biennium 1967-1968.

The aim of the project is to prepare studies that would show inter-industry relationships and linkages, together with a picture of the prospective inter-industry balance for Africa, on both a subregional and regional level.

Duration: Continuing

II.F.4
(1967 CR: II.D.9)

ECA

Inter-industry balance studies for North and Central Africa

In 1968, about 50 industry sector studies were undertaken or revised for North and Central Africa. This work was initiated in pursuance of ECA resolution 153 (VIII) and of the Programme of Work and Priorities for 1967-1968.

Duration: Date of completion 1969

II.F.5

ECA

Revision of the East African harmonization study

A continental harmonization study has been undertaken to show inter-industry relationships of the countries of the African continent and the prospective inter-industry balance for Africa on a subregional and regional basis. The East African harmonization study has been revised as a part of this study. *

Duration: Date of completion 1969

II.F.6

ECAFE

Electric power development and planning

The purpose of this project is to promote the development of electric power and planning. It entails the development of the following activities:

- (a) Assistance to Governments: To provide, on request, advisory assistance to Governments on all aspects of electric power development including the promotion of regional co-operation such as
 - International exchange of electric power
 - Exploration of the possibilities of establishing a regional power station, based on conventional or nuclear resources and combined with the production of desalinated water
 - Design, construction and operation of extra high voltage AC - 500 kV and DC - 750 kV transmission lines
 - Accelerated development of rural electrification

- Training facilities in the operation and maintenance of large complex steam thermal power plants with sophisticated control and instrumentation systems
- Establishment of power system managerial organizations and the training of various levels of managers and operatives
- Control and operation of interconnected and integrated power systems with specific reference to load dispatch techniques
- Application of computer technology to the solution of power system engineering problems

(b) Conferences, regular meetings, regional seminars and expert working groups:

- Nuclear task force - To organize, with assistance from UNDP (OTC) and with the collaboration of IAEA, a task force to conduct surveys on all aspects and applications of nuclear power and to study the possibilities of developing agriculture and industries built around a nuclear energy centre
- Seminars and study tours - To organize, on request of the countries and subject to the offer of host facilities and availability of resources a seminar on thermal power station practices; a seminar on nuclear power development and its application including a study tour to the United Kingdom and other developed countries such as the United States; and a seminar on rural electrification in one of the Asian Republics of the USSR in 1970-1971
- Roving seminars - To organize, subject to the request of Member States and the availability of resources, roving seminars on subjects of interest to the countries. The following items might form the subjects of such seminars: improvement of productivity in the electric power industry; specific operational and maintenance problems in any aspect of power systems; organization and management including accounting practices

in connexion with nuclear power, it is proposed to convene, in collaboration with IAEA, a seminar on planning for power development. (A briefing seminar on nuclear power, jointly organized by ECAFE and IAEA, was held at the conclusion of the eleventh session of the Sub-Committee on Energy Resources and Electric Power, in Singapore in June 1968.)

Authority: Sub-Committee on Energy Resources and Electric Power; Committee on Industry and Natural Resources; ECAFE

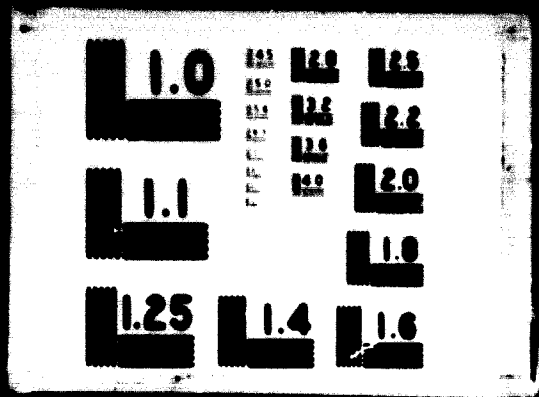
Duration: Assistance to Governments will continue as desired. Nuclear task force, study tours and roving seminars may be undertaken in 1969 through 1971 as and when the funds from UNDP (OTC) become available.

Estimated cost and source of funds: 1968 - 36 man-months from ECAFE regular budget and funds from UNDP (OTC)

3 OF 10

D O

4 1 2 5



Panama - Industrial Training Project

The purpose of the project is to assist the Government in the establishment and initial operation of a National Service for Crafts and Small-scale Industries (SENAPI) to promote development and growth of light industries through the provision of training, demonstration and extension services. These facilities will be made available to private entrepreneurs and small undertakings in government-sponsored industrial estates, engaged in manufacturing, processing and servicing (installation, maintenance and repair) activities.

Authority: Government request

Duration: December 1966 - November 1970

Estimated cost and

source of funds: \$656,700 UNDP/SF contribution
\$2,061,164 Gov't contribution

V.B.8
(1967 CR: IV.A.19)

ILO

Panama - National Service for Crafts and Small-scale Industries (SENAPI)

The purpose of the project is to assist the Government in the establishment and initial operation of SENAPI, within the general framework of development for the promotion, encouragement, improvement, creation and diversification of activities and of the production of crafts and small industries.

SENAPI provides experts in artisan industries, e.g. tanning, leatherwork, woodwork, vegetable fibres, food processing and ceramics, and general experts in industrial engineering, finance, marketing and design to operate in the central provinces of Panama.

Authority: Government request

Duration: 25 October 1966 - 24 October 1970

Estimated cost and

source of funds: \$809,200 UNDP/SF contribution
\$903,540 Gov't contribution

V.B.9
(1967 CR: IV.A.21)

ILO

Singapore - Light Industries Service Unit

The purpose of the project is to assist the Government in the establishment and initial operation of a Light Industries Service Unit to promote development and growth of light industries through the provision of training, demonstration and extension services. These facilities will be made available to private entrepreneurs and small undertakings in government-sponsored industrial estates, engaged in manufacturing, processing and servicing (installation, maintenance and repair) activities.

V.I.1

UNIDO

Participated in a training programme with the aim of developing many joint production programmes between small-scale enterprises in the case study area or elsewhere in the Caribbean, the United Kingdom and of critical technical training in developing countries.

Authority: IDP, 1968 (Final Review, para 1.10)

Duration: October - December 1968

Estimated cost and

source of funds: \$5,000 from Consultant funds

UNIDO

The following field projects were developed during 1968

			Pre- programme	Experts m/m	Cost \$
V.I.1	Jamaica	<u>Design and production of handicrafts (67-153)</u>	SIS	1/12	18,000
V.E.3	Jamaica	<u>Furniture production methods and techniques (68-756)</u>	SIS	1/12	19,700

E. Common service facilities, co-operatives and other promotional measures

V.F.1

ILO

Interregional Meeting of Experts on Inter-firm Co-operation for Small-scale Manufacturing Enterprises

The meeting is scheduled for the latter part of 1969. It will be carried out jointly by the Small-scale Industries Section and the Co-operative, Rural and Related Industries Branch, and in co-operation with other interested technical units of ILO. It has been proposed to invite the participation of UNIDO.

Duration: Preparation 1968; Meeting to be held in 1969

Source of funds: UNDP/TA, final decisions pending

V.F.2

ILO

Jamaica - Industrial co-operatives

One expert on industrial co-operatives was assigned to UNDP/SF project for the National Institute of Productivity and Industrial Development.

Duration: 1968

Source of funds: UNDP/SF

(1967 CR: IV.F.1)

11

India - Co-operative centres of rural handicrafts

The project continued in similar lines as in 1966. Although the number of experts was gradually reduced to two in 1967. The Government has expressed keen interest for continuation of the project along somewhat new lines to be worked out by them and the local authorities.

Duration: Continuing

V.F.4

110

Nigeria - Co-operatives

At the request of the Government an expert has been posted in Lagos to assist the Government in the organization of small industry and handicraft workers' co-operatives. The expert will particularly endeavour to improve the situation of artisans who are engaged in maintenance and repairs of automobiles, radios, television sets and so on. He will also advise on marketing of artisans' products. The project is presently planned for twelve months; the Government has already indicated interest in further extension in 1969.

Duration: 1968-1969

V.F.5

110

Panama - Co-operatives

An expert on industrial co-operatives was attached to a UNDP/SF project (National Service for Crafts and Small Industries) for twelve months in 1967/1968.

Duration: 1967 - August 1968

V.F.6
(1967 CR: IV.F.3)

110

Saudi Arabia - Co-operatives

The Government requested the extension of this project until August 1968. The expert continued to advise co-operatives of all types, including industrial co-operatives, on their activities. The Vocational Training Society and the two electricity supply co-operatives in Taraba and Medina continued to operate successfully. Efforts to train managers and members were continued to the end of the mission.

Duration: Date of completion August 1968

V.F. 7
(1967 CR: IV.F.7)

Tunisia - Building Industry

An expert was assigned to Tunisia in 1968 to assist the government in its efforts to promote workers' productivity co-operatives, particularly in the building industry. The expert helped to consolidate the position of existing co-operatives and advised on all aspects related to their operations. He recommended that a union of workers' productive co-operatives be established.

Duration: 6 months; 1968

V.F. 8

ILO

Tunisia - Centre for Co-operative Development

This project is in the first stage of implementation. The Centre will, besides other activities, play an active role in the education and training of staff of all types of co-operatives in the country, including workers' productive co-operatives.

Duration: 1968 - continuing

Source of funds: UNCP/SF

V.F. 9
(1967 CR: IV.E.3)

UNIDO

The tool room

A study of the tool room as a common service facility for small-scale industries was completed in 1968. It will be published in 1969 as the first in a series of publications on common service facilities.

Authority: IOB, 1968 (ID/B/20/Rev.1, para. 172)

Duration: Second half of 1968

Estimated cost: 3 man-months

UNIDO

The following field project was developed during 1968

V.F. 10

Kenya

Setting up a workshop in the industrial estate of Nairobi (67-123)

<u>Programme</u>	<u>Experts</u> <u>n/a</u>	<u>Cost</u> <u>\$</u>
SIS	1/12	24,000

CHAPTER VI

INDUSTRIAL TRAINING

A. Manpower planning and related studies

VI.A.1

ECA

Survey on manpower in the field of energy

In co-operation with appropriate UN and bilateral agencies, ECA is planning to undertake a survey on manpower in the field of energy to estimate manpower requirements and availability at the high and intermediate levels in relation to energy development in African countries and to evaluate existing training facilities.

Duration: 1968

VI.A.2

ECA

Report on a reconnaissance survey of education, training, manpower, resources and needs for the mineral industry and geoscience in fifteen African countries

ECA, in collaboration with UNESCO and with assistance from the United States, completed a report in 1968 on a reconnaissance survey of education, training, manpower, resources and needs for the mineral industry and geoscience in fifteen African countries. This survey was carried out in 1967.

Duration: 1967-1968

VI.A.3

ECA

Study on the identification and assessment of middle and high-level manpower and training requirements in Africa

ECA initiated a study on the above subject in 1968. This study established the skilled manpower needs, by type and category, for the implementation of industrial projects in West and East Africa. The study was related to the employment components of various sub-regional industrial project proposals elaborated in the relevant ECA studies on the two subregions concerned. The critical manpower and training problems in African countries were also identified. The study was prepared as a working document for the second session of the ECA Working Party on Manpower and Training held in October 1968.

Duration: 1968

VI.A.4

ECA

Inter-agency survey on manpower in the field of agriculture

ECA is preparing a survey on the requirements and availability of various categories of personnel and training facilities in the West African Sahelian and in states in the Central African outland. This survey will identify gaps and deficiencies in the existing manpower situation and training facilities and make recommendations for alleviating these problems. The USAID is assisting in the implementation of the project (Work Programme item 34).

Duration: 1968

VI.A.5

ECA

Regional Meeting on Youth Employment and National Development

ECA sponsored a Regional Meeting on Youth Employment and National Development in Niamey, Niger from 21 to 30 May 1968 to formulate concrete recommendations, to indicate means of implementing programmes designed to combat unemployment and under-employment of youth in rural and urban areas, and to promote and improve general youth training programmes. ILO, FAO, UNESCO and UNICEF participated. Twelve Governments as well as two non-government organizations and two member organs of the Organization of Employers' Federation sent their representatives.

Duration: 21-30 May 1968

VI.A.6

ECA

Working Party on Manpower and Training

ECA organized the second session of the Working Party on Manpower and Training in Addis Ababa from 28 October through 1 November 1968. It considered Africa's manpower situation, particularly the shortage of national trained manpower, and made specific proposals for eliminating this shortage and reviewed action taken or planned by the secretariat in the field of human resources development. Among the working documents which ECA prepared for this meeting were:

- "Trained manpower requirements for industrialization programmes in East and West Africa"
- "Africa's economic transformation and implications for educational and manpower development"
- "Identified manpower and training problems in African countries (Status Report)"
- "Programme proposals for meeting Africa's requirements of critical manpower for development"
- "Draft work programme for 1969-1973"

Authority: ECA resolution 128 (VII)

Duration: 28 October - 1 November 1968

VI.A.11

ILO

Subject to ILO in the field of rural development

A study of the targets and an evaluation of approaches to the rural development programmes of the ILO in such a way as to define the role of the ILO within the scope of concerted international activities were proposed by the Permanent Agricultural Committee. The study is concerned particularly with employment promotion in the rural areas of the developing countries and a substantial part of the research will be directly related to rural industrialization. Some research began in 1968 for the preparation of a report on practical methods of promoting non-agricultural rural employment.

Duration: 1968 - continuing

Estimated cost and

source of funds: 1968 - 6 man-months from ILO regular budget

VI.A.13

ILO

The brain drain

Work on two studies began in July 1967; one "The brain drain from developing countries" was completed in July 1968; the other, entitled "The migration of high-level manpower from Latin America" will soon be completed.

Duration: July 1968 - continuing

Estimated cost and

source of funds: 3 man-months from ILO regular budget

VI.A.14

ILO

ECA Integrated Training Course for African Manpower Planners and Administrators of National Training Programmes

ILO participated in this course which was conducted by ECA in Nairobi from 8 July to 28 August 1968 and which was attended by eleven manpower and training planners and administrators from nine African countries. The course devoted four weeks to manpower and educational planning, three weeks to vocational training planning and co-ordination and one week to syndicate work.

Duration: 8 July - 28 August 1968

VI.A.

Joint ILPES - ILO - UN - UNICEF course in Human Resources Planning

This course was held at Santiago, Chile, from 3 September to 15 December 1968 for 30 participants from planning, labour and education administration of 16 Latin American countries. The course covered a wide range of aspects of human resources planning, including problems of economic and social development, utilization of human resources, social aspects of employment, manpower planning, wage policies, youth employment, agrarian and industrial planning, statistics and human resources information.

Duration: 27 September - 15 December 1968

VI.A.11

ILO

Joint ILPES - ILO national course in Brazil on human resources planning

This course, held in Belém de Pará in northern Brazil from 24 July to 17 August, was attended by some 30 participants from planning, educational and labour administrations in the northern states of Brazil. This course follows, and is an integral part of, a three-month course given by ILPES on economic and social development planning and covers a wide range of human resource topics with particular reference to Brazilian conditions.

Duration: 24 July - 17 August 1968

VI.A.12

ILO

Courses conducted for the Asian Institute for Economic Development and Planning

In 1968 ILO participated in the Institute's courses on human resources development and social planning and in its general course on economic development planning. The course on human resources development and social planning was held at the Institute from 1 October to 30 December 1968 and comprehensively covered planning and policy formulation relating to employment creation, manpower aspects of education and training planning and the organization of the employment market. The Institute's six-month general course on economic development planning includes six sessions on various aspects of human resources development covering human resources objectives forecasting techniques and measures for employment promotion and for the development and utilization of skilled manpower.

Duration: 1 October - 30 December 1968 - continuing

- VI.A.18 II Administrative seminar on employment services
- This seminar, organized by ILO, was held by the Centre in September 1968 and was attended by participants from various labour administrations of countries in the developing area. The seminar covered a wide range of topics relating to manpower planning and employment market organization and drew particular reference to the Japanese experience.
- Duration: 7-16 September 1968
- VI.A.19 UNESCO Ecuador - Technical assistance
- On the request of the Government the services of the expert in technical education (industrial) were extended until the end of 1968.
- VI.A.20 UNESCO Mexico - Technical assistance
- The experts working until the end of May 1968 in project MEX.5 were transferred as from 1 June 1968 to technical assistance to advise the Government on technical education. Five fellows in different branches of engineering are continuing their study abroad.
- VI.A.21 UNESCO Advisory services to Member States for the improvement of technological and technical education
- Missions are carried out by consultants and staff members upon request of Member States. Study grants are also given to teaching staff from developing countries for studying the development of high-level technical and engineering education in other countries. A programme of visiting lecturers in the field of engineering education started in 1968. Within this programme lectures are delivered on modern problems in the training of engineers (e.g. in the field of automation).
- Estimated cost: \$14,000

Education and training of engineers and technicians

A seminar on advanced technical education for chief technical advisers and directors of schools, which was a UNESCO/UNDP/ICEP project in Latin America was organized in Quito, Ecuador, from 6 to 13 July 1968.

A similar seminar was organized in Lagos, Nigeria, in September 1968 in connexion with projects in the African countries.

Another seminar lasting one week was organized in September 1968 at the International Centre for Advanced Technical and Vocational Training, Turin, Italy, for chief technical advisers and directors of schools coming under UNESCO/UNDP projects. This seminar was on technical education and can be considered the first of its kind. It is hoped that important problems connected with syllabuses and the structure of technical education were clarified.

VI.A.23

UNESCO

Place of occupational training in education planning

Vocational and professional training in different fields of industry is now accepted as an integrated part of an educational plan. This has been reaffirmed, for instance, in the preparatory document for the International Conference on Educational Planning, 6 to 14 August 1968 (see ICEP/3, Part One, Chapter II, 1, B). Forecasting of manpower needs is an essential exercise in preparing an educational plan.

UNESCO regional centres for training in the field of educational planning include this subject in their courses; all the experts in educational planning take into account preparation for industry (either in specialized or general training in regard to attitudes building as well as to specific knowledge or abilities).

More specifically, assistance was offered to Member States in planning technical education; eight experts have been sent to Member States under this programme (TA \$254,750 was provided to this effect in UNESCO programme and budget for 1967-1968 (14 C/5)).

VI.A.24

UNITAR

"Brain drain" - the international migration of professionals from developing to developed countries

In response to the request of the Under-Secretary-General of ESA, UNITAR has prepared a detailed report with annexes and graphs on the outflow of trained personnel from developing countries. This report is to be used as the basis of the Secretary-General's reply to General Assembly resolution 2320 (XXII) requesting a report on that subject, together with an assessment of the advantages and disadvantages arising from such migration. The report will also be used in the preparation by UNIDO of a reply to General Assembly resolution 2259 (XXII), in which the Assembly invited UNIDO to make a substantial contribution to a report which will, inter alia, consider the problem of the "brain drain" in connexion with the role of the UN in training national technical personnel for the accelerated industrialization of the developing countries.

V.8.10
(1967 CR: IV.A.22)

11

Activities extend to the whole of Singapore, and assistance has been rendered in the fields of economic studies, market research, industrial engineering, tool and die design and manufacture, workshop work, industrial design, metal finishing and plastics. Additionally through association with consultants, foundry and heat treatment services have been rendered. A tool technology post was also subcontracted to FAO. Arising out of the effectiveness of these services rendered and in the growth of industry, a separate project for the development of metal industries has been approved by UNDP and has been in operation since late 1967.

Furthermore, all the experts assigned to this project have undertaken a systematic programme of training national staff (which now total 46 professionals in various fields of expertise), have conducted training programmes for owner managers, supervisors and foremen of small medium-growing units in all sectors of industry. Substantial in-plant advisory and consulting work has been rendered and job work for tool and die making has been undertaken in the workshops as part of the training and consultancy work. Industrial exhibitions have been held in order to encourage the use of appropriate machinery and equipment.

Authority: Government request

Duration: July 1963 - October 1968

Estimated cost and

source of funds: \$565,000 UNDP/SF allocation
\$858,910 Gov't counterpart contribution
\$1,423,910 total

V.8.10
(1967 CR: IV.A.22)

110

Thailand - Small Industries Service Institute

The purpose of the project is to assist the Government in the establishment and initial operation of a Small Industries Service Institute to promote development, modernization and growth of new and existing small-scale industries through the provision of economic studies and market research services, product and process design and testing services, technical and management training and manufacturing services, and extension and advisory services.

In the initial years the Institute will concentrate its activities and efforts in the Bangkok and Thonburi areas and make its services available to small-scale light engineering industries and small-scale textile industries. Such industries are presently owned by private entrepreneurs. Plans will be made during the life of the project to expand activities to industrial areas other than Bangkok and Thonburi. The type of expertise to be provided would be in the areas of small industry management, market research, production management, training and extension, industrial design, foundry, tool and die engineering, metal finishing and textile technology. Additionally some provision exists for expertise in related metal-working fields.

The Institute will consist of five divisions. The economic studies and information division will undertake systematic analysis of the

VI.A.4
(cont'd)

UNIAF

In addition to the above report, UNIAF is conducting a large-scale research project into the social, cultural and motivational factors behind the "brain drain" from developing countries. The director of the project, Mr. A. K. S. Rao, in this subject is to be field studies conducted in selected developing and developed countries through interviews and on standardized questionnaires. UNIAF has been negotiating with research bodies in a representative number of developed and developing countries. It is expected that arrangements will be finalized for field studies in the Federal Republic of Germany, France, India, Iran, the United Kingdom, the United States and elsewhere.

Duration: 1968 - continuing

B. Vocational training, including prevocational training
apprenticeship schemes and functional literacy

VI.B.1

ECA

Regional centres for training in photogrammetry photo-
interpretation and airborne surveys

The multinational meeting on the establishment of regional centres for training in photogrammetry, photo-interpretation and airborne surveys scheduled for October 1968 was postponed and will probably take place in Addis Ababa from 23 June to 3 July 1969.

Duration: 1968 - continuing

VI.B.2

ECA

Common centre(s) for specialized services in surveying and mapping

ECA is making preparations for a multinational meeting of Governments to agree on Intergovernmental Instruments for establishing such centres and on the location of these centres. The meeting is scheduled for 17 to 28 November 1969.

Duration: 1968 - continuing

VI.B.3

ECA

Regional research centre - aerial surveying

(for description see chapter XXX.B.2)

VI.B.4

FAO

Caribbean Region - Caribbean fishery development project

(for description see chapter XXI.4)

- VI.B.1 FAO Benin - Inland fishery project, the Central African Republic, Congo (Brazzaville), Gabon - Inland fishery project
(For description see chapter XXI.4)
- VI.B.2 FAO Central American Region - Central American fishery development project (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama)
(For description see chapter XXI.6)
- VI.B.7 FAO Ceylon - Pre-investment study on forest industries development
(For description see chapter XXIV.17)
- VI.B.8 FAO Chile - FAO Regional Dairy Training Course for Spanish-speaking Countries in Latin America
(For description see chapter XX.24)
- VI.B.9 FAO Congo (Brazzaville) - Forestry training and demonstration centre
(For description see chapter XXIV.20)
- VI.B.10 FAO Dominica - Coir and copra processing industry development, Roseau
(For description see chapter XXII.5)
- VI.B.11 FAO Guinea - Forestry Training and Demonstration Centre
(For description see chapter XXIV.25)
- VI.B.12 FAO India - Sheep and wool development in eight states
(For description see chapter XXII.8)
- VI.B.13 FAO India - Establishment of four logging training centres
(For description see chapter XXIV.27)

- VI.B.14 FAO Iran - Hides, skins and leather development
(For description see chapter XX.47)
- VI.B.15 FAO Kenya - Dairy training
(For description see chapter XX.49)
- VI.B.16 FAO Kenya/Uganda - Regional dairy training course for English-speaking countries in Africa
(For description see chapter XX.50)
- VI.B.17 FAO Republic of Korea - Forestry survey and development
(For description see chapter XXIV.29)
- VI.B.18 FAO Lebanon - Dairy industry, regional (Near East) dairy training courses
(For description see chapter XX.51)
- VI.B.19 FAO Libya - Food processing industries
(For description see chapter XX.52)
- VI.B.20 FAO Madagascar - Fishery development
(For description see chapter XXI.23)
- VI.B.21 FAO Malaysia - Food Technology Research and Development Centre
(For description see chapter XX.56)
- *
- VI.B.22 FAO Niger - Dairy industry development
(For description see chapter XX.60)
- VI.B.23 FAO Pakistan - National forestry research and training programme
(For description see chapter XXIV.37)

- VI.B.25 FAO Senegal - Institute of Food Technology, Dakar
(For description see chapter XX.2)
- VI.B.26 FAO Somalia - Training centre for hides, skins and leather development
(For description see chapter XXVI.8)
- VI.B.27 FAO Southern Yemen (Gulf of Aden) - Fishery development in the Gulf of Aden
(For description see chapter XXI.32)
- VI.B.28 FAO Sudan - Food processing research centre
(For description see chapter XX.75)
- VI.B.29 FAO Thailand - Rubber research and development in South Thailand
(For description see chapter XXII.14)
- VI.B.30 FAO Republic of Viet-Nam - Off-shore fishery development
(For description see chapter XXI.34)
- VI.B.31 FAO Zambia - Forest industries feasibility study
(For description see chapter XXIV.45)

VI.B.33
(1967 CR: V.H.1,
V.P.1)

ILO

Vocational training

In 1968 the ILO programme of research, information-gathering, information through publications in brochure and technical co-operation in the field of vocational training was further reinforced and expanded. No major changes in policy have occurred since the 1967 Consolidated Report was written. Emphasis in most of the programmes - some 75 per cent of all activities in the field of vocational training of ILO relate directly or indirectly to industrial development - continues to be placed on the creation of comprehensive and independent systems of vocational training planned and organized in the framework of general policies of educational and economic development.

The projects listed constitute a selection of those among projects carried out by ILO which are considered to be most directly related to efforts towards industrial development.

The operational activities of ILO in the field of vocational training relating to industrial trades and activities, including the over-all organization and planning of vocational training, comprise some 70 projects implemented by about 300 experts in almost 60 countries. The projects listed hereafter continued or were prepared in 1968 for implementation in 1969.

The indications of cost relate only to international cost and do not include national contributions to the completion of the projects.

VI.B.33

ILO

Planning of vocational training

A three-week seminar was held from 2 to 20 December 1968 to discuss various ways in which vocational training activities may be better planned and developed in Asian countries; some twenty participants and experts drawn from Asian countries attended the seminar.

Authority: Requests by several Asian Governments

Duration: 3 weeks; 2-20 December 1968

Estimated cost and source of funds: \$30,000 from UNDP/TA

VI.B.34

ILO

Programming of prevocational training schemes

A meeting of twelve experts, drawn from educational, vocational training, employers' and workers' circles, was held from 16 to 27 September 1968 to establish, for submission to the ILO Governing Body, basic principles for the programming of prevocational training schemes to facilitate employment of young persons leaving school.

Authority: ILO regular budget programme

Duration: 16-27 September 1968

Estimated cost and source of funds: \$20,000 from ILO regular budget

Principles and practices of training

This is an analytical study of current trends and principles of training as they have been demonstrated in the first six volumes of the CIPE Abstracts. Since the 1967 Consolidated Report, a report was published as an issue of Training for Progress.

Authority: ILO Work Programme

Duration: 1966-1968

Estimated cost and

source of funds: \$10,000 from ILO regular budget

VI.B.37

ILO

Economic criteria for evaluating vocational training programmes

One article, "Economic criteria governing the choice of vocational training systems", has already been completed and published in the International Labour Review (September 1968). The final draft of the second study "Substitution between job training and formal training" is near completion and a third study "Comparative costs of systems of training" was finished by the end of 1968.

Duration: September 1968 - continuing

Estimated cost and

source of funds: 7 man-months from ILO regular budget

VI.B.37

ILO

Prevocational training in developing countries

This is a comparative study of principles and practices applied in prevocational training mostly for industrial employment of young persons in developing countries. Since the 1967 Consolidated Report, country studies and an analytical report have been prepared for publication in Training for Progress and for discussion by an expert meeting on the programming of prevocational training schemes.

Authority: ILO Work Programme

Duration: 6 months; 1968

Estimated cost and

source of funds: \$10,000 from ILO regular budget

VI.B.38

ILO

Vocational teacher and instructor training

The purpose of this joint ILO/UNESCO project is a study of principles and practices applied in the training of teachers, instructors, training officers and other training personnel in national training systems and in undertakings in selected industrial and developing countries.

Authority: Joint ILO/UNESCO project

Duration: 1966-1969

Estimated cost and

source of funds: \$15,000 per annum from ILO and UNESCO regular budgets

CIRF publications

Under this project the following publications have been published:

CIRF Abstracts. This publication, appearing quarterly, contains substantive abstracts of current work in the field of human resources development and, particularly, of vocational training and education with emphasis on industrial training. Each year, 100 titles are abstracted, published in six or seven issues, and classified in a binder included in the subscription price.

Training for Progress. This bulletin provides interesting descriptions of cases of training. The issues published in 1968 include descriptions of prevocational training schemes in developing and industrial countries, of personnel training for new industries, and of training connected with the introduction of new products.

CIRF monographs. Two monographs have been published to date: Training of Vocational Teachers (out of print) and European Apprenticeship.

Authority: ILO Work Programme

Duration: Continuing

Estimated cost and

source of funds: \$75,000 per annum from ILO regular budget

Centro Interamericano de Investigación y Documentación sobre Formación Profesional (CINTERFOR)

CINTERFOR is a regional centre for research and methods development in the field of vocational training and for the training of staff of vocational training institutions in the American region. In 1967, CINTERFOR published a great number of reports, *inter alia*, on co-ordination between vocational training and vocational education, job analysis in the undertaking, a basis for a policy on vocational training, apprenticeship in some Latin American countries and other studies relating to industrial and other vocational training. It held several seminars in 1968 on general and particular aspects of vocational training action including the general planning of vocational training, training in the chemical industry, documentation work in vocational training, training of unemployed youths with a view to industrial employment and others. It also organized courses in programmed instruction for industrial use and in the methods of training supervisors in industry.

Authority: ILO Work Programme

Duration: 1964 - continuing

Estimated cost and

source of funds: \$150,000 per annum supplied by ILO regular budget, the Government of Uruguay and UNDP/IA; in addition a number of Latin American countries make cash contributions to CINTERFOR's budget

VI.B.41

ILO

Evaluation of industrial projects of technical co-operation

This is a study of criteria and indicators which may be applied in internal evaluation of individual projects and in the assessment of the impact made by these projects on the level of competence, efficiency, mobility of staff etc. of industrial workers in developing countries.

Authority: ILO Work Programme

Duration: 1967 - continuing

Estimated cost and

source of funds: About \$35,000 per annum from ILO regular budget

VI.B.42

ILO

Youth employment and training schemes

This project is a study of practices and legislation relating to youth employment and training schemes in developing and industrial countries with a view to the possible adoption by the International Labour Conference of an international instrument through which such schemes could be implemented. The first discussion in this connexion will take place at the 1969 International Labour Conference.

Authority: ILO Work Programme

Duration: 1964-1970

Source of funds: ILO regular budget

VI.B.43

ILO

In-plant training

The purpose of this project is a long-term comprehensive study of various possibilities and constraints in the development of effective and high-quality in-plant training programmes including apprenticeship with emphasis on industrial trades. In this study special attention is given to the problems encountered in the chemical industries and the building trades during 1967 and 1968. Reports on training in the chemical industries and in the building trades are to be published in 1969.

Authority: ILO Work Programme

Duration: Continuing

Estimated cost and

source of funds: About \$20,000 per annum from ILO regular budget

VI.B.44

ILO

Planning and organization of vocational training

The purpose of this project is to establish a long-term programme of research on the principles and practice of planning and organizing training with emphasis on in-plant training in industrial undertakings of different sizes. Field studies were initiated by an international expert meeting (Coventry 1965), regional seminars and research closely connected with the elaboration of the ILO regional employment plans and world employment programme. Since the 1967 Consolidated Report, reports have been completed on general principles of planning and organization, and on special aspects of planning and organization in selected African and Latin American countries.

Authority: ILO Work Programme

Duration: 1965 - continuing

Estimated cost and source of funds: About \$25,000 per annum from ILO regular budget

VI.B.45

ILO

Impact of technological change on the planning and organization of training

The project consists of 30 case studies on recruitment and training problems encountered in large factories which use sophisticated production equipment and were recently established in six eastern and western European countries. The plant studies have been completed; the analytical report will be published early 1969.

Authority: ILO Work Programme

Duration: 1967-1968 (analytical report to be published in 1969)

Estimated cost and source of funds: \$20,000 from ILO regular budget

VI.B.46

ILO

Africa, English-speaking - Regional vocational training adviser

The purpose of this project is to provide English-speaking African Governments, on request, with advice and assistance in planning vocational training action, with emphasis on training for industry. The project includes the determination of training needs, the establishment of priorities at the national level and the drawing-up of plans covering both national action and technical co-operation.

Authority: Request from several African Governments

Duration: Continuing

Estimated cost and source of funds: \$29,000 from UNDP/TA

VI.B.4

ILO

Africa, French-speaking - Regional vocational training adviser

The purpose of this project is to provide French-speaking African Governments, on request, with advice and assistance on planning vocational training action, with emphasis on training for industry. The project includes the determination of training needs, the establishment of priorities at the national level and the drawing-up of plans of action covering both national action and technical co-operation.

Authority: Request from several African Governments

Duration: Continuing

Estimated cost and source of funds: \$29,000 from UNDP/TA

VI.B.48

ILO

Asia - Regional vocational training adviser

The purpose of the project is to provide Asian Governments, on request, with advice and assistance in planning vocational training action, with emphasis on training for industry. The project includes the determination of training needs, the establishment of priorities at the national level and the drawing-up of plans of action covering both national action and technical co-operation.

Authority: Request from several Asian Governments

Duration: Continuing

Estimated cost and source of funds: \$29,000 from UNDP/TA

VI.B.49

ILO

Latin America - Regional vocational training adviser

The purpose of this project is to provide Latin American Governments, on request, with advice and assistance in planning vocational training action, with emphasis on training for industry. The project includes the determination of training needs, the establishment of priorities at the national level and the drawing-up of plans of action covering both national action and technical co-operation.

Authority: Request from several Latin American Governments

Duration: Continuing

Estimated cost and source of funds: \$29,000 from UNDP/TA

V.B.11
(cont'd)

11

problems concerning new products will be investigated and will assist market surveys related to certain industrial products. The design and testing division will provide facilities for the development of new products or processes, and the dies, jigs, tools and fixtures required for the same. It will also develop prototype equipment for specific needs.

The workshop division will provide training for upgrading skills of small industry technical workers, managers, entrepreneurs, farmers and skilled workers in production techniques. The textile division will render training to technicians and managers of small textile undertakings in improved methods of production of fabric designs where appropriate. The extension and training division will assist all experts on the project in performing their training functions and in extending their services to small units in the field.

Authority: Government request

Duration: 5 years; March 1966-1971

Estimated cost and

source of funds: \$915,100 UNDP/SF allocation

\$1,287,315 Gov't counterpart contribution (in kind)
\$2,202,415 Total

V.B.11

ILO

United Arab Republic - Institute of Small Industries, Cairo

The purpose of the present project, which is a second phase project, is to advise the Government and to give additional assistance in establishing and operating an Institute of Small Industries. The first phase was started in November 1962 and was completed on 31 December 1967. The activities of the Institute cover the whole country. The technical assistance is given to small and medium-sized industrial enterprises in such fields as technical investigation, economic research, training, demonstration and extension, and information services. The project is going to co-operate with UNIDO's Industrial Product Design Projects.

Authority: Government request

Duration: January 1966 - 31 December 1969

Estimated cost and

source of funds: \$537,400 UNDP/SF allocation

\$1,689,253 Gov't contribution
\$2,226,653 Total

VI.B.50

ILO

Middle East - Regional vocational training project

The purpose of this project is to provide Middle East Governments, on request, with advice and assistance in planning a national training action, with emphasis on training for industry. The project includes the determination of training needs, the establishment of priorities at the national level and the drawing-up of plans of action covering both national action and technical co-operation.

Authority: Request from several Middle East Governments

Duration: Continuing

Estimated cost and source of funds: \$29,000 from UNDP/TA

VI.B.51
(1967 CR: V.H.6)

ILO

Algeria - Institut National de Formation Professionnelle des Adultes (National Vocational Training Institute for Adults)

The purpose of this project was to re-organize the technical and pedagogical services of the Institute for adult training and of the Centre for training and further training of instructors, to define vocational training terms in priority sectors of the economy and to assess training needs; to elaborate training and further training programmes for schools and industry; and to train maintenance and administrative personnel.

Authority: Government request

Duration: March 1965 - September 1968

Estimated cost and source of funds: \$909,800 from UNDP/SF

VI.B.52
(1967 CR: V.H.6)

ILO

Argentina - Vocational training of adults

The purpose of this project is to establish a new department within the Consejo Nacional de Educacion Tecnica (CONET) for the training of adults in centres and in undertakings at skilled-worker level and for the training of staff for running the scheme at national and regional levels. The project is a logical continuation of previous assistance given to CONET. Six experts and expert instructors, and three fellowships were provided.

Authority: CONET

Duration: April 1967 - December 1968; continuation likely

Estimated cost and source of funds: \$70,000 from UNDP/TA;
\$6,500 for equipment

VI.B.54

Burma - Vocational training in electrical trades

The purpose of the project is to advise on various aspects of vocational training with emphasis on the training of electricians at skilled-worker level; to assist in the planning and equipping of the proposed training centre including a department for electrical trades; and to help in the organization of courses and the instruction of teachers.

Authority: Government request

Duration: January 1967 - December 1968

Estimated cost and

source of funds: \$43,000 from UNDP/TA

VI.B.54

ILO

Brazil - Human resources development, vocational training, civil engineering and electrical trades

The purpose of the project is to prepare and implement a methodology for the accelerated training in production of skilled workers in the building trades; to prepare new guidelines for the training of skilled workers and technicians in electrical trades; to analyse the occupational structure in the field of electrical work and to develop new methods of training adapted to changing needs.

Authority: Direção da Mão de Obra; SENAI

Duration: June 1968 - September 1969

Estimated cost: \$33,000

VI.B.55

ILO

Burma - Vocational training adviser

The purpose of this project is to assist the Central Training Council in formulating a long-term development programme of vocational training facilities in Burma and to prepare plans for its implementation. The programme should provide for national control, promotion of vocational training activities and for the establishment of training facilities for instructors, supervisors and other training staff outside and within industrial undertakings. The project covers all in-plant training including apprenticeship and is closely connected with previous assistance given by an ILO manpower expert and a preliminary assessment mission undertaken in 1966/67.

Authority: Government request

Duration: January - December 1968; continuation likely

Estimated cost and

source of funds: \$22,000 from UNDP/TA

VI.B.54
(1967 CR: V.H.5)

ILO

Cambodia - Centre pour la formation et l'emploi des jeunes (CENFROA)

The purpose of this project was to establish and operate three national Centres to provide for training of skilled technicians, instructors and supervisors, further training of managers, improvement of productivity and research in job analysis, and to establish training programmes and training material (including audio-visual aids).

Authority: Government request

Duration: December 1962 - December 1968

Estimated cost and source of funds: \$1,010,200 from UNDP/SF

VI.B.57
(1967 CR: V.H.6)

ILO

Ceylon - Vocational training adviser

The purpose of this project is to plan a comprehensive vocational training programme co-ordinating all vocational training activities in the country and to establish a vocational instructor training institute to supply schools, centres and industry with instructors in several industrial trades. Eleven experts, eleven fellowships and equipment totalling \$300,000 were requested from UNDP/SF. Since the 1967 Consolidated Report, UNDP/SF assistance has been requested, expanding the project to the level of \$1,093,600.

Authority: Government request

Duration: January 1967 - December 1968 (preparatory stage)

Estimated cost and source of funds: \$44,000 from UNDP/TA

VI.B.58
(1967 CR: V.H.6)

ILO

Chile - National centre for the training of instructors, supervisors and highly-skilled workers (CENSIS)

This project consisted of the establishment of a national vocational training centre for instructors, supervisors and highly-skilled workers employed in the Instituto Nacional de Capacitación Profesional (INACAP) training centres or in industry and further training of skilled workers. Action within this project has included training for industry in the metal trades, electrical trades, welding, industrial design and building trades.

Authority: Government request

Duration: August 1963 - December 1968

Estimated cost and source of funds: Total international assistance \$1,331,557 from UNDP/SF

VI.8.5
(1967 CR: V.H.5)

Chile - National training service for industry

The purpose of this project is to assist the Government in (a) the establishment of a national vocational training office to co-ordinate and promote the development of industrial vocational training (including in-plant training and apprenticeship); to analyse trade skill standards and develop testing procedures and (b) to establish a pilot accelerated training centre to provide training and up-grading in eight industrial trades for workers, instructors and craftsmen/supervisors.

Authority: Government request

Duration: April 1968-1971

Estimated cost and source of funds: \$1,013,500 from UNDP/SF

VI.8.60

ILO

Colombia - In-plant training programme

The purpose of the project is to establish, within the Servicio Nacional de Aprendizaje (SENA), a unit responsible for the planning, organization and initial operation of an in-plant training scheme and for the establishment of a pilot training centre offering up-grading courses. The project will also include assistance to industries in organizing their own training scheme and mobile training units, in training the teaching staff and in preparing teaching material.

Authority: Government request

Duration: December 1967 - December 1971

Estimated cost and source of funds: \$1,055,400 from UNDP/SF

VI.8.61
(1967 CR: V.H.6)

ILO

Colombia - National Vocational Training Service

The purpose of this project was to strengthen within The Servicio Nacional de Aprendizaje (SENA) the central services for planning, administration and financing; to reinforce the services responsible for preparing training material and for the training of teaching staff; to develop the facilities for training industrial technicians and supervisors, and to expand the facilities for basic and further training of supervisors and managers of agricultural and stock-breeding undertakings.

Authority: Government request

Duration: December 1963 - December 1968

Estimated cost and source of funds: \$791,800 from UNDP/SF

VI.B.62

ILO

Congo (Democratic Republic) - National Institute of Vocational Training

The purpose of this project is to assist the Institut National de Préparation Professionnelle to coordinate the training activities in all sectors of the economy and to organize training and further training of instructors, supervisors, trained directors, young and adult workers in metal, electrical and automotive trades.

Authority: Government request

Duration: May 1964 - June 1970.

Estimated cost and

source of funds: \$1,413,000 from UNDP/SF;
\$170,000 for equipment

VI.B.63
(1967 CR: V.H.6)

ILO

Costa Rica - National Institute of Apprenticeship

The purpose of this project is to assist the Instituto Nacional de Aprendizaje (INA) in the implementation of an industrial vocational training scheme, in the organization of its central technical and administrative services and in the establishment of a pilot training centre for instructors, supervisors, adult and young workers. The project will also help to draw up a permanent national manpower assessment programme and to establish short and medium-term vocational training programmes; to develop a vocational selection and guidance programme; to plan and implement an industrial apprenticeship and in-plant training programme and to organize a mobile training units system.

Authority: Government request

Duration: October 1967 - October 1972

Estimated cost and

source of funds: \$1,157,300 from UNDP/SF

VI.B.64
(1967 CR: V.B.8,
V.H.6)

ILO

Cyprus - Vocational training and management development centre, Nicosia

The purpose of the project is to assist the Government in establishing the productivity centre in Nicosia which will undertake training activities in the following fields: general management, marketing, management accounting; training of workers in metal, electrical and automotive trade, and supervisory and instructor training in schools.

The activities of the project are carried out through courses and seminars, in-plant training and follow-up, consultancy and advisory services. Equipment has been provided for the workshops of the centre where training is being provided. Particular attention is given to training of national counterparts. The training is given by experts on the spot and through fellowships for studies abroad.

The project is a three-year project covering the period 1967-1970. It is part of the project on the industrial development of the country, administered by UNDP/TA.

The project is a three-year project followed by a two-year continuation project starting in January 1971, for which a request has been submitted to UNDP/TA.

Authority: Government request

Duration: 19 December 1967 - 31 December 1968

Estimated cost and

source of funds: \$903,400 UNDP/TA (\$176,000 for equipment)

\$521,142 Gov't contribution

\$1,424,542 Total

VI.C.65

ILO

Dominican Republic - Vocational training

The purpose of this project is to study and evaluate short and long-term training needs, to analyse existing training facilities and to formulate recommendations with a view to the formulation of national vocational training policies and structure.

Authority: Government request

Duration: June 1968 - December 1969

Estimated cost and

source of funds: \$11,550 from UNDP/TA

VI.R.66

ILO

Ecuador - Ecuadorian Service for Vocational Training

The purpose of the project is to assist in the organization and operation of the Servicio Ecuatoriano de Capacitación Profesional (SECAP), to participate in the organization of the administrative structure and to prepare the necessary national personnel and planning of activities.

Authority: Government request

Duration: 1967-1970 (if approved by UNDP/SF)

VI.E.67

(1967 CP; V.H.6)

ILO

El Salvador - Accelerated vocational training in the building trades

The purpose of this project is to establish a national accelerated vocational training system for the building trades required for reconstruction after an earthquake and to establish a pilot centre for accelerated training and of a mobile unit for the practical training of workers.

Authority: Government request

Duration: 1965 - April 1969

Estimated cost and

source of funds: \$90,000 from the Emergency Fund and UNDP/TA

VI.B.69

ILO

Ghana - Vocational training

The purpose of the project is to establish and operate a training scheme for skilled workers, including apprenticeship; to develop training activities at two institutes for advanced vocational training; and to organize and develop courses for skilled workers in the automotive, building, electrical, general mechanical and metal trades.

Experts from the Coopération technique française and one expert from USAID are included in the project.

Authority: Government request

Duration: August 1967 - December 1970

Estimated cost and

source of funds: \$80,000 from UNDP/TA plus bilateral aid funds

VI.B.69

ILO

Ghana - National vocational training programme

The purpose of the project is to establish and organize a vocational training institute; to organize apprenticeship and in-plant training programmes and training for industrial and clerical workers; to develop training standards and trade testing methods; to train instructors and training officers; and to prepare for the establishment of a pilot vocational training centre.

Authority: Government request

Duration: 4 years; 1963-1972

Estimated cost and

source of funds: \$705,400 from UNDP/SF

VI.B.70

ILO

Ghana - Training and further training of instructor and supervisors

The purpose of the project is to establish and operate a training scheme for foremen and supervisors and to assist industrial undertakings in training and up-grading their personnel. Emphasis will be placed on priority economic sectors such as the mechanical, electrical, building and textile trades. The project is closely related to the ILO project on vocational training of instructors' centre and a UNESCO project for technical education.

Authority: Government request

Duration: February 1966 - January 1970

Estimated cost and

source of funds: \$100,000 from Trust Funds and UNDP/SF

VI.B.72 ILO

Greece - Vocational training of instructors - pilot centre of
Volos etc.

The purpose of this project was to establish a pilot centre for instructor training and several training centres for training workers needed for implementing the Greek Plan of Industrialization and to organize courses for instructors and workers for the building, metal, mechanical, electrical and textile trades.

Authority: Government request

Duration: January 1965 - December 1968

Estimated cost and
source of funds: \$480,000 from UNDP/TA

VI.B.73 ILO

Hong Kong - Vocational training adviser

The purpose of this project is to establish industrial trade testing and certification standards; to co-ordinate and improve existing training schemes; to obtain participation of small-scale industries in training schemes; to organize instructor training for schools and industry, and to develop prevocational training.

Authority: Government request

Duration: June 1967 - July 1969 (extension likely)

Estimated cost and
source of funds: \$44,000 from UNDP/TA

VI.B.74 ILO

India - Tool room centre, Hyderabad

The purpose of the project is to assist in the establishment of a tool room centre for small industries and to provide advisory services, among others, on design and development of tools, on the training of supervisors and workers and on the production of tools.

Authority: Government request

Duration: 5 years; 1968-1973

Estimated cost and
source of funds: \$951,700 from UNDP/SF

VI.B.74 ILO

India - National apprenticeship scheme

The purpose of this project is to assist in the establishment of central technical services and regional apprenticeship headquarters for an expanded implementation of the 1961 Apprenticeship Act.

Authority: Government request

Duration: 5 years; 1967-1973

Estimated cost and
source of funds: \$1,111,100 from UNDP/SF

VI.B.75

ILO

India - Advanced vocational training institute, Meerut

The purpose of the project is to assist in the establishment of an advanced vocational training institute to serve as a model for similar institute in other parts of India. The pilot institute will provide for advanced industrial vocational training, develop new methods, curricula and teaching materials in the tool-making, tool design, foundry, fitting, welding, heat treatment and metrology fields.

Authority: Government request

Duration: 1968-1973

Estimated cost and source of funds: \$932,500 from UNDP/TA

VI.B.76

ILO

India - Training and advisory services in tool, die and mould making for the plastics and other industries

The purpose of this project is the establishment of an autonomous pilot institute for training and advisory services in the design and construction of tools, moulds and dies for the plastics processing and other industries; for the training of graduates from training institutes, experienced apprentices and adults from industry, graduates from polytechnics and other engineering colleges and institutes; and for providing short courses for specialized workers.

Authority: Government request

Duration: July 1968 - 1972/73

Estimated cost and source of funds: \$814,000 from UNDP/SF

VI.B.77
(1967 CR: V.H.6)

ILO

Indonesia - Training for industry, Bandung and Uikarta

The purpose of this project was to provide for a better utilization of the existing equipment in two training centres; to organize a training programme in craft skills and to organize and conduct courses in centres and in industry for maintenance personnel from industry.

Authority: Government request

Duration: August 1967 - December 1968 (extension to 1969 likely)

Estimated cost and source of funds: \$128,000 from UNDP/TA (\$36,000 for equipment)

Yemen - Vocational training organization

The purpose of the project is to establish a vocational training organization to provide technical training and further training facilities and to provide services for vocational training.

Authority: Government request

Duration: November 1965 - December 1969

Estimated cost and

source of funds: \$70,000 from UNDP/TA

VI.B.77

ILO

Iraq - Railway training institute: training of maintenance workers

The purpose of the project is to prepare programmes and syllabi; to arrange for training and up-grading of workers and instructors; and to prepare an apprenticeship training scheme.

Authority: Government request

Duration: January 1965 - February 1969

Estimated cost and

source of funds: \$95,000 from UNDP/TA

VI.B.80

(1967 CR; V.H.6)

ILO

Ivory Coast - Vocational training planning and organization

The purpose of this project is to establish The National Office for Vocational Training (Office National de Formation Professionnelle); to analyse the national development programme to establish manpower needs and social and economic priorities; and to co-ordinate the activities of existing training facilities.

Authority: Government request

Duration: May 1966 - June 1969

Estimated cost and

source of funds: \$74,000 from UNDP/TA

VI.B.81

ILO

Jordan - Industrial maintenance and foremen training

The purpose of the project is to improve the standards of plant maintenance in Jordanian industries by training foremen and maintenance personnel and by providing design training courses and syllabi for foremen, mechanics and electricians in maintenance services.

Authority: Government request

Duration: July 1968 - January 1969 (extension likely)

Estimated cost and

source of funds: \$10,000 from UNDP/TA

1000
1000

Uganda - Management Training and Advisory Centre

The purpose of the project is to assist the Government in establishing and operating a Management Training and Advisory Centre, to prepare Ugandan personnel for managerial and supervisory posts, to provide Ugandan entrepreneurs with advisory services and technical training, and to assist in improving the organization and operation of enterprises.

The Centre was established in Kampala and provides the following services: advisory, training and development programmes and collection and dissemination of information and documentation. Training courses are held both at the centre and on the job. Central workshops are provided as pilot demonstration and there is a Development and Training Centre consisting of four units covering metal, electrical, automobile engineering and wood products processing. A mobile workshop serves areas far away from Kampala.

The services are given through advisory and consultancy services, training and development programmes and information and documentation programmes. (This project is complementary to the UNDP/UNIDO project for the setting up of a small-scale industries industrial estate for which it will provide training and advisory services).

Authority: Government request

Duration: 5 years; 1965-1970

Estimated cost and source of funds:

\$1,099,500 UNDP/SF allocation (consisting of \$90,000 UNDP/SF contribution and \$108,600 Gov't contribution)
\$ 699,342 Gov't counterpart contribution

V.B.13

UNIDO/ILO

Organization of industrial extension centres

The UNIDO secretariat undertook the preparation of a programme of action to be carried out, on a continuing basis, by UNIDO and ILO which called for the creation of new industrial extension centres and for the strengthening of existing ones. A questionnaire aimed at identifying the needs of different countries with respect to industrial extension services was prepared in 1968, and, after review by ILO, will be dispatched early in 1969 to different authorities in the developing countries.

Authority: IOB, 1968 (IO/P/26, para. 196)

Duration: September - November 1968

Estimated cost: 2 man-months

VI.B.82

ILO

Korea - National Institute of Vocational Training

The purpose of the project is to develop and implement a semi-autonomous central vocational training body for organizing an in-plant training programme; to determine trade standards and testing procedures and to prepare training material. The functions of the Institute will include instructor training up-grading courses for teaching staff in schools and industry and the running of a pilot vocational training centre offering training and up-grading courses for adult workers in the automotive, metal and building trades.

Authority: Government request

Duration: July 1968 - July 1973

Estimated cost and

source of funds: \$851,900 from UNDP/SE

VI.B.83

ILO

Republic of Korea - Central vocational training institute

The purpose of the project is to develop and implement an industrial vocational training scheme and to establish a semi-autonomous central vocational training body for organizing an in-plant training programme; to determine trade standards and testing procedures and to prepare training material. The functions of the Institute will include instructor training up-grading courses for teaching staff in schools and industry and the running of a pilot vocational training centre offering training and up-grading courses for adult workers in the automotive, metal and building trades.

Authority: Government request

Duration: August 1968 - 1973

Estimated cost and

source of funds: \$1,129,300 from UNDP/SE

VI.B.84
(1967 CR: V.H.6)

ILO

Kuwait - Vocational training of adult workers

The purpose of this project is to assist in the establishment of a pilot training centre for the vocational training of adult workers, craft instructors and supervisors and in the provision of consultancy services on training to industrial undertakings; to plan and develop training courses to suit local conditions. The following fields are covered by this project: motor vehicle repair and maintenance, general electrical trades, air-conditioning and refrigeration, maintenance of water desalination plants, electric arc and gas welding.

Authority: Government request

Duration: January 1967 - May 1969

Estimated cost and

source of funds: \$775,000 Gov't trust fund

1968

111

Lebanon - Vocational training in photogrammetry

The purpose of the project is to establish vocational training programmes for different technical fields of photogrammetry and to train nationals to take over after the end of technical assistance.

Authority: Government request

Duration: June 1968 - December 1969

Estimated cost and

source of funds: \$36,000 from UNDP/TA

VI.B.86

ILO

Lebanon - Vocational training adviser

The purpose of the project is to organize vocational and technical training activities in undertakings; to train vocational and technical training specialists for the departments concerned in the Ministry of Labour; and to analyse the possibility of expanding the Accelerated Vocational Training Centre of Dekwané.

Authority: Government request

Duration: October 1967 - December 1970

Estimated cost and

source of funds: \$78,000 from UNDP/TA

VI.B.87

ILO

Libya - Industrial vocational training scheme

The purpose of the project is to assist the Government in the organization and initial operation of a directorate of training at the Ministry of Labour and Social Affairs. It will assist also in the establishment of regional industrial vocational training centres at Benghazi and Tripoli for instructors, supervisors and adult workers and in the establishment of in-plant training programmes including apprenticeship for industrial workers and training of staff for running the scheme after the end of the project.

Authority: Government request

Duration: December 1967 - December 1972

Estimated cost and

source of funds: \$1,562,500 from UNDP/SF

VI.B.88

ILO

Malaysia - Industrial Training Institute, Kuala Lumpur

This project develops further the assistance previously provided by request by ILO to establish the Institute. It comprises the following: manpower planning and vocational training projects; planning and implementation of instructor training courses for mechanical, electrical, building and printing trades; preparation of reference courses for instructors/supervisors; supervision of instructional practices; and preparation work for a larger contract for instructor training.

Authority: Government request

Duration: June 1968 - June 1969

Estimated cost and source of funds: \$22,000 from UNDP/TA

VI.B.89
(1967 CR: V.H.6)

ILO

Malaysia - Vocational training adviser

The purpose of this project was to establish the Directorate General of Employment and Training within the Ministry of Labour to meet the need for skilled workers identified in the economic development plan; to set up a training service within the Directorate and to prepare courses in mechanical, electrical, building, printing and other trades for registered apprentices, unemployed youths and instructors/supervisors.

Authority: Government request

Duration: November 1966 - December 1968

Estimated cost and source of funds: \$47,000 from UNDP/TA

VI.B.90
(1967 CR: V.H.6)

ILO

Malaysia - Specialists Trade Centre

Following the establishment of the Specialists Trade Centre in Sabah, the function of this project was to assess the needs of industry in the State of Sabah for trained manpower in auto-mechanics, welding, blacksmith, fitting and wood-working, and to prepare syllabi and training material for practical related instruction.

The project is related to the current manpower planning and vocational training adviser project.

Authority: Government request

Duration: April 1966 - December 1968

Estimated cost and source of funds: \$54,000 from UNDP/TA

Venezuela - National training, organization and planning

The purpose of this project is to assess vocational training needs; to organize and plan training activities in the private and public sectors of the economy; to establish training programmes; to analyze existing training facilities in order to detect insufficiencies; to propose measures to cope with the manpower needs established by the Economic and Social Development Plan; and to formulate comprehensive training and further training programmes.

Authority: Government request

Duration: April 1968 - March 1969

Estimated cost and

source of funds: \$24,000 from UNDP/TA

VI.B.2
(1967 CR: V.H.6)

110

Mauritius - National system of vocational technical education

The purpose of this project is to assist the Government in the establishment and initial operation of a comprehensive national system of vocational and technical education including the organization of a national administrative and supervisory office and of a national advisory council for industrial training. It will also aid in the establishment of a pilot industrial trades training centre, in the initiation of an in-plant training programme in industry and in the improvement of the existing technician training at the John Kennedy Technical College.

Authority: Government request

Duration: February 1967 - 1972

Estimated cost and

source of funds: \$960,900 from UNDP/SF

VI.B.3
(1967 CR: V.H.6)

110

Mexico - Servicio Nacional de Adiestramiento Rápido de la Mano de Obra en la Industria (ARMO)

The purpose of this project is to train qualified and highly qualified personnel, through ARMO, for improving productivity in enterprises; to organize and control the accelerated training programmes; and to stimulate industrial undertakings to participate in training programmes.

Authority: Government request

Duration: October 1965 - 1970

Estimated cost and

source of funds: \$1,399,500 from UNDP/SF

VI.B.95 - Vocational training, Mauritania

The purpose of the project is to provide vocational training, including a certificate program, for young men, to enable them to acquire skills and knowledge in vocational fields in order to contribute to the development of the country.

Authority: Government request

Duration: April 1966 - March 1967

Estimated cost and

source of funds: \$4,500 from UNDP/TA

VI.B.95

ILO

New Caledonia - Vocational training of mechanics (marine diesel engines)

The purpose of the project is to organize a vocational training scheme for marine diesel engine mechanics, regular training courses and training programmes for instructors.

Authority: Government request

Duration: June 1968 - December 1968 (extension likely)

Estimated cost and

source of funds: \$14,000 from UNDP/TA

VI.B.96

ILO

Pakistan - Manpower planning, apprenticeship unit

The purpose of the project is to prepare a national apprenticeship scheme; to develop policies and standards, including regulations and selection techniques; to assist provincial governments in introducing apprenticeship training courses and to assist industry in putting them into force; and to train apprenticeship advisers to work in industry.

Authority: Government request

Duration: May 1965 - 1970

Estimated cost and

source of funds: \$400,000 from UNDP/SF

VI.B.97
(1967 CR: V.H.6)

ILO

Pakistan - Instructor training institute, Hyderabad

The purpose of this project is to establish an instructor training institute to improve standards of trade instructors in the fitter, machinist, turner, welder/sheetmetal, automotive, diesel, pipefitter/plumber and electrical trades.

Authority: Government request

Duration: July 1967-1970/1971

Estimated cost and

source of funds: \$700,000 from UNDP/SF

Peru - Marine Diesel Engine Training Centre, Marayungari

The purpose of the project is the further development of the Marine Diesel Training Centre, established with UNDP assistance (entered in 1965), and the provision of course syllabi for instructors and craftsmen in diesel mechanics, shipbuilding (rivercraft), draughtsmanship, steam and gas turbines, and welding.

Authority: Government request

Duration: 1965-1970/1971

Estimated cost: \$82,800 (in 1967/1969)

VI.R.00

110

Panama - Development of human resources, vocational training

The purpose of the project is to organize, together with the Instituto para la Formación y Aprovechamiento de los Recursos Humanos (IFARHU), a service responsible for the establishment, on a permanent basis, of a national vocational training policy and to develop the necessary administrative and technical structure and standards for the training of young and adult workers for industry.

Authority: Government request

Duration: July 1968 - July 1969

Estimated cost and

source of funds: \$26,000 from UNDP/TA

VI.R.100

(1967 CR: V.R.6)

110

Peru - Servicio Nacional de Aprendizaje y Trabajo Industrial (SENATI)

The purpose of this project is to assist the national training service (SENATI) in the establishment of two training centres in the north and south of the country, and to draw up training programmes for the new centres mainly in general mechanics and automotive mechanics, maintenance of agricultural machines, wood-working machines and electricity.

Authority: Government request

Duration: May 1968-1971

Estimated cost and

source of funds: \$982,400 from UNDP/SF (\$225,000 for equipment)

VI.B.101
(1967 CR: V.H.5)

ILO

Philippines - vocational training

The purpose of this project is to assist in the co-ordination and improvement of technical and vocational training; to prepare a plan of action for a program to improve the skills of the industrial work force, covering activities for skilled workers, trade testing, upgrading courses for unskilled craftsmen and supervisors, accelerated courses for new entrants and instructor training.

Authority: Government request

Duration: July 1966 - May 1967 (extensions likely under UNDP)

Estimated cost and

source of funds: \$48,000 from UNDP/TA

VI.B.102

ILO

Saudi-Arabia - Vocational training for adult workers

The purpose of the project is to assist the Government in establishing a pilot training centre in Riyadh in the automotive, building, metal, maintenance (farm machinery) electrical and printing trades, to plan and develop courses to suit local conditions and to train instructors and workers.

Authority: Government request

Duration: 1963 - continuing

Estimated cost and

source of funds: \$555,000 (present phase) from Gov't Trust Fund

VI.B.103
(1967 CR: V.H.6)

ILO

Sierra Leone - Vocational training in building trades

The purpose of this project was to assist in the up-grading of training activities in carpentry, electrical and plumbing trades.

Authority: Government request

Duration: August 1967 - August 1968

Estimated cost and

source of funds: \$22,000 from UNDP/TA

India - Vocational training scheme

The purpose of the project is to assist the Government in the establishment and initial operation of a vocational training department at the Ministry of Labour, and of a pilot training centre for the accelerated training of instructors, supervisors and adult workers and in setting up an industrial apprenticeship training programme, closely related to ILO assistance in the establishment of a management development and productivity centre.

Authority: Government request

Duration: April 1968 - December 1973

Estimated cost and

source of funds: \$15,400 (100 component including experts and equipment for vocational training); UNDP/IF

VI.105

ILO

India - National vocational training scheme

The purpose of the project is to assist the Government in the establishment and initial operation of a vocational training department at the Ministry of Labour, and of a pilot training centre for the accelerated training of instructors, supervisors and adult workers and in setting up an industrial apprenticeship training programme, closely related to ILO assistance in the establishment of a management development and productivity centre.

Authority: Government request

Duration: May 1968 - May 1973

Estimated cost and

source of funds: \$913,700 from UNDP/SF

VI.106
(1967 ER: Y.N.C)

ILO

Swaziland - Vocational training adviser

The purpose of this project was to assist in the formulation of a comprehensive national vocational training scheme, including examination and testing procedures and reorganization of the existing trade centre under the National Council for Industrial Vocational Training and Trade Testing.

Authority: Government request

Duration: 2 years; October 1966 - October 1968

Estimated cost and

source of funds: \$48,000 from UNDP/TA

VI.B.107
(1967 R: V.H.6)

ILO

United Republic of Tanzania - National industrial apprenticeship scheme

The purpose of this project is to assist the government in the activities of a vocational training centre to develop and prepare new teaching material for industrial training purposes and to assist in the establishment of an industrial training scheme in industry.

Authority: Government request

Duration: August 1968 - August 1969

Estimated cost and source of funds: \$24,000 from UNDP/TA

VI.B.108

ILO

United Republic of Tanzania - National industrial apprenticeship scheme

The purpose of the project is to assist the government in the establishment and initial operation of a national industrial apprenticeship scheme, including the setting-up of a national vocational training council, a trade training and testing department within the Ministry of Labour and the design of an in-plant training programme covering also apprentice training. The project is closely related to the UNDP/SF project establishing a national institute for productivity (see chapter VI.B.18).

Authority: Government request

Duration: June 1968 - June 1973

Estimated cost and source of funds: \$764,600 from UNDP/SF

VI.B.109
(1967 R: V.H.6)

ILO

Thailand - Vocational training adviser

The purpose of this project is to plan and organize a national training programme in the light of existing and developing needs for training in various, mainly industrial trades at different levels, taking account of existing facilities; to formulate a comprehensive programme of short-term training to meet immediate needs; to plan the establishment of a new institute for technical skill promotion and to prepare training material and compile equipment lists for the short-term programme and the institute.

Authority: Government request

Duration: July 1967 - 1973 (July 1967 - December 1968 - short term activities; 1969-1973 - long-term activities, not yet in operation)

Estimated cost and source of funds: \$47,600 from UNDP/TA (short-term activities)
\$1,085,000 from UNDP/SF (long-term activities)

VI.B.111

(1967 CR: V.H.6)

ILO

Tunisia - Further training centre, 1967

The purpose of this project was to organize a group centre for further training of workers and technicians employed by the companies in chemical and metallurgy and to formulate proposals for expanding training activities to cope with manpower needs.

Authority: Government request

Duration: 1961-1968 (extension likely)

Estimated cost and

source of funds: \$318,000 from UNDP/TA

VI.B.112
(1967 CR: V.H.6)

ILO

Tunisia - National Institute for Training and Further Training, Rades

The purpose of this project is to assist the Institut National de Formation et de Perfectionnement Professionnels to increase its basic training and further training activities; to organize training activities in undertakings; and to assist in the training and further training of technicians and in the training of women.

Authority: Government request

Duration: 1966 - June 1969

Estimated cost and

source of funds: \$846,300 from UNDP/SF

VI.B.112
(1967 CR: V.H.6)

Turkey - Vocational training in undertakings

The purpose of this project is to organize basic vocational training and further training in undertakings for skilled workers, foremen and technicians in the following trades: foundry, welding, machine tools and general mechanics.

Authority: Government request

Duration: 1964-1970

Estimated cost and

source of funds: \$620,000 from UNDP/TA

Small Industry Extension Training

The Small Industry Extension Training Programme is designed to provide technical assistance and expert advice to small-scale industries with particular reference to the provision of industrial extension services for small-scale industries, training, promotion of industrial investment and perhaps expert opinion.

Authority: IDB, Doc (10/B/20, para. 165)

Duration: September - October 1968

Estimated cost: 1 man-month plus \$300 (staff travel)

UNICEF The following field projects were developed during 1968

			Pre- programme	Experts m/c	Cost \$
V.B.15	Argentina	<u>Small Industry extension methods (68-252)</u>	SIS	3/24	52,000
V.B.16	Brazil	<u>Technical and managerial assistance to small-scale industries (67-226)</u>	SIS	1/1	3,000
V.B.17	Ethiopia	<u>Managerial organization of industrial undertakings (67-105)</u>	SIS	1/0	14,000

C. Industrial estates

V.C.1
(1967 CR: IV.E.2)

UNIDO

* Group training programme on industrial estates, Hyderabad, India

Preparations were completed for holding a group training programme on industrial estates at the Small Industry Extension Training Institute, Hyderabad, India, in co-operation with the Government of India. The programme, organized for twenty English-speaking participants, will be held for twelve weeks from January to March 1969.

Authority: 198, 1968 (10/B/20/Rev.1, para 169)

Duration: 1968-1969

Estimated cost: 2 man-months

VI.B.113
(1967 CR: V.H.5)
V.H.5

ILO

United Arab Republic - Productivity and vocational training project, 1954

The purpose of the project is to train the personnel of the Ministry of Productivity and Vocational Training, Ministry of Industry in various fields: vocational training, management and productivity, so that they can then proceed to continue the work of the international team. The project is increasingly oriented towards consultancy training in the areas of industrial engineering, financial management, marketing and general management.

The team of ILO experts is attached to the Productivity and Vocational Training Department of the Ministry of Industry and is mainly concerned with the activities of this Department. Though services in consultancy and training are given to industrial enterprises all over the country, they are concentrated mainly in Cairo and its surrounding.

Authority: Government request

Duration: 1954-1968 (extension likely)

Source of funds: UNDP/TA

VI.B.114
(1967 CR: V.H.6)

ILO

United Arab Republic - Electric training power institute

The purpose of this project is to assist in the establishment and the initial operation of an electric power training institute in Cairo, including the organization and the implementation of instructor training courses and refresher courses for graduate engineers and other technical staff. The project will also assist in up-grading courses for skilled workers and technicians, and technician training courses. The project includes the electrification of a village as the pilot training unit.

Authority: Egyptian Electricity Corporation

Duration: 4 years; November 1967 - November 1971

Estimated cost and

source of funds: \$762,800 from UNDP/SF

VI.B.115
(1967 CR: V.H.6)

ILO

United Arab Republic - Vocational training institute for industry

The purpose of this project is to assist in the establishment of up-grading courses in: automotive trades, maintenance of plant equipment, tool and die-making, and heat treatment of steel.

Authority: Government request

Duration: 3 years; January 1967 - December 1969

Estimated cost and

source of funds: \$87,000 from UNDP/TA

Uganda - Expansion of the Railway System

The purpose of this project is to improve the railway system in Uganda. It is to be used to transfer stores to various stations and to provide further training in railway personnel including the preparation of local training courses in various repair and maintenance activities; the establishment of a centre for a mobile training unit; the introduction of apprenticeship schemes and the training of apprentices, semi-skilled workers, foremen, inspectors, fitters and fitters and other specialized railway personnel.

Authority: Government request

Duration: 5 years; December 1966 - December 1971

Estimated cost and

source of funds: \$304,500 from UNDP/TA

VI.B.117

110

Interregional programme - Vocational training in the Union of Soviet Socialist Republics

A study tour and concluding seminar were held from May to June 1968 to provide members of Latin American national training institutes with the opportunity to study primarily the organization and methods of industrial training, including training in production, further training in undertakings, utilization of audio-visual aids etc. in the USSR.

Authority: Request by several Latin American countries

Duration: 3 weeks in the USSR, 1 week in Geneva; May - June 1968

Estimated cost and

source of funds: \$55,000 from UNDP/TA

VI.B.118

110

Uruguay - Centro de Perfeccionamiento Técnico (CPT) of the Universidad del Trabajo del Uruguay (UTU)

The purpose of this project was to create a centre for further training of technical staff; to assist UTU in the training of teaching staff for its schools and in the training and advanced training of instructors and supervisors in public and private undertakings (mainly in maintenance, electrical and clothing trades).

Authority: Government request

Duration: 5 years; December 1962 - December 1968

Estimated cost and

source of funds: \$1,005,700 from UNDP/SF

VI.B.119

ILO

Republic of Zambia - Industrial vocational training scheme

The purpose of the project is to assist in the establishment of an industrial vocational training division of the National Council for Technical and Vocational Education and Training. It will also assist in the establishment of two industrial vocational training centres and in the revision and expansion of the apprenticeship system.

Authority: Government request

Duration: March 1968 - December 1968

Estimated cost and

source of funds: \$42,000 from UNDP, IA

VI.B.120

ILO

• Zambia - National industrial vocational training scheme

The purpose of the project is to assist in the establishment of an industrial vocational training division of the National Council for Technical and Vocational Education and Training. It will also assist in the establishment of two industrial vocational training centres and in the revision and expansion of the apprenticeship system.

Authority: Government request

Duration: 5 years; November 1968 - November 1973

Estimated cost and

source of funds: \$1,183,000 from UNDP/SF

VI.B.121

UNESCO

• A micro-experiment in functional literacy instruction

The micro-experiment is limited both in time (nine months) and in space (mining port belonging to the CVRD Company, Iron Mines of Vale do Rio Doce, Brazil).

Its purpose is to devise a methodological model for functional in-plant literacy instruction, integrated with occupational training, socio-economic training and literacy instruction proper.

Duration: 9 months; date of completion November 1968

Estimated cost and

source of funds: \$11,000 from the special Account of voluntary contributions for literacy instruction

VI.B.123 UNESCO

Algeria - Functional literacy, instruction of industrial workers (AL-11)

The project comprises three sub-projects, two of which relate to industrial development, and are undertaken in co-operation with ILO. One of the industrial sub-projects is at Anzew (near Oran) in a large petrochemical complex, the other at Anata (600 km east of Algiers) in a steel complex that is now being established.

The literacy instruction, combined with occupational training, is designed to improve qualifications and productivity of labour.

Duration: 5 years; 1966-1971

Estimated cost and

source of funds: \$1,169,900 UNDP/SF
\$2,990,776 Gov't
\$4,160,676 Total

VI.B.124 UNESCO

Ethiopia - Functional literacy, instruction of industrial workers (ETH-15)

The project comprises four sub-projects, three of which pertain to the agricultural sector and one to the industrial sector. The industrial sub-project, undertaken in co-operation with the ILO, will be carried out in the industrial zone of Akaki Nazareth due south of Addis Ababa. The project involves 5,000 workers employed in various enterprises (textiles, tobacco, food processing etc.).

The literacy instruction will be combined with occupational training and labour safety courses.

Duration: 5 years; 1968-1973

Estimated cost and

source of funds: \$1,521,150 UNDP/SF
\$2,056,800 Gov't
\$3,577,950 Total

VI.B.124 UNESCO

Guinea - Functional literacy, instruction of industrial workers (GUI-10)

The project will deal with both the agricultural and the industrial sector. In-plant literacy instruction, combined with occupational training, will be organized in a number of industrial enterprises at Conakry, in the vegetable and meat preserving plants at Manou and in the steelworks of the Sérédou-Nzérékore region.

After intensified teachers' training, specialized foremen and workers will hold courses to improve labour skills.

Duration: 5 years; 1968-1973

Estimated cost and

source of funds: \$1,192,100 UNDP/SF
\$1,236,000 Gov't
\$2,428,100 Total

VI.B.126

UNESCO

Iran - Functional literacy, instruction of industrial workers (IRA-17)

The project comprises two sub-projects, one of which is for industrial workers. Iran is basically industrial. The industrial project, carried out in co-operation with the ILO, is to be linked to establishing small-scale industries for the processing of agricultural products (sugar refineries, etc.); to modernizing traditional industry (textiles); and to establishing a retail trade complex.

The functional literacy instruction, combined with occupational training, is designed to remedy the shortage of foremen, senior personnel and skilled workers. Thirty-five thousand workers will be involved in this operation.

Duration: 4 years; 1966-1970

Estimated cost and

source of funds: \$1,358,000 UNDP/SF
\$1,532,346 Gov't
\$2,890,346 Total

VI.B.126

UNESCO

Mali - Functional literacy, instruction of industrial workers (MLI-6)

The project will comprise an agricultural and an industrial sub-project. The industrial sub-project, undertaken in co-operation with the ILO, is being carried out at Bamako and will benefit some 5,000 illiterate workers employed in state enterprises (electricity, pottery, transport etc.).

The literacy instruction is combined with occupational training.

Duration: 5 years; 1966-1971

Estimated cost and

source of funds: \$1,177,100 UNDP/SF
\$3,070,012 Gov't
\$4,247,112 Total

VI.B.127

UNESCO

Sudan - Functional literacy, instruction of industrial workers (SUD-27)

The project comprises two sub-projects, one of which is for industrial workers. The industrial sub-project for Khartoum-North, undertaken in co-operation with the ILO, involves some 6,000 workers from various enterprises (electrical, motor mechanic, welding, plumbing, forging etc.).

The literacy course will be combined with occupational training.

The project consists of a preparatory phase (one year), an operational phase (two years) and an expansion phase (four years). Only the first two phases are covered by the operational plan now awaiting approval.

Estimated cost and

source of funds: \$ 519,000 UNDP/SF
\$ 679,925 Gov't
\$1,198,925 Total

Malaysia - Feeding in vocational training centres

The Government of Malaysia has established a residential institute of technology which provides subsidized education and training for industrial and commercial employment. The institute is embarking on a programme of expansion to bring enrolment up from 2,350 to 4,500 residential students within the next five years, during which WFP assistance will help to provide the students with an adequate diet.

Duration: 5 years; became operational October 1968

Estimated cost: \$1,514,000

VI.B.129

WFP

Malaysia - Training for industrial and commercial employment

The National Service of Apprenticeship and Industrial Work (SENATI) trains unskilled workers in trade and industrial skills. Training of both apprentices and adult workers is currently undertaken at a centre near Lima; two other centres are to be ready to receive trainees by the end of 1968.

Duration: 5 years; became operational April 1968

Estimated cost: \$984,500

VI.B.130

WFP

Peru - Feeding in vocational training centre (SENATI)

The National Service of Apprenticeship and Industrial Work (SENATI) trains unskilled workers in trade and industrial skills. Training of both apprentices and adult workers is currently undertaken at a centre near Lima; two other centres are to be ready to receive trainees by the end of 1968.

WFP will supplement local food supplies with a total of 926,276 daily rations to be provided over a period of three years to the trainees. SENATI will charge only 5 sols per meal (the normal charge is 15 sols). Sales proceeds will be used to help the Government to provide subsidized food to the trainees after the termination of the project.

Duration: 3 years; became operational June 1968

Estimated cost: \$177,700

VI. C. Quality and maintenance of skilled labour

- VI.C.1 FAO India - Central region and southern states, 1966-1971
(For description see chapter XX.2)
- VI.C.2 UNESCO Republic of Korea - Fine Instruments Centre, Seoul
This project is designed to train technicians in manufacturing and servicing of scientific instruments, and to improve the level of skills of craftsmen already employed in such work.
Duration: 5 years; 1956-1971
Estimated cost and source of funds: \$1,054,500 UNDP/SF allocation
 \$ 804,300 Gov't contribution
 \$7,858,800 Total
- VI.C.3 WFP Chile - Training centres for skilled labourers
The National Institute of Vocational Training is conducting a long-term programme of accelerated training of skilled labour. The trainees come from low-income groups and need an improved diet to increase their powers of concentration and working capacity. WFP is providing food distribution in the form of meals (10,137,000 rations to 93,000 trainees over five years at sixteen vocational training centres).
Duration: 5 years; became operational June 1968
Estimated cost: \$825,000

D. Training of foremen and supervisory staff

- VI.D.1 FAO Chile - Institute of Food Science and Technology, Santiago
(For description see chapter XX.23)
- VI.D.2 UNESCO India - National Institute of Foundry and Forge Technology at Ranchi, Bihar
This Institute provides specialized training facilities in foundry and forge technology for foremen, technical instructors, technicians and engineers.
Duration: 5 years; 1965-1971
Estimated cost and source of funds: \$870,300 UNDP/SF allocation
 \$1,580,500 Gov't contribution
 \$2,450,800 Total



16.7.74

V.C.3
(1967 CR: IV.E.1)

UNIDO

Industrial Estates in Europe and the Middle East

The English version of this publication (ID 4; Sales No. 68.11.5.1) was issued in 1968. It contains the reports of the Consultative Groups on Industrial Estates and Industrial Areas held, respectively, in Geneva and Beirut in October - November 1966, and studies of industrial estate plans and projects in some European and other countries. It deals with such subjects as: the role of industrial zones, areas and nuclei in the development policies and programmes of Italy, with special reference to the promotion of small-scale industries; the role of industrial estates, areas and zones in providing an industrial base in urban and regional development plans; pre-project planning for industrial estates; public and private financing of industrial estate projects and stimulation of private projects by Government authorities, with special reference to India's experience; United Nations activities in the field of industrial estates; and, as an annex, a study of research parks in the United States: a case study from Colorado.

Authority: ECOSOC (E/C.5/110, para. 162); IDB, 1967 (ID/B/3, page 146; ID/B/4, Table 23, page 139)

Duration: First half of 1968

Estimated cost: \$5,000

UNIDO

The following field projects were developed during 1968

			<u>Pro-</u> <u>gramme</u>	<u>Experts</u> <u>m/m</u>	<u>Cost</u>
V.C.4	Brazil	<u>Development of industrial estates (27-59)</u>	TA	1/10	17,500
V.C.5	Brazil	<u>Selecting sites for industrial parks (68-312)</u>	SIS	1/6	11,000
V.C.6	Cameroon	<u>Establishment of a pilot industrial estate (67-233)</u>	SIS	1/12 (1/6 fellows)	27,600
V.C.7	Ecuador	<u>Planning of industrial estates (67-101)</u>	SIS	1/6	14,000

			Pro- gramme	Experts m/m	Cost	
V.C.8	Iran	<u>Establishment of an industrial estate, Ahwaz, (IRA-11)</u>	SF	6/67 (2/9 (fellows)	UNDP Gov't Total	701,100 <u>3,149,300</u> 3,850,400
V.C.9	Kenya	<u>Management of industrial estate, training programme, (IK-536)</u>	REG	1/12 (fellows)		15,000
V.C.10	Madagascar	<u>Development of small-scale industry and establishment of industrial estates (67-149)</u>	SIS	1/1½		4,000
V.C.11	Morocco	<u>Feasibility of a pilot industrial estate (ID-82)</u>	REG	1/2		3,800
V.C.12	Niger	<u>Establishment of pilot industrial estate (67-251)</u>	SIS	1/2		5,000
V.C.13	Nigeria	<u>Development of industrial estates (ID-548)</u>	REG	2/9		17,000
V.C.14	Philippines	<u>Evaluation of specific investment proposals related to industrial estate project (67-253)</u>	SIS	2/4		12,000
V.C.15	Senegal	<u>Transformation of military installations into an industrial estate (67-184)</u>	SIS	1/12 (fellows)		32,000
V.C.16	Thailand	<u>Feasibility of establishing an industrial estate (66-35)</u>	SIS	2/12		30,000
V.C.17	Turkey	<u>Small industries development programme and industrial estate, Gaziantep (TUR-25)</u>	SF	4/24 (2/12 (fellows)	UNDP Gov't Total	962,800 <u>1,240,000</u> 2,202,800
V.C.18	Uganda	<u>Development of small-scale industries and industrial estates, Kampala (UGA-7)</u>	SF	4/20	UNDP Gov't Total	746,400 <u>1,114,995</u> 1,861,395
V.C.19	Upper Volta	<u>Establishment of a pilot industrial estate (68-280)</u>	SIS	1/2		5,000
V.C.20	Viet-Nam (Rep.of)	<u>Development of industrial estates (232-67)</u>	TA	1/12		23,100
V.C.21	Yugoslavia	<u>Fellowships in small-scale industries and industrial estates (ID-300)</u>	REG	3/8		3,200

V. Financing of small-scale industries

V.D.1
(1967 CR: IV.A.20)

110

Republic of Korea - Extension Services Department in the Medium Industry Bank

The purpose of this project is to assist in the establishment and gradual expansion of an Extension Services Department of the Medium Industry Bank, to provide management and technical consulting services for the promotion of small and medium-scale industries in the Republic of Korea.

The type of expertise to be provided will be in the areas of general management, production management, financial management/cost accounting, production engineering, marketing management and personnel management. Assistance will also be rendered in metal-working and foundry practices. As provision exists for subcontract consultants, expertise for specific industries might also be provided if they gradually constitute a large enough group of clients of the Bank.

Authority: Government request

Duration: 4 years; August 1967 - continuing

Estimated cost and

source of funds: \$776,700 UNDP/SF allocation

1516,678 Gov't counterpart contribution

\$1,293,378 Total

V.D.2

UNIDO

Studies for the Interregional Symposium on Financing of Small-scale Industries, 1969

The following three studies were prepared in 1968 for presentation to the Interregional Symposium on Financing of Small-scale Industries to be organized by UNIDO in 1969:

- (a) Leasing societies for procurement of machinery and equipment and mutual co-operation societies for joint financing of small-scale industries: the experience of some European countries

The study discusses the objectives, operations and advantages of leasing and mutual co-operation societies in France and some other European countries. It contains conclusions and recommendations applicable to development programmes for small-scale industries in developing countries.

Authority: IDB, 1968 (10/B/26, para. 194)

Duration: September - October 1968

Estimated cost and

source of funds: \$3,000 from Consultant Funds

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(b) Commercial banks: financing of small-scale industries: policies and measures

The study discusses the role of commercial banks in the financing of small-scale industry on the basis of the experience in a number of countries; developed and developing. It examines the financial structures in developing countries; the credit policies of commercial banks with respect to small-scale industries, including purposes for which loans are made, terms and conditions, guarantees and costs; the actual experience of a number of commercial banks; and government policies in selected countries. The paper provides conclusions on the measures and techniques that could increase the volume of resources available within the commercial bank system and make them available for lending to small-scale industries.

Authority: IDB, 1968 (ID/B/26, para 194)

Duration: July - August 1968

Estimated cost and

source of funds: \$3,000 from Consultant Funds

(c) Public and semi-public financing of small-scale industries: a comparative analysis of institutions, policies and measures in Asian countries

The study contains a comparative analysis of policies and measures adopted by public and semi-public financial institutions providing long, medium and short-term credit to small-scale industries in China, India, Japan, Malaysia, Pakistan, the Philippines and Thailand. The study includes conclusions and recommendations applicable to developing countries.

Authority: IDB, 1968 (ID/B/26, para 194)

Duration: September - October 1968

Estimated cost and

source of funds: \$3,150 from Consultant Funds

F. Technologies for small-scale industries

V.E.1

UNIDO

Small-scale manufacturing, No. 2: Sewing machines

The above study was prepared in 1968 as the second in a series of studies on the contribution of small-scale industries to the production of selected consumer and producer goods. The study provides an analysis of the specifications and of the manufacturing processes of each part and component. It also discusses methods for organizing the production of sewing

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L. Training of technicians

VI.E.1
(1967/68: I.A.28)

ILO

Morocco - National Institute for Leather and Textile

This project is a follow-up and phase II of a previous ILO/UNDP(SF) project. The purpose of this project is to provide the Government with further assistance to ensure consolidation and extension of the activities of the institute, created under UNDP/SF, and to undertake complementary activities such as the provision of more highly-qualified manpower to undertakings in the public and private sectors, and placing at their disposal an institute capable of providing advice on their problems and which can act as a research and control laboratory at the same time.

The Institute aims at covering all needs on national scale, at providing medium and high-level training in leather and textiles techniques and at supplying qualified technicians for national enterprises.

Authority: Government request

Duration: Initiated 1 January 1968 - completion 31 December 1969. Follow-up foreseen with reduced number of experts under IA 1970/71 programme or other sources of financing, plan of operation under negotiation

Estimated cost and source of funds: \$279,100 from UNDP/SF allocation

VI.E.2

UNESCO

Regional Seminar on the Training of Higher and Middle-level Technical Personnel in Africa within the Framework of National Education Systems

The Regional Seminar held at the Faculty of Engineering, University of Lagos, Nigeria, from 30 September to 5 October 1968 provided opportunity for an exchange of information on the training of engineers and technicians in Africa.

Duration: 30 September - 5 October 1968

Estimated cost and source of funds: \$14,000 from UNESCO regular programme

VI.E.3

UNESCO

Cambodia - National Hydraulics Laboratory

This is a four-year project with the objective of providing practical training of personnel in the hydraulics of river and river control structures.

Duration: 4 years; 1968-1971

Estimated cost and source of funds:

\$943,407	UNDP/SF allocation
\$400,957	Gov't contribution
\$1,344,364	Total

VI.6.10

UNESCO

Colombia - Industrial University of Santafé, Bogotá (COL-9)

The purpose of the project is to expand and improve the existing University of Santafé, aiming at upgrading the quality of instruction, curricula and research.

The first phase of this project started its operation in December 1961 and was terminated in August 1966. The assistance for the first phase consisted of: 5581 man-months of expert services in thirteen different specializations (including ten man-months of consultant services), 131 man-months of fellowships in various specialities and \$499,925 for laboratory equipment and publications.

The second phase runs from August 1968 to June 1970 (fellowship studies terminating in 1972). The second phase of the project, aiming at establishing post-graduate study courses and research in the field of chemical engineering, will provide an assistance of 60 man-months of expert services and \$68,575 for laboratory equipment and publications.

Duration: 1962-1972 (project with two phases)

Estimated cost and

source of funds: \$1,826,995 UNDP/SF allocation
\$5,633,770 Gov't contribution
\$7,459,765 Total

VI.6.11

UNESCO

Colombia - School of Engineering, National University, Bogotá (COL-8)

The purpose of the project is to expand and improve the existing institution in the Department of Civil Engineering of the School of Engineering designed to raise academic standards and to increase the number of engineering graduates.

The assistance consists of: 192 man-months of expert services in six different specializations, 138 man-months of fellowships in various specializations and \$175,000 for laboratory equipment and publications.

Duration: 7 years: May 1964 - June 1970

Estimated cost and

source of funds: \$650,626 UNDP/SI allocation
\$1,345,250 Gov't contribution
\$1,995,876 Total

VI.G.11

UNESCO

Democratic Republic of the Congo - National Mining Institute, (K-5)

This Institute trains practical engineers in mining, geology and prospecting.

Upon government request, UNESCO prepared a draft request for the second phase of the project, dealing mainly with the training of national counterparts.

Duration: 4 years; 1964-1969

Estimated cost and

source of funds: \$1,635,000 UNDP/SF allocation
\$5,774,000 Gov't contribution
\$7,409,000 Total

VI.G.13

UNESCO

Cuba - Faculty of Technology, University of Havana (CUB-2)

The purpose of the project is to assist the Government in its plans to strengthen and expand the Faculty of Technology of the University of Havana by supplying equipment, awarding fellowships and sending experts to raise the technical level of education, to introduce new fields of study and to train the teaching staff.

Duration: October 1966-1971

Estimated cost and

source of funds: \$1,927,300 UNDP/SF allocation
\$177,900 Gov't contribution (toward local operating costs)
\$23,473,500 US Gov't counterpart contribution (in kind)

VI.G.14

UNESCO

Dominican Republic - Faculty of Engineering, Madre y Maestra University, Santiago de los Caballeros, (DOM-7)

The courses offered by the Faculty of Engineering will be in mechanical and electrical engineering. It is planned that 30 students will graduate from the Faculty every year. The project was started in September 1968.

Duration: 5 years; 1968-1973

Estimated cost and

source of funds: \$932,500 UNDP/SF allocation
\$1,858,100 Gov't counterpart contribution

VI.G.15

UNESCO

Ecuador - National Polytechnic School, Quito

The purpose of the project was to enable the National Polytechnic School to establish a Mechanical Engineering Department and to offer specialized courses in science and technology for secondary school teachers.

The assistance consists of: 440 man-months of expert services in fourteen different specializations (including 10 man-months of consultant services), 284 man-months of fellowships in various specializations, and \$555,000 for laboratory equipment and publications.

Duration: 6½ years; March 1962 - December 1968 (an 18-month extension of the project has been requested)

Estimated cost and source of funds:

\$1,623,643	UNDP/SF allocation
<u>\$2,520,210</u>	Gov't contribution
\$4,143,853	Total

VI.G.16

UNESCO

Guinea - Polytechnic Institute of Conakry

Six UNESCO/UNEP posts, i.e. Director of Studies, and five professors in the fields of engineering, have been provided at the Polytechnic Institute of Conakry. The posts are expected to continue until 1970.

Duration: 1968-1970.

Estimated cost and source of funds: \$453,600 UNEP/TA

VI.G.17

UNESCO

India - Assistance to six regional engineering colleges

The purpose of this project is to implement, develop and improve the programme of instruction at the regional engineering colleges located at Bangalore, Nagpur, Bhopal, Jamshedpur, Allahabad and Durgapur.

Duration: 3 years; 1966-1969

Estimated cost and source of funds:

\$2,233,000	UNDP/SF allocation
<u>\$14,655,300</u>	Gov't contribution
\$16,888,300	Total

Kenya - Faculty of Engineering, University College, Nairobi
(K11-1)

This project has been concerned with the expansion of the Faculty of Engineering for training additional professors and engineers to meet the needs of East Africa in industry, construction and research.

Duration: 3 years; 1967-1968. (The Governing Council will consider a second phase request from the Government of Kenya during its January 1969 session. The second phase is planned to run from January 1969 to December 1971.)

Estimated cost and
source of funds: \$728,468 UNDP/SF allocation
\$2,479,542 Gov't contribution
\$3,208,010 Total

VI.G.19

UNESCO

Libya - College of Advanced Technology

The purpose of this project is to train university-level graduates in mechanical, civil and electrical engineering, and in food technology.

Duration: 7 years; 1961-1968

Estimated cost and
source of funds: \$1,140,246 UNDP/SF allocation
\$6,779,643 Gov't contribution
\$7,919,889 Total

VI.G.20

UNESCO

Malaysia - Faculty of Engineering, University of Malaya, Kuala Lumpur

The purpose of this project is to improve the training facilities and to raise the level and quality of instruction in civil, electrical and mechanical engineering at the Faculty of Engineering.

Duration: 5 years; 1966-1971

Estimated cost and
source of funds: \$798,000 UNDP/SF allocation
\$2,188,600 Gov't contribution
\$2,986,600 Total

VI.G.21

UNESCO

Malta - Malta Polytechnic Institute

The aim of this project is to establish an engineering department within the Malta College of Art, Science and Technology, with the purpose of training engineers and technicians.

Duration: 8 years; 1961-1969

Estimated cost and

source of funds: \$695,100 UNDP/CF allocation
\$3,600,034 Gov't contribution
\$4,295,134 Total

VI.G.22

UNESCO

Mexico - National Centre for Technical Teacher Training, Mexico City (MEX-5)

Many engineers and highly specialized technicians in various technical fields graduated from the Centre and joined different industries and technical training institutes in Mexico.

Duration: March 1963 - March 1968

Estimated cost and

source of funds: \$937,225 UNDP/SF contribution (for expert services, equipment and fellowships);
\$6,082,055 Gov't contribution

VI.G.23

UNESCO

Nigeria - Faculty of Engineering, University of Lagos (NIR-17)

The purpose of this project is to assist the University of Lagos in the expansion of the Faculty of Engineering for the training of civil, electrical and mechanical engineers.

Duration: 5 years; 1964-1969 (an amendment to extend this project for an additional year is under preparation; this may lead to a second phase up to July 1970)

Estimated cost and

source of funds: \$1,160,750 UNDP/SF allocation
\$5,358,500 Gov't contribution
\$6,519,250 Total

VI.G.24

UNESCO

Peru - School of Technology, National University of Engineering, Lima (PER-16)

The School of Technology offers specialized courses in: mechanical engineering technology (production or power plants), electrical engineering, electronics and chemical engineering. A Department for Textile Engineering has been added to the project.

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VI.6.24
(cont'd)

UNESCO

In the four-year courses, patterned on the "sandwich" system the students spend alternate semesters at the school and in industry. The student enrollment is 35%. The first graduates from the School were immediately absorbed by the different industries in Peru.

Duration: July 1963 - December 1969

Estimated cost and

source of funds: \$1,374,778 UNDP/SF contribution
\$2,856,136 Gov't contribution

VI.6.25

UNESCO

Romania - Polytechnic Institute, Bucharest

The purpose of the project is primarily to provide training facilities in three new disciplines within the existing Faculties of the Polytechnic Institute: information theory and data processing, high voltage techniques and solid state mechanics.

Duration: 4 years

Estimated cost and

source of funds: \$962,000 UNDP/SF allocation.
\$2,800,000 Gov't contribution (approx)

VI.6.26

UNESCO

Spain - Higher Mining Engineering School, Oviedo

The purpose of this project is to assist the Government in strengthening and expanding the undergraduate programme of the Higher Mining Engineering School, and to establish there a post-graduate school of engineering education.

Duration: 5 years; 1967-1972

Estimated cost and

source of funds: \$1,331,000 UNDP/SF allocation
\$2,766,567 Gov't contribution (in kind)
\$4,097,567 total

VI.6.27

UNESCO

Swedia - Technological Institute, Danaross

This institute trains physical, mechanical, production and electrical engineers to meet the needs of local industry and public services.

Duration: 5 years; 1963-1969

Estimated cost and

source of funds: \$1,223,700 UNDP/SF allocation
\$2,350,200 Gov't contribution
\$3,582,900 Total

- VI.6.28 UNF500 Syria - Faculty of Engineering, University of Damascus
(training of engineers at the University of Damascus)
This Faculty provides for the training of civil engineers.
Duration: 5 years; 1964-1969
Estimated cost and
source of funds: \$363,000 UNDP/SF allocation
\$2,972,900 Gov't contribution
\$3,835,900 Total
- VI.6.29 UNESCO Trinidad and Tobago - Faculty of Engineering, University
of the West Indies (REG-26)
The purpose of the project was to establish a Faculty of
Engineering for training civil, chemical, mechanical and
electrical engineers. Highly satisfactory results have been
achieved.
Under UNDP/SF/UNESCO contribution, 197 man-months of expert
services, 30 man-months for fellowships and more than \$640,000
for equipment were supplied.
Duration: August 1960 - June 1968
Estimated cost and
source of funds: \$1,380,352 UNDP/SF/UNESCO
\$1,443,254 Gov't contribution through
University
\$1,354,000 Contribution of other agencies for
buildings
- VI.6.30 UNESCO Turkey - Faculty of Engineering, Middle East Technical
University, Ankara
The purpose of this project is to train chemical, electrical,
mechanical and mining engineers at the Faculty of Engineering.
Duration: 5 years; 1965-1970
Estimated cost and
source of funds: \$1,652,550 UNDP/SF allocation
\$4,851,000 Gov't contribution
\$6,503,550 Total

Venezuela - School of Industrial Engineering, Central University, Caracas (11-3)

The objectives of the project are to expand and improve the level of the departments of chemical, electrical and mechanical engineering. The operation started in April 1964. Thirteen experts have served on this programme; five are at the duty station at present. In 1968, 131 students graduated.

Duration: 5 years; 1964-1969

Estimated cost and

source of funds: \$1,281,400 UNDP/SF contribution

\$8,772,000 Gov't contribution

\$10,053,400 Total

H. Post-graduate training of engineers, including in-plant training

VI.H.1

ECAFE

Training in petroleum development, NIOC, Iran

The purpose of this project is to arrange for on-the-job and in-service training in various specialized fields in the development of petroleum resources for personnel from countries of the region. This project is implemented in co-ordination with the National Iranian Oil Company (NIOC) which takes in the trainees. Over 113 trainees have attended the training courses provided by NIOC.

Authority: First ECAFE Symposium on the Development of Petroleum Resources of Asia and the Far East, 1958; Committee on Industry and Natural Resources, fifteenth session, 1963; ECAFE, nineteenth session, 1963

Duration: Continuing project

Source of funds: Oil provides for cost of travel and subsistence of trainees.

VI.H.2

ECAFE

Training in petrochemical industries

(For description see chapter XVII.2)

VI.H.3

FAO

India - Establishment of four logging training centres

(For description see chapter XXIV.27)

VI.H.4

FAO

India - Fisheries Training Institute, Bombay

(For description see chapter XXI.18)

VI.0.5

FAO

Turkey - Research and training centre for the production, processing and marketing of fruit and vegetable
(For description see Chapter VI.0.5)

VI.0.6

UNESCO

Post-graduate training courses in the engineering education field

Six courses have been held in 1968:

Post-graduate Training Course on Petroleum Technology and Petrochemistry (in English), Enrico Mattei School, Milan, Italy.

Estimated cost and source of funds: \$3,500 UNESCO

Post-graduate Training Course on Automation (in Spanish), Faculty of Electricity and Automation, University of Madrid, Spain.

Estimated cost and source of funds: \$5,000 UNESCO

Post-graduate Training Course in Chemical Engineering and Physical Chemistry (in English), Tokyo Institute of Technology, Japan.

Estimated cost and source of funds: \$10,000 UNESCO

Post-graduate Training Course in Chemical Engineering and Physical Chemistry (in German), Technical University of Karlsruhe, Federal Republic of Germany.

Estimated cost and source of funds: \$5,000 UNESCO

Post-graduate Training Course in Metallurgy, Institute of Nuclear Energy of Buenos Aires, Argentina.

Estimated cost and source of funds: \$5,000 UNESCO

Post-graduate Training Course in Petroleum Technology and Petroleum Refining (in French), Petroleum Institute, Bucharest, Romania.

Estimated cost and source of funds: \$9,000 UNESCO

Duration: 1968

VI.H.7

UNIDO

Mexico - Centre of training for graduate engineers and professors of engineering, science and technology, Mexico City (MEX-13)

At Government request UNIDO is co-operating in an educational programme granting advanced degrees in science and technology. The objective is to meet the needs in Mexico for engineering professors with advanced status and to train research personnel. By July 1968 ten experts were at the duty station. The award of the first Master's degrees in engineering under this programme is expected in 1969.

Duration: October 1967-1971

Estimated cost and

source of funds: \$1,742,250 UNDP/SF allocation
\$ 164,000 Gov't contribution (towards local operating costs)
\$7,035,500 Gov't counterpart contribution (in kind)

VI.H.8

UNIDO

Training Manual

A training manual for the textile industry, prepared in 1967, was issued in 1968.

Authority: IDB, 1968 (ID/B/20/Rev. 1, para. 166)

Duration: Published in 1968

Estimated cost: \$4,700

VI.H.9

UNIDO

In-plant on-site training programme - cement industry, Denmark

An in-plant training programme in the cement industry was conducted in Denmark with seventeen participants from developing countries.

Authority: IDB, 1968 (ID/B/20/Rev. 1, para. 159)

Duration: 2½ months

Estimated cost: \$75,000

VI.H.10

UNIDO

In-plant on-site training programme - diesel engines, CSSR

An in-plant training programme in the field of diesel engines was conducted in the CSSR with 21 participants from developing countries.

Authority: IDB, 1968 (ID/B/20/Rev. 1, para. 159)

Duration: 3 months

Estimated cost: \$28,000

VI.E.4

UNESCO

Democratic Republic of Congo - National Institute for Training and Public Works, Kinshasa

This Institute provides training at higher levels, primarily for the public services.

A request for an extension of this project into a second phase is in preparation and will concern the training of national counterparts.

Duration: 6 years; 1963-1969

Estimated cost and source of funds:
\$1,256,000 UNDP/SF allocation
\$4,422,000 Gov't contribution
\$5,678,000 Total

VI.E.5

UNESCO

Iraq - Technical Training Institute, Baghdad

The purpose of this project is to establish an institute, at post-secondary school level, to train technicians for industry and government services, as well as teachers for vocational and technical schools.

Duration: 8 years; 1961-1968

Estimated cost and source of funds:
\$1,158,963 UNDP/SF allocation
\$4,018,667 Gov't contribution
\$5,177,630 Total

VI.E.6

UNESCO

Ivory Coast - Consultant mission on higher technical education

Under the Programme of Participation in the activities of member states, a one-man advisory consultant mission visited Ivory Coast for four months in 1968 to advise the Government on the training of technicians in the country.

Duration: 4 months; 1968

Estimated cost and source of funds: \$7,660 from Participation Programme

- VI.H.11 UNIDO In-plant group training programme - electrical industries, Sweden
An in-plant training programme in the electrical industries was conducted in Sweden in 1968 with 20 participants from developing countries.
Authority: IDB, 1968 (ID/B/20/Rev. 1, para. 159)
Duration: 4 months
Estimated cost: \$28,000
- VI.H.12 UNIDO In-plant group training programme - iron and steel, USSR
An in-plant training programme in the iron and steel industry was conducted in the USSR with 41 participants from developing countries.
Authority: IDB, 1968 (ID/B/20/Rev. 1, para. 159)
Duration: 5 months
Estimated cost: \$150,000
- VI.H.13 UNIDO In-plant group training programme - textile industry, Poland
An in-plant training programme in the textile industry was conducted in Poland with fifteen participants from developing countries.
Authority: IDB, 1968 (ID/B/20/Rev. 1, para. 159)
Duration: 6 months
Estimated cost: \$23,000
- VI.H.14 UNIDO In-plant group training programme - mechanical industries, Japan
An in-plant training programme in the mechanical industries was conducted with twelve participants from developing countries.
Authority: IDB, 1968 (ID/B/20/Rev. 1, para. 159)
Duration: 10 weeks
Estimated cost: \$10,000

VI.100 The following field projects were developed during 1968

		Pro- gramme	Experts m/m	Cost \$
VI.9.15	Iran	<u>Organizing in-plant training programmes (ID-272)</u>	REC 2/6 (2/12 fellows)	14,500
VI.9.16	Turkey	<u>In-plant training centre for engineers, Kirikkale (TUR-29)</u>	GF UNDP Gov't	1,420,300 <u>3,000,000</u> Total <u>4,420,300</u>

I. Management training

- VI.1.1 ECA Seminar on the management of public enterprises
 ECA organized a Seminar on the Management of Public Enterprises in Bizerte from 9 to 20 December 1968, to study the many new problems arising from the control and management of public enterprises in African countries at the national and local levels and to exchange experiences. ILO, UNIDO and IULA participated in the Seminar.
Duration: 1968 - continuing
- VI.1.2 ECE Seminar on Management, Maintenance and Modernization of Housing
 (For description see chapter XIV.16)
- VI.1.3 (1967 CR: V.B.5) ILO Bulgaria - Management training centre for engineers and economists
 The purpose of this project is to establish a management training centre for the development and practical training of directors, managers, functional specialists and supervisors from different sectors of the Bulgarian economy. Along with Hungary and Romania, Bulgaria intends to increase the use of computers in the country as a means to improve efficiency and obtain optimum production output. The Centre will serve as a training ground in computer applications for managers and technicians after the ICT computer, financed by UNDP, is installed in April 1969. UNDP will finance the purchase and installation of this equipment up to \$690,000.

VI.1.3
(cont'd)

ILO

Centres will be opened in other key industrial sites throughout Bulgaria. At present one branch has been opened at Ruse; it is planned that branches will be opened in 1969 in Varna, Burgas and Plovdiv.

Authority: Government request

Duration: 5 years; 1966-1971

Estimated cost and

source of funds: Financed by UNDP with authorized budget of \$2,323,100 including executing agency overhead costs

VI.1.4
(1967 CR: V.B.7)

ILO

Ceylon - Management Development and Productivity Centre, Colombo

The purpose of the project is to assist in the establishment of a Management Development and Productivity Centre with the following principal objectives:

- Creation of productivity consciousness in the public and private sectors and in large, medium and small-scale industries by the dissemination of knowledge of modern management practices;
- The training of personnel at top and middle levels of management and first-line supervisors, foremen and trade union workers by imparting both the knowledge and the skills as required at each level of activity;
- The development of personnel to cater to the increasing needs of the economy in these fields of management development and productivity in co-operation with universities and other institutions.

Over the five-year period it will train a large body of professionally enlightened managers at top, middle and supervisory levels. It will also maintain close working relationship with the colleges running business administration programmes.

It will initially confine its activities to industries in and around Colombo and later spread itself to other areas where industrial concentrations are likely to grow. The expertise to be provided include general management, financial management/management accounting, marketing and sales management, personnel management and advanced supervisory training.

Authority: Government request

Duration: 5 years; 3 July 1967 - 3 July 1972

Estimated cost and

source of funds: \$1,985,900 UNDP/SF allocation (consisting of UNDP/SF contribution \$1,838,500 and Gov't contribution \$147,400)
\$4,307,867 Gov't counterpart contribution

Ethiopia - Management and Entrepreneurship training and advisory centre, Addis Ababa

The purpose of this project is to assist the Government of Ethiopia in establishing a management and entrepreneurship training and advisory centre in Addis Ababa which will work towards the following objectives: the development of national professional staff so that they may continue to increase the capacity and ability of the centre to achieve these objectives after the project personnel has been withdrawn, and the development and promotion of small enterprises and indigenous Ethiopian entrepreneurs.

The centre will provide training and development services, advisory and consulting services, a development workshop, promotional services, research and evaluation and administrative services. These services will also cover the fields of general management, including the principles practices and concepts of: entrepreneurship, business and management, management accounting and financial management, industrial and production engineering and marketing and sales.

Authority: Government request

Duration: 5 years; August 1968-1973

Estimated cost and

source of funds: \$342,000 UNDP/SF allocation (consisting of
\$841,600 UNDP/SF contribution and
\$100,400 Gov't contribution)
\$470,712 Gov't counterpart contribution
(in kind)

VI.1.6
(1967 CR: V.A.9)

110

Ghana - Management development and productivity institute

The purpose of the project is to establish a management development institute to provide training in management, research and advisory services in productivity to public and private enterprises and to other organizations in need of such assistance. The main activities of the institute will be the training and development of managers, entrepreneurs, supervisors and functional staff and the improvement of productivity through basic research and consultancy advisory services at the plant level. The activities of this project will be coordinated with those of the UNDP/IN/IDC project for managerial services to Ghana state-owned enterprises.

Authority: Government request

Duration: 5 years; 1968-1973

Estimated cost and

source of funds: \$894,200 UNDP/SF allocation (consisting of
\$788,400 UNDP/SF contribution and
\$105,800 Gov't contribution)
\$461,715 Gov't counterpart contribution
(in kind)

VI.1.7
(1967 CR: V.B.10)

II

India - National Institute for Industrial Engineering Training

The purpose of this project is to provide, with a permanent institution for training actual and future managers on top and middle-management level as well as providing technical assistance and in-plant training to various enterprises in all economic sectors.

Authority: Government request

Duration: 1967-1977

Estimated cost and

source of funds: \$1,568,700 from UNDP/SF allocation

VI.1.8
(1967 CR: V.B.29)

ILO

Hungary - National management development centre, Budapest

The purpose of this project is to assist the Government to establish a national management development centre in Budapest for the improvement of management in industrial enterprises.

The basic activities of the centre will be: training of general managers and assistant managers of enterprises and trusts and of likely candidates for such positions; training of specialists in different management fields; research and experimental work; and establishment of an information service and a consultancy service to industry.

Authority: Government request

Duration: 3 years; 14 May 1968 - 14 May 1971

Estimated cost and

source of funds: \$1,449,800 UNDP/SF allocation (consisting of \$1,381,200 UNDP/SF contribution and \$68,600 Gov't contribution)
\$4,442,334 Gov't counterpart contribution

VI.1.9
(1967 CR: V.B.11)

ILO

India - National Institute for Training in Industrial Engineering

The purpose of this institute is to train suitably qualified persons from industry in the public and private sectors and other technical institutions in industrial engineering subjects to enable them to practise the techniques in their respective fields of operation and/or to train others; to establish standards of instruction in industrial engineering subjects (e.g. syllabi, equipment, duration of courses and methods of training); to devise suitable training courses for instruction in industrial engineering subjects for the Institute and other bodies concerned with training in industrial engineering; and to conduct applied research in industrial engineering to adapt basic techniques to the needs of Indian industries.

VI.1.9
(cont'd)

ILO

It is essentially a middle management institution in as much as it runs courses in specific industrial engineering techniques like work study, M.T.M. production planning and control, planned preventive maintenance etc. Expertise in general management marketing management and personnel management are also provided for in order to emphasize the importance of these fields to the industrial engineer, who is often a potential candidate for a line-management position.

Authority: Government request

Duration: July 1963 - June 1969

Estimated cost and

source of funds: \$774,400 UNDP/SF allocation
\$1,568,000 Gov't counterpart contribution
(in kind)
\$2,342,400 Total

VI.1.10
(1967 CR: V.B.13)

ILO

Iran - Management development and supervisory training, Isfahan

The purpose of this project was to assist the Government in expanding the activities of the Industrial Management Institute in the fields of management development and supervisory training.

The project was implemented through such practical activities as courses and seminars, in-plant training and follow-up consultancy and advisory services. Special attention was paid to the training of national counterparts both in the institute and abroad.

The activities of the project were mainly concentrated in Isfahan and its surrounding. Efforts are made to extend them to the provincial centres and a request to UNDP/SF has been submitted by the Government for technical assistance in implementation of a new project called "Management Development and Supervisory Training in Provincial Centres". During the past year, the project covered also technical assistance to small-scale industries and a team of four experts in small business had been assigned to the project for this purpose.

Authority: Government request

Duration: November 1963 - 31 December 1968

Estimated cost and

source of funds: \$1,055,200 UNDP/SF allocation
\$ 730,500 Gov't counterpart contribution
\$1,785,700 Total

VI.1.11
(1967 PR: V.R.14)

ILO

Iraq - Management Development and Supervisory Training Centre,
Baghdad (Phase II)

The purpose of this centre is to give additional assistance to the Government in establishing the Management Development and Supervisory Training Centre in Baghdad, and in intensifying and extending the programme of training and advisory services provided by the Centre.

The activities of the project cover the whole country providing training and consultancy services in the field of management. The project has had a considerable impact on the industrial development of the country. The productivity has been raised in existing industrial enterprises and some assistance has also been provided in organizing new enterprises. The Government intends to follow up the present project by a project for consultants' training, possibly with a small IDP component. A request for technical assistance of UNDP/SF in the implementation of the project is being prepared by the Government.

Authority: Government request

Duration: 1 January 1967 - 31 December 1969, (Phase I project November 1961 - 31 December 1966)

Estimated cost and

source of funds: Phase II - \$720,000 UNDP/SF contribution
\$800,000 Gov't counterpart contribution
\$1,520,000 Total

VI.1.12

ILO

Jordan - Centre of Industrial Development, Management
Development Department

The purpose of this project is to assist the Government in establishing a Centre of Industrial Development. ILO is responsible for the Centre's programme regarding the development of management skills and the improvement of productivity in industry.

The Management Development Department is a part of a project for which UNIDO is the participating and executing agency. There is close co-operation between UNIDO and ILO in the implementation of the project.

The activities of the project cover the whole country. Technical assistance is being provided in several fields of management development, such as industrial engineering, production engineering, cost accounting, marketing and general management, through courses, seminars, consultancy and advisory services, and follow-up.

VI.1
(cont'd)

ILO

Authority: Government request

Duration: 1 January 1967 - 30 June 1971

Estimated cost and

source of funds: The ILO project is a part of the UNDP project and does not have a separate budget

\$1,153,100 UNDP/SF allocation

\$ 664,526 Gov't contribution

\$1,817,626 Total

VI.1.13
(1967 CR: V.B.15)

ILO

Kenya - Management Training and Advisory Centre

The purpose of this project is to assist the Government to establish a Management Training and Advisory Centre that will provide advisory and information services and training in management development and productivity improvement to existing and new enterprises, including public utilities and services, as well as to government departments, employers and trade union associations.

The Centre is to render services to enterprises and individuals at the level appropriate to the conditions and needs of industry and business, as well as to Kenya entrepreneurs. The services will cover the fields of general management, industrial engineering, personnel management, management accounting, office management and marketing and sales.

Authority: Government request

Duration: 5 years; 1966-1971

Estimated cost and

source of funds: \$734,900 UNDP/SF allocation

\$360,546 Gov't contribution

\$1,095,446 Total

VI.1.14
(1967 CR: V.B.16)

ILO

Pakistan - Management development and industrial training scheme

The purpose of the project is to assist the Government of Pakistan to raise the standards of industrial management and supervision at all levels; to improve the efficiency of industrial operations with particular reference to methods of increasing productivity, of improving quantity and quality of output, of lowering costs and of developing constructive labour-management relations; and to improve the standards of trade instructors thereby raising the efficiency of production, maintenance and repair operations through the development of a trained industrial labour force.

VI.1.15
(1967 CR: V.B.30)

ILO

Participants will be drawn from practicing engineers and technicians who have completed secondary technical education and who have acquired practical knowledge of their activities. The project will be financed by the World Bank through the Inter-American Development Bank.

Participants will be drawn from practicing engineers and technicians who have completed secondary technical education and who have acquired practical knowledge of their activities. The project will be financed by the World Bank through the Inter-American Development Bank.

Authority: Government request

Duration: 5 years; initiated in September 1964

Estimated cost and

source of funds: \$1,161,900 UNDP/SF allocation
\$1,296,735 Gov't counterpart contribution
\$2,458,635 Total

Romania - Management Development Centre, Bucharest

The purpose of the project is to assist the Government of Romania to establish a Management Development Centre at Bucharest. The Centre will be concerned with the development of managerial knowledge, training of managerial personnel, studies and research to promote management techniques, and with publicizing and disseminating advanced information in the field of management.

The Centre will run development and appreciation courses for senior and middle management in general management and in all main functional fields. Studies and research will cover the main fields of management and organization of enterprises, in the activities of which the computing centre will be used. The Centre will also train experts and specialists, especially in the area of production (e.g. norm-setters).

Authority: Government request

Duration: 5 years; initiated in October 1963

Estimated cost and

source of funds: \$1,098,438 UNDP/SF allocation
\$ 968,247 Gov't counterpart contribution
\$2,066,685 Total

India - Management Development and Productivity Centre

The purpose of this project is to assist the Government in establishing the Management Development and Productivity Centre in Kharbanda to provide training and development in management and supervisory skills to improve productivity promotion and improvement. The Centre provides assistance to public and private enterprises in the field of general management, industrial engineering, management accounting, marketing and sales, supervisory training. The activities of this project will be complementary to the UNDP/IFD project for the establishment of the Industrial Research Institute in Ludhiana.

Authority: Government request

Duration: 5 years; 1965-1970

Estimated cost and

source of funds: \$144,300 UNDP/SF allocation (consisting of:
\$482,600 UNDP/SF contribution and
\$62,300 Gov't contribution towards
local operating costs)
\$411,049 Gov't counterpart contribution

VI.1.17
(1967 CR:V.B.21)

ILO

Syria - Management Development and Productivity Centre, Damascus

The purpose of this project is to assist the Government in establishing the Management Development and Productivity Centre to raise industrial productivity and train managerial staff in industrial enterprises. The activities of the project cover the whole country. The project came to standstill after the war in June 1967, but the activities have been resumed in both training and consultancy.

Authority: Government request

Duration: 5 years; 1965-1970

Estimated cost and

source of funds: \$670,400 UNDP/SF allocation
\$503,952 Gov't counterpart contribution
\$1,174,352 Total

VI.1.18
(1967 CR: V.B.22)

ILO

United Republic of Tanzania - National Institute for Productivity

The purpose of this project is to assist the Government in establishing the National Institute for Productivity in Dar-es-Salaam which is to provide advisory information and training for industry and business in the field of management development and labour productivity. The Institute provides assistance to public and private enterprises and to trade unions in the following fields: general management, industrial

Malaysia - Ipoh Polytechnic (MIP)

The Institute, established in 1963, provides training in railway and higher level technical education, electrical and technical engineering.

A government request for a second phase project from the Ministry of Education submitted. The request will be presented to the Government Council at its June 1968 session.

Duration: 6 years; 1963-1969

Estimated cost and

source of funds: \$1,445,000 UNDP/SF allocation
\$3,257,100 Gov't contribution
\$4,702,100 Total

VI.1.8

UNESCO

Malaysia - Ipoh Polytechnic

The purpose of this project is to assist the Government to establish an institution for the training of technicians.

Duration: 5 years; 1968-1973

Estimated cost and

source of funds: \$1,462,800 UNDP/SF allocation
\$7,548,000 Gov't contribution
\$9,010,800 Total

VI.1.9

UNESCO

Mexico - Regional Centre for Industrial Technical Training (CERETI), Guadalajara (MEX-20)

CERETI will provide training for sub-professional technicians in four different fields: mechanics, electrical engineering, electronics and building construction. CERETI will be a pilot centre for the fifteen regional technological institutes in the country.

The initial enrolment will be 150, but it is expected to increase this figure approximately to 300 per year by the end of the project.

Duration: 6 years; March 1968-1974

Estimated cost and

source of funds: \$1,509,500 UNDP/SF allocation
\$3,926,112 Gov't contribution
\$5,435,612 Total

VI.1.18
(cont'd)

110

engineering, management accounting, personnel management, supervisory training, and productivity and productivity statistics.

Authority: Government request to the UNDP

Duration: 5 years; 1961-1966

Estimated cost and

source of funds: \$849,800 UNDP allocation (including a
\$753,800 UNDP contribution and
\$96,000 Gov't contribution towards
local operating costs)
\$407,692 Gov't counterpart contribution
(in kind)

VI.1.19

110

Thailand - Management consultancy training, Bangkok

The purpose of the project is to assist the Government to establish a management consultancy service which will help both private and public enterprises to improve their operational efficiency by introducing modern management practices. This service will be provided by the Management Consultancy Division of the Thailand Management Development and Productivity Centre in Bangkok. The Centre is a permanent institution within the Industrial Works Department of the Ministry of Industry and its staff members are permanent government employees. The Management Consultancy Division will be administratively attached to the Centre; its work will be similar, in principle, to that of management consultant organizations in the more developed countries.

The Service will initially concentrate its activities on industries in the Bangkok, Thonburi and Chiangmai areas. Expert management consultants who specialize in general management, production management, financial management/management accounting, marketing and sales management or personnel management, will be assigned over a three-year duration. They will be made available, individually or in groups, to organizations to help evaluate problems and to implement proposals for improvement. By the cut-off date of the project, it is anticipated that the following national staff will have been trained and will be in post: a chief consultant, three senior consultants and fourteen resident consultants.

Authority: Government request

Duration: 3 years; initiated in January 1962

Estimated cost and

source of funds: \$497,700 UNDP/SF allocation
\$170,000 Gov't counterpart contribution
\$577,000 Total

Industrial and Labour - Management Development and Productivity Centre - Port of Spain

The purpose of this project is to assist in establishing the Management Development and Productivity Centre in Port of Spain, Trinidad and Tobago. Experts are provided in general management, marketing, industrial engineering and supervisory training.

Authority: Government request

Duration: 3 years; 1965-1970

Estimated cost and

source of funds: \$440,200 UNDP/SF contribution
\$455,280 Gov't contribution

VI.1.21
(1966 CR: V.B.41)
(1967 CR: V.B.25)

ILO

Tunisia - National Productivity Institute

The activities undertaken in this Institute include the training of actual and future managers of national and private enterprise, technical assistance in the fields of management and productivity improvement, and studies and research.

Authority: Government request. Follow-up of previous management and productivity activities started under a joint vocational training and management UNDP/ILO project.

Duration: 2 years; 27 July 1967 - 31 August 1969

Estimated cost and

source of funds: \$657,400 from UNDP/SF allocation

VI.1.22
(1967 CR: V.B.26)

ILO

Turkey - Establishment of the Management Development Centre

The purpose of the project is to assist the Turkish Management Association to expand the scope of activities at the Management Development Centre at Istanbul in order to raise the standard of management performance in industry, administration and commerce. The Centre is situated at Istanbul and branch offices have been opened at Ankara, Izmir, and Korfaz. The main field of activity at present is to provide training and consultancy assistance to small businessmen, but within the last few months the Ministry of Industry has requested a series of training courses for middle management levels for some of the nationalized industries.

The Centre has three divisions. The Management Consultancy Division is undertaking the selection and training of Turkish nationals for management consultants. The Management Programmes Division is responsible for selecting and training Turkish nationals to be trained officers in all fields of management. The Administrative Division is responsible for servicing the other two divisions. ILO assistance to the last division will increase in 1969.

VI.1.23
(1967 CR: V.8.27)

ILO

Authority: Government request

Duration: 5 years; 1965-1970

Estimated cost and

source of funds: The total estimated cost budgeted was \$830,000 for the recruitment, transport, accommodation, before the project became operational, for the provision of fellowships for national staff before their transfer to the training and consultancy division, and to provide a flexible "back-stop" fund in cases where the normal procedures are too rigid. UNCTAD has budgeted some \$800,000 for assistance to the Centre for provision of certain equipment and for short and long-term experts.

\$1,249,100 UNDP/SF allocation (consisting of \$1,130,900 UNDP/SF contribution and \$118,200 Gov't contribution)

\$2,168,667 Gov't counterpart contribution

VI.1.23
(1967 CR: V.8.27)

ILO

Venezuela - Venezuelan Institute of Productivity

The purpose of this project is to strengthen and enlarge the services of the Institute (INPRO) and to extend the productivity movement and management development programme in five field centres (Valencia, Maracaibo, Barcelona, Barquisimeto and Mérida). It will cover the subject matter of industrial engineering, marketing, personnel administration, financial and general management in the main centre in Caracas and in the selected field centres.

Authority: Government request

Duration: 5 years; 23 August 1965 - 22 August 1970

Estimated cost and

source of funds: \$955,200 UNDP/SF contribution
\$1,816,250 Gov't contribution

VI.1.24

UNCTAD/
GATT (ITC)

Training programmes in export promotion and marketing

(For description see chapter II.C.12)

VI.1.25

UNESCO

Singapore - Training of technical teachers (SIN-4)

This project provides for the training of technical and vocational teachers in pre-service and in-service training institutions.

Duration: 1968-1973

Estimated cost and

source of funds: \$3,036,200 (\$1,088,200 from UNDP/SF)

VI.1.1 11,100 Indonesia - Industrial consultation workshop (Management Improvement Clinic)
(For description see chapter XXI.D.34)

VI.1.7 11,100 Yugoslavia - Training course in the development of industrial exports, Zagreb
(For description see chapter II.C.34)

UNIDO The following field projects were developed during 1968

		Pro- gramme	Experts m/a	Cost
VI.1.28	Jamaica	<u>Maintenance workshops, problems of management and training (68-311)</u>	SIS	1/6 11,000
VI.1.29	Peru	<u>In-plant training of executives (ID-837)</u>	REG	1/6 11,400

J. Training of industrial administrators

VI.J.1

ECA Training courses in foreign trade and commercial policy.
In collaboration with GATT, ECA has been organizing annual training courses for several years in foreign trade and commercial policy for English and French-speaking African government officials to improve their practical knowledge in matters of commercial policy. The 1968 courses were held in Accra from 26 August to 21 September and in Kinshasa from 9 October to 5 November.

Duration: Accra, 26 August - 21 September 1968
Kinshasa, 9 October - 5 November 1968

VI.J.2

ECA

Empower and training course in 1968

The following training courses and seminars with significant training content were held in 1968:

- Seminar on Methods and Procedures for Improving Personnel Administration (10 - 12 June and 13 - 14 September, Addis Ababa)
- Local Development Administration Study Tour (1 - 15 October 1968, France, Italy and Yugoslavia)
- Subregional Training Course on Rural Extension and Community Development, East Africa (6 August - 7 September 1968, Nairobi)
- African Group Training Course in Community Development (21 April - 23 June 1968, Denmark)

Duration: 1968

VI.J.3

ECLA

Industrial training

ECLA does not directly undertake training activities in the field of industry. Nevertheless, close contact with the Latin American Institute for Economic and Social Planning is maintained and the staff of ECLA's Industry Division participates actively in the training courses offered by the Institute.

VI.J.4
(1967 CR: II.G.10)

ILO

Upgrading national labour administrations

Continuing the programmes of previous years for technical aid to national labour administrations in their machinery for dealing with labour affairs, ILO deployed, during 1968, a considerable number of advisers and experts in the regions of Africa, Asia, Latin America and the Middle East. The projects completed and/or started during the year affected some eighteen countries apart from the services provided regionally to groups of countries. Most of the activity was in Africa and Latin America where ILO maintained, on an average, seven experts for each region. New projects were also in preparation for various additional countries in the Asian and Middle Eastern regions.

Duration: Continuing

1973/74
Page 100

Other training of staff for labour administration

The programme providing facilities for the training of officers of national ministries of labour was maintained during 1968. The principal project was the Labour Administration Training course for officials from the English-speaking African administrations, held in Lusaka, Zambia, and attended by 28 participants from thirteen countries. A similar project, possibly at an advanced level, is being arranged for the Asian region. An interregional seminar for approximately twenty French-speaking participants coming from developing countries was held in the USSR in 1968, to study labour inspection in countries where trade unions have responsibility for this function. A number of ILO fellowships for studies of labour administration matters were also provided to enable officials to acquaint themselves with conditions in countries outside their region. Ad hoc training courses and in-service training schemes for the staff of ministries of labour were also organized by ILO experts attached to particular countries.

Duration: 1968

CHAPTER VII

MECHANICAL ENGINEERING INDUSTRIES, INCLUDING MACHINERY, MACHINE
TOOLS, PLANTS AND EQUIPMENT

- VII.1 ECA Mechanical engineering industries - including electrical machinery and transport equipment
On the above subject, a publication entitled The Development of Engineering Industries in North Africa was issued.
Duration: 1968
- VII.2 (1967 CR: VIII.2) ECA Central Africa - "Les Industries mécaniques et électriques dans la sous-région d'Afrique Centrale"
The above publication was completed in 1968. It will be issued in 1969.
- VII.3 ECAFE Fact-finding team on petrochemical industries
(For description see chapter IV.C.5)
- VII.4 (1967 CR: VIII.10) ECE Engineering Industries and Industrialization
With the help of qualified consultants, the secretariat has prepared a study which covers: economic structures of the engineering industries and their place in the economies of industrial countries and of those in the process of industrialization; the economic aspects of engineering industries; the main trends in world production and foreign trade of engineering goods; and conclusions and recommendations. The study was submitted to the International Symposium on Industrial Development, which took place in Athens in 1967, and published in the course of 1968 as ST/ECE/ENG/6.
Authority: CID request to provide background material for the International Symposium on Industrial Development
Duration: 1965 - May 1967 (study published in 1968)
Source of funds: ECE budget and UNIDO contribution

VII.
CR: VIII.-

Bulletin of Statistics on World Trade in Engineering Products

This statistical bulletin lists the exports of engineering products of major exporting countries (covering 95.4 per cent of total trade in engineering products) by 140 countries of destination and by 50 product groups. The first issue covered the year 1963 and was published in 1965; data for the years 1964 and 1965 appeared in 1966; data for 1966 in 1968. The bulletin for 1967 was issued towards the end of 1968.

Authority: ECE decisions C (XX) and I (XXI)

Duration: Continuing

VII.6
(1967 CR: VIII.9)

ECE

Requirements of European countries in the process of industrialization for engineering products

This study covers production, foreign trade and development plans and programmes for engineering products, of the European countries in the process of industrialization, as well as an assessment of the requirements for engineering products of those countries. The following countries were covered in the study: Bulgaria, Greece, Romania, Spain and Yugoslavia. At its twenty-third session, ECE recommended the study for publication.

Authority: Meeting of Experts on Engineering held pursuant to ECE resolution 9 (XVII)

Duration: 1964 - February 1968

VII.7
(1967 CR: VIII.11)

ECLA/
UNIDO

Advisory services - mechanical industry

The regional adviser on the mechanical industry has continued to provide various advisory services to the countries of the region, particularly to those which are members of the Andean subregional group.

Duration: Continuing

Estimated cost: 1968 - approximately 12 man-months

VII.8
(1967 CR: VIII.12)

ECLA

The manufacture of machinery and equipment for the basic industries of some Latin American countries

This study was originally envisaged as a regional-type study covering most of the countries of Latin America. It was not possible, in the case of some countries, to work out the terms of reference for the execution of the field work and the necessary research work; therefore, this study has been limited to an analysis of the situation in four countries of the area, namely, Argentina, Brazil, Colombia and Chile.

Authority: ECLA resolution 207 (IX)

Duration: Continuing

Estimated cost: 1968 - approximately 4 man-months

- VII.9 ECOTAP
GATT (ETC.) The Market Information Service
(For description see chapter III.6.2)
- VII.10 UNESCO Ecuador - National Polytechnic School, Santiago
(For description see chapter VI.4.2)
- VII.11 UNIDO Expert Group Meeting on the Design, Manufacture and Utilization of Dies and Jigs
The meeting was held at UNIDO headquarters in Vienna, Austria. The substantive items on the agenda included the survey of modern developments and trends in the design of dies and jigs; the economics of production of dies and jigs; and the influence of dies and jigs on product design and quality development problems. Thirteen experts from developing and developed countries (Brazil, Cameroon, Czechoslovakia, France, Hungary, India, Portugal, Switzerland, Tunisia, UAR, USA and USSR) and a number of observers from the local industry attended the Meeting.
The recommendations adopted have been summarized in a draft report entitled "Report of expert group meeting on design, production and utilization of dies and jigs in developing countries". This report and the background information assembled for the Meeting will be processed internally and distributed in 1969 to support and develop operational and training activities in this field.
Authority: IDB, 1968 (ID/B/20/Rev.1, para. 52 (a))
Duration: 9-22 December 1968
Estimated cost and source of funds: \$10,000 from UNDP/TA
- VII.12 UNIDO Studies on design, manufacture and utilization of dies and jigs
Eleven studies were prepared by outside consultants as background information and material for discussion at the Expert Group Meeting on the Design, Manufacture and Utilization of Dies and Jigs. The main subjects treated are: modern aspects of and trends in design and manufacture of dies, jigs and fixtures; organization of dies and jigs production shops; experience of the developing countries in dies and jigs making; influence and interrelation of product design and design and production of dies and jigs; economic management aspects of dies and jigs production.
UNIDO intends to supplement these studies with additional information and to publish a manual, as recommended by the Expert Group Meeting.
Authority: IDB, 1968 (ID/B/20/Rev.1, para. 53 (a))
Duration: March-December 1968
Estimated cost and source of funds: \$5,000 from Consultant Funds

VII.13

UNIDO

Field surveys on maintenance and repair in the developing countries

In 1968 UNIDO launched a comprehensive programme in the field of maintenance and repair. Reports of UNIDO technical assistance experts who served in Cameroon and the Democratic Republic of the Congo, indicated that the task will be a long-range one. In the fourth quarter of 1968, UNIDO consultants visited five selected developing countries to identify the exact nature of maintenance and repair needs. These visits also made it clear that the establishment of repair shops will not only assist in the rehabilitation of disabled equipment, but also bring to light the importance of preventive maintenance of functional machinery.

Authority: Recommendations of the International Symposium on Industrial Development, Athens 1967 (ID/B/21 ID/CONF/1/62 Annex 1, para. 11, p.49(6); IDR, 1968 (ID/B/41, para.117)

Duration: Initiated in 1967 - continued through 1968

Estimated cost and source of funds: \$25,000 from UNDP/TA and 3 man-months

VII.14

UNIDO

Establishment of manufacturing of cutting tools

UNIDO staff was engaged during 1968 in the collection and dissemination of information in metalworking. One information paper "The establishment of manufacturing of cutting tools plants", was prepared internally for distribution to developing countries in 1968.

Authority: International Symposium on Industrial Development, Athens 1967 (ID/B/21 ID/CONF.1/62, Annex 1, para. 11); IDR, 1968 (ID/B/41, para. 114)

Duration: May-September 1968

Estimated cost: 2 man-months

VII.15

UNIDO

Report on the development of the metalworking industries in the developing countries

The report of the Symposium on the Development of the Metalworking Industries, held in Moscow in 1966, was published as UNIDO Document ID/8. The papers presented at the Symposium will be issued in two volumes as UNIDO Document ID/6 in 1969.

Authority: IDR, 1967 and 1968 (ID/B/20/Rev.1, para. 57)

Duration: 1967-1968

Estimated cost and source of funds: \$2,000 from UNIDO Publication Funds

VI.E.10

UNESCO

United Arab Republic - Institute of Higher Education

This College, a UNESCO Special Centre for the training of secondary, tertiary and higher level technicians, will be devoted to training in civil engineering.

A government request has been submitted for a grant to enable the project to run for about four years.

Duration: 4 years, 1963-1968

Estimated cost and

source of funds: \$1,171,100 UNDP/SF allocation
\$3,974,705 Gov't contribution
\$5,145,805 Total

VI.E.11

UNESCO

United Arab Republic - Institute of Petroleum and Mining, Suez

This Institute provides training for technical personnel in the fields of petroleum and mining engineering.

Duration: 6 years; 1965-1970

Estimated cost and

source of funds: \$1,073,300 UNDP/SF allocation
\$1,454,200 Gov't contribution
\$2,527,500 Total

VI.E.12

UNESCO

United Arab Republic - Mansoura Polytechnic Institute for Higher Education

This Institute provides courses for the training of practical engineers, teachers for vocational schools, technicians, and other specialists for industry, agriculture and government services in these fields.

Duration: 5 years; 1964-1969

Estimated cost and

source of funds: \$1,747,900 UNDP/SF allocation
\$2,345,000 Gov't contribution
\$4,092,900 Total

VI.E.13

UNESCO

Venezuela - National Polytechnic Institute, Barquisimeto (VEN-2)

Under this project an institute will be established for providing courses for the training of intermediate-level engineers with the practical orientation necessary for supervisory posts in electrical and mechanical technology.

Duration: 7 years; December 1963 - December 1970 (an extension will probably be requested)

Estimated cost and

source of funds: \$1,517,116 UNDP/SF allocation
\$6,862,737 Gov't contribution
\$8,379,853 Total

- VII.16 UNIDO Industrial co-operation in promotion of industrial export
(For description see chapter VI.C.25)
- VII.17 UNIDO In-plant group training programme - diesel engines, CSSR
(For description see chapter VI.H.10)
- VII.18 UNIDO In-plant group training programme - mechanical industries, Japan
(For description see chapter VI.H.14)

UNIDO The following field projects were developed during 1968

			Pro- gramme	Experts m/m	Cost \$
VII.19	Algeria	<u>Lock factory operations (67-89)</u>	SIS	1/6	14,000
VII.20	Argentina	<u>Machine tool design and production (68-258)</u>	SIS	2/8	20,000
VII.21	Argentina	<u>Installation of high speed heavy machinery (111-57)</u>	TA	2/6	11,340
VII.22	Bulgaria	<u>Fellowships in hydraulics (236-67)</u>	TA	4/21 (fellows)	7,500
VII.23	Bulgaria	<u>Fellowships in mechanical engineering (10-980)</u>	REG	3/10 (fellows)	3,600
VII.24	Chile	<u>Boiler plate manufacturing industry (130-57)</u>	TA	1/12	22,000
VII.25	Chile	<u>Machine tool manufacture (130-57)</u>	TA	1/13½ (1/6 fellows)	27,340
VII.26	Chile	<u>Managerial advice on production, programming and quality control (130-57)</u>	TA	1/12	24,000
VII.27	Colombia	<u>Maintenance and manufacture of forging dies (68-278)</u>	SIS	1/8	18,280
VII.28	Dominican Republic	<u>Maintenance and repair (X80-642)</u>	TA	2/24	29,108
VII.29	Hungary	<u>Fellowships in various engineering fields (259-65)</u>	REG	8/45 fellows	15,900
VII.30	India	<u>Production of machine tools (35-57)</u>	TA	1/12	20,630
VII.31	Indonesia	<u>Maintenance and inventory system for spare parts (43-57)</u>	TA	1/6	10,800
VII.32	Indonesia	<u>Rehabilitation of mechanical workshops (67-176)</u>	SIS	3/36	72,000

			Pro- gramme	Experts n/m	Cost \$
VII.31	Iran	<u>Selection of industries for development planning (220-51)</u>	TA	1/4	14,250
VII.34	Israel	<u>Increased production of metal-working industries (67-52)</u>	SIS	1-1	2,000
VII.35	Israel	<u>Coin making equipment (243-57)</u>	TA	1/3 (1/4 fellows)	8,700
VII.36	Lebanon	<u>Development of engineering industries (26-58)</u>	TA	1/6	10,450
VII.37	Malta	<u>Manufacture of industrial components and identification of potential assembly industries (124-67)</u>	SIS	1/6	11,000
VII.38	Philippines	<u>Evaluation of engineering projects (67-254)</u>	SIS	1/12	25,000
VII.39	Philippines	<u>Steel industry surveys (79-57)</u>	TA	1/18 (1/12 fellows)	44,400
VII.40	Romania	<u>Introduction of welding techniques and equipment (68-315)</u>	SIS	2/6	15,100
VII.41	Singapore	<u>Manufacture of padlocks and other building hardware (68-266)</u>	SIS	1/9	20,000
VII.42	Singapore	<u>Foundry demonstration and service unit (SII-7)</u>	SF	4/60	109,500
VII.43	Singapore	<u>Establishment of bicycle-manufacturing factory (264-61)</u>	TA	1/12	19,700
VII.44	Singapore	<u>Improvement of metal products design (68-333)</u>	SIS	1/6	11,000
VII.45	Singapore	<u>Manufacture of building hardware (26-66)</u>	TA	1/3	5,500
VII.46	Tunisia	<u>Industrial cost accounting system (68-297)</u>	SIS	1/4	9,000
VII.47	Tunisia	<u>Selection of equipment and production methods (67-73)</u>	SIS	1/6	14,000
VII.48	Turkey	<u>Gear manufacturing training and management (277-57)</u>	TA	1/1	1,800
VII.49	Turkey	<u>Chemical and petrochemical engineering, gear manufacturing, forging and management (training) (277-57)</u>	TA	3/32	56,850

			Project	Experts	Total
			Number	Months	\$
VII.50	Uganda	<u>Refrigerator and stove production and supervision of plant (65-74)</u>	SIS	1/6	10,000
VII.51	United Arab Republic	<u>Engineering and Industrial Design Development Centre, Nassar City (UAR-55)</u>	SF	1/12 (100 fellows)	25,000 1,000,000 1,025,000
VII.52	Venezuela	<u>Increase of metalworking products (201-57)</u>	TA	1/12	5,000
VII.53	Zambia	<u>Survey of metalworking and engineering industry (67-164)</u>	SIS	2/6	15,000
VII.54	Regional	<u>Regional industrial adviser with ECAFE (ID-1083)</u>	REG	1/12	22,000
VII.55	Regional	<u>Development of mechanical industries (ID-495)</u>	REG	1/12	17,000

CHAPTER VIII

ELECTRICAL AND ELECTRONIC INDUSTRIES, INCLUDING TELECOMMUNICATIONS EQUIPMENT,
APPLIANCES AND ELECTRIC INSTRUMENTS

- VIII.1 ECA Central Africa - "Les Industries mécaniques et électriques dans la sous-région d'Afrique Centrale"
(1967 CR: VIII.2) . (For description see chapter VII.2)
- VIII.2 ECA North Africa - Prospects for the Establishment of an Integrated Electronics Industry in the North African subregion
(1967 CR: VIII.3) . The above publication was issued as E/CN.14/INR/149 in 1968.
- VIII.3 ECAFE Development of electrical manufacturing industries
The purpose of this project is to promote the development of electrical manufacturing industries in the countries of the region, utilizing to the maximum the indigenous raw material resources. The methods of implementation consist of investigating the use of raw materials in electrical manufacturing industries, developing standards of electrical equipment and material based on indigenous raw materials, disseminating information on development of industries, both power and electronics, and organizing a seminar on the development of electronics manufacturing industries.
Authority: Sub-Committee on Energy Resources and Electric Power; Committee on Industry and Natural Resources; ECAFE
Duration: Depending on resources from OTC, studies may be undertaken in 1969-1970
Source of funds: ECAFE regular budget and funds from OTC
- VIII.4 ITU Progress in the field of radio telecommunications equipment
The International Radio Consultative Committee (CCIR) of the ITU undertakes research activities and issues reports and notices pertaining to the varied fields of radio communications. These documents include, inter alia, details of the technical characteristics of transmitters, receivers and auxiliary equipment, radio relay equipment, and of equipment for mobile services, radio broadcasting (including television) and for space communications. A number of subjects which directly concern newly independent and developing countries are covered in the documents of the CCIR.

VIII.A
(cont'd)

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The results of these major activities are regularly reviewed by the Plenary Assemblies of the CCIR, which, on this principle, every three years.

During 1968 the CCIR has organized and held the following meetings:

Meeting in Palma (9 April-10 May 1968)

- Study Group X - Broadcasting
- Study Group XI - Television
- Study Group XII - Tropical broadcasting

Meeting in Boulder, Colorado (9 July-7 August 1968)

- Study Group V - Propagation over the surface of the earth and through the non-ionized regions of the atmosphere
- Study Group VI - Ionospheric propagation
- Study Group VII - Standard-frequencies and time-signals
- Study Group VIII - International monitoring

Meeting in Geneva (4 September-8 October 1968)

- Study Group IV - Space systems and radioastronomy
- Study Group IX - Radio-relay systems
- Study Group XIII - Mobile services
- CCIR/CCITT Joint Study Group for television transmissions (CMTT)

Meeting in Geneva (9-25 October 1968)

- Study Group I - Transmitters
- Study Group II - Receivers
- Study Group III - Fixed service systems

The results of the work carried out during the above meetings will be submitted for approval to the Plenary Assembly of the CCIR to be held in January-February 1970.

The International Telegraph and Telephone Consultative Committee (CCITT) does not concern itself directly with problems relating to the construction of telecommunications equipment. It is only necessary that constructors of this equipment take into account the norms and recommendations set out in the publications of CCITT, particularly in the various volumes of the White Book being prepared following the Fourth Plenary Assembly held at Mar del Plata, 1968. Constructors and government departments responsible for telecommunications in developing countries can find useful information on certain aspects of the construction of cables in the publications Guidelines for the Protection of Telecommunication Lines and in Recommendations against Corrosion. They can also take into account the information in the manuals already published or being prepared by CCITT on national automatic telephone networks, local telephone networks, the economic and technical comparison of transmission systems and primary sources of energy.

Duration: 1968 - continuing

VIII.5

IDB

Expert group meeting on the status of technology in the electric and electronic industries with recommendations for application to the developing countries

This meeting was programmed for 1968, subject to availability of funds. Since no funds were made available, it was agreed instead to hold a conference in 1969 on the Manufacture of Telecommunication Equipment in the Developing Countries, including low-cost Radio and Television Receivers. The conference will be financed under the UNDP/TA programme. The preliminary work, which included selection of subjects and authors for the preparation of studies, was completed in 1968. Six authors were commissioned to submit papers.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 52 (b))

Duration: 1968 - 1969

Estimated cost: 3 man-months

VIII.6

UNIDO

Status of technology in the electrical and electronic industries

The preparation of these studies was started in 1967 and continued in 1968. In view of the planned 1969 conference on the manufacture of telecommunication equipment in the developing countries, attention was focused on subjects concerning the production of two-way communication equipment and low-cost radio and television receivers in developing countries.

The papers, with the conclusions and recommendations to be derived from the 1969 conference, are to be published as a manual in 1970.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 53 (b))

Duration: Started in 1967, continued in 1968

Estimated cost and source of funds: \$5,000 from UNDP/TA

VIII.7

UNIDO

In-plant crew training programme - electrical industries, Sweden
(For description see chapter VI.H.11)

UNIDO The following field projects were approved during 1968:

Project No.	Country	Project Title	Type	Period	Estimated Cost	
					(\$)	(\$)
VIII.8	Bulgaria	<u>Instruments design (220-57)</u>	TA	1/68	11,400	
VIII.9	China	<u>Survey of the electronic industry (67-116)</u>	SIS	1/68	8,000	
VIII.10	India	<u>Design Centre for Electrical Measuring Instruments (IND-27)</u>	TA	1/68	20,000	9,000
				Total	1,977,000	
VIII.11	Iran	<u>Development of the electronics industry (220-57)</u>	TA	1/68	11,400	
VIII.12	Somalia	<u>Reducing the cost of electric power (67-215)</u>	SIS	1/68	8,000	
VIII.13	United Arab Republic	<u>Design and manufacture of high-voltage porcelain insulators (68-289)</u>	SIS	2/73	9,000	

CHAPTER IX

INSTRUMENTS INDUSTRIES, INCLUDING PRECISION AND OPTICAL INSTRUMENTS

- IX.1 IAEA Radioisotopes X-Ray Fluorescence Applications
A Panel on Radioisotope X-Ray Fluorescence Applications was convened in Vienna in May 1968, to assess the present utilization of these instruments and to formulate areas of potential application. The meeting was attended by sixteen scientists from seven countries and one international organization. A report of the meeting is in preparation.
Authority: IAEA Programme
Duration: 13-17 May 1968
Estimated cost: \$5,000
- IX.2 IAEA Regional adviser to Asia and the Far East on industrial applications of radioisotopes
The expert was appointed for six months in 1968 and visited nine countries in the region to advise on all aspects of industrial applications of radioisotopes.
Duration: 6 months; 1968
Total cost: \$25,000
- IX.3 IAEA Regional adviser to Latin America on industrial applications of radioisotopes
During six months the expert visited fourteen countries in the region, advising generally on industrial applications of radioisotopes.
Duration: 6 months; 1968
Total cost: \$25,000
- IX.4 IAEA Chile - Industrial application of radioisotopes
An expert in industrial applications of radioisotopes visited Chile for six months in 1968 to assist in establishing a service to industry and to demonstrate industrial radioisotope instruments.
Duration: 6 months; 1968
Estimated cost: \$11,000
Equipment cost: \$10,000

IX.5

IAEA

Guatemala - Industrial applications of radiography

An expert in industrial applications of radiography and his personal personnel for a period of three months in Guatemala to assist in the tracer applications to industrial plants.

Duration: 3 months; 1968

Estimated cost: \$3,500

Equipment cost: \$2,000

IX.6

IAEA

Thailand - Industrial radiography

At the request of the Thai authorities, an expert in industrial radiography visited Thailand in 1968 to advise and train local personnel.

Duration: 1968

Estimated cost: \$11,000

Equipment cost: \$5,000

ANNEX

AGRICULTURAL MACHINERY AND EQUIPMENT INDUSTRIES

X.3 ECAE Fact-finding team on industries manufacturing agricultural machinery
(For description see chapter IV.C.1)

X.4 UNIDO Development of agricultural machinery industry in developing countries

During the third quarter of 1968 an engineer, experienced in agricultural machinery and implements production, joined UNIDO for a fixed term of six months to programme the substantive work of UNIDO in this field. Advance specifications and plans were elaborated by the expert. He also drafted the agenda for the Expert Group Meeting on Agricultural Machinery Industry to be held in 1969.

Authority: IDB, 1968 (ID/B/41, para. 116)

Duration: August 1968-January 1969

Estimated cost and

source of funds: 6 man-months consultant services at UNIDO headquarters

UNIDO The following field projects were developed during 1968

		<u>Pro-</u> <u>years</u>	<u>Experts</u> <u>n/a</u>	<u>Cost</u> <u>\$</u>
X.3	Brazil	<u>Agricultural implements (68-265)</u>	SIS	1/6 14,000
X.4	China	<u>Survey of agricultural implements (67-116)</u>	SIS	1/3 6,500

VI.F.1

UNESCO

Cyprus - National Technical Centre, Pafos (Cyprus)

This centre provides for the training of electrical, civil, marine engineers and technicians in electronics.

Duration: 5 years; 1967-1972

Estimated cost and

source of funds: \$1,574,400 UNDP/SF allocation
\$7,389,400 Gov't contribution
\$8,963,800 Total

F. Training of technical and vocational teachers and instructors

VI.F.1

UNESCO

Cyprus - Higher Technical Institute, Nicosia

The purpose of this project is to assist the Government of Cyprus in establishing a Higher Technical Institute for training technicians and technical teachers.

Duration: 5 years; 1968-1972

Estimated cost and

source of funds: \$980,500 UNDP/SF allocation
\$867,000 Gov't contribution
\$1,847,500 Total

VI.F.2

UNESCO

Greece - Training of technical teachers (GRC-12)

This is a joint project for the training of: technician teachers in theoretical technical subjects (two-year programme); workshop and trade technology teachers (two-year courses); technical teachers (one-year in-service training scheme); foremen (up-grading courses); instructors and advisers for industry; and monitors for an apprenticeship scheme.

Duration: 5 years; 1966-1970

Estimated cost and

source of funds: \$3,186,043 (\$1,078,638 from UNDP/SF)

CHAPTER XI

SHIPPING AND MARITIME INDUSTRIES

XI.1
(1967 CR: XI.4)

ILO

Productivity in ports and working conditions of dockworkers

ILO participated in the 1968 session of the Port and Shipping Training Centre - an annual seminar financed by the United Nations Office of Technical Co-operation with Developing Countries and attended by port administrators and senior officials in the shipping departments of developing countries - by providing lectures on better organization of work in ports, increasing the productivity of dockworkers, and improving dockworkers' conditions of employment.

Duration: 1968 - continuing

Estimated cost: 1 man-month

XI.2
(1967 CR: XI.5)

ILO

International Code of Practice regarding safety of fishing vessels

The draft of the Code was approved by a meeting, held in Geneva in September 1968, of consultants appointed by ILO, FAO and IMCO.

Duration: 1968

Estimated cost: \$7,000

XI.3

ILO

Conditions of work of boatmen

A Committee on Conditions of Work in the Inland Water Transport Industry met in Geneva in October 1968 and examined on a world-wide basis the following questions: minimum age for admission to employment, medical examinations, and vocational training and certificates of competency. The conclusions of the Committee are being studied by ILO with a view to their being embodied in formal international instruments. The reports prepared for the Committee are available on request.

Duration: October 1968

Estimated cost: \$10,000

XI.4

ILO

Seminar on Dock Labor Questions for Latin American Countries

A Seminar on Dock Labor Questions for Latin American Countries was held in Barranquilla, Colombia, in November 1968. The purpose of the Seminar, which was attended by government officials, port employers and dock workers, was to examine common problems regarding conditions of employment in the docks, decasualization and social repercussions of new methods of cargo-handling (containers, pallets, roll-on/roll-off, etc.), with a view to exchanging experience and finding solutions where possible.

Duration: November 1968

Estimated cost: \$22,000

XI.5

ILO

Vocational training of seafarers

A study of maritime training in some 60 countries and territories was published in 1968. It covers training of officers and ratings for work in all departments on board ship, and deals with principles and objectives of training, organization and co-ordination, administration and financing, training programmes, methods and contents of training, training personnel and certificates of competency. It describes the various ILO activities relating to the professional competence and training of seafarers. The study may be obtained against payment of a nominal charge.

Duration: 1968

Estimated cost: \$1,292

XI.6

ILO

Seminar on Maritime Training for Asian Countries

ILO organized, in co-operation with the Government of Denmark, a Seminar on Maritime Training for Asian Countries in Holte, Denmark, in October 1968. The purpose of the Seminar was to enable government officials and representatives of shipowners' and seafarers' organizations possessing a thorough knowledge and practical experience of the training and certification of seafarers in their own countries to study conditions in Denmark, to exchange experience and to draw appropriate conclusions regarding various aspects of maritime training for possible application to their national shipping industries. Expert lecturers in maritime training from several countries advanced in this field attended the Seminar.

Duration: October 1968

Estimated cost: \$55,000

- XI.7 ILO Asia regional - Participation in a port survey team in Asia
This team, established in 1966, includes an ILO expert in port operations. The activities of the team, which is concerned with improving efficiency in port operations, have covered ports in Taiwan, China (Taiwan), Indonesia, the Republic of Korea, Iran, Pakistan, the Philippines and Thailand. The work was terminated at the end of 1968.
Estimated cost: 1968 - 12 man-months
- XI.8 ILO Dominican Republic - Organization of work in Port of Santo Domingo
An ILO expert carried out a survey of conditions in the Port of Santo Domingo. The recommendations of the expert, which have been submitted to the Government, concern organization of work, measures designed to accelerate the turn-round of ships and to improve the conditions of employment of dockworkers. The expert also made proposals for the establishment of an independent Santo Domingo Port Corporation.
Authority: Government request
Estimated cost: 1967 - 7 man-months; 1968 - 2 man-months
- XI.9 (1967 CR: XI.6) ILO Ivinsia - Employment and prevocational training of fishermen
Following the recommendations of an expert group, a list of equipment for seven prevocational maritime training centres has been approved, and proposals have been formulated for outside expert assistance in connexion with the running-in of the centres.
Duration: Continuing
Estimated cost: 1968 - 8 man-months
- XI.10 ILO Uruguay - Organization of work in the Port of Montevideo
Following a general investigation into the conditions of dockworkers in the Port of Montevideo carried out by an ILO expert in 1967, a project has been prepared concerning assistance in the organization of work and administration of this port. The project provides, in the first instance, for an expert in port accountancy and another in maintenance of port equipment, in addition to the expert in charge of the general investigation and of evaluating the needs of the port authorities
Estimated cost: 1968 - 12 man-months

Summary of Major Projects, Programs, and Activities

For the period ending 12/31/68

The following major projects were developed during 1968:

			<u>Pro-</u> <u>grams</u>	<u>Expend-</u> <u>iture</u>	<u>Cost</u> <u>\$</u>
XI.1.	Per-	<u>Shipbuilding industry (195-57)</u>	IA	1/2	13,200
XI.13	inistry	<u>Modernization of dockyard facilities and equipment (68-717)</u>	SIS	1/2	5,000

TRANSFERRED PROJECTS

TRANSFERRED PROJECTS

XII.1
(1967 CR: XII.1)

ECLA

Study on the motor vehicle industry in Latin America

The progress made on this project, which has been criticized in previous reports, has not been as rapid as anticipated, due to difficulties both in obtaining the necessary information and in the recruitment of the necessary technical personnel. This project is being carried out in co-operation with the Inter-American Development Bank, and completion of the first stage is scheduled for around the end of 1969. Work this year has been concentrated principally on the analysis of the market for motor vehicles and on the projection of future demand.

Authority: ECLA resolution 207 (IX)

Duration: 1968-1969

Estimated cost: 1968 - approximately 8 man-months

XII.2
(1967 CR: XII.2)

UNIDO

Expert group meeting on the establishment and development of the automotive industry in developing countries

This expert group meeting (which is now to be held in the form of a seminar) was to be convened in October 1968, and funds were made available in 1968 under the national contribution of Czechoslovakia. This meeting was rescheduled for 1969. The purpose of the seminar is to assist the developing countries in identifying and solving some of the technological, economic and financial problems connected with the establishment and development of the automotive industry.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 52(c))

Duration: 1968 (meeting to be held in 1969)

Estimated cost and

source of funds:

\$22,000 UNDP/TA

KCS 740,000 voluntary contribution by the Gov't
of Czechoslovakia

XII.
(1967) Co: XII.2

1100

Studies on the establishment and development of the automotive industry in developing countries.

In addition to the papers prepared in 1966 and 1967, six studies have been written in 1968 by Czechoslovak authors and financed from their national contribution. While the studies to be submitted to the Seminar were printed in English only, summaries were also prepared in French and Spanish. Furthermore, participants from developing countries invited to the Seminar prepared twenty briefs on the present situation of the automotive and ancillary industries in their countries. These briefs will be submitted for discussion at the Seminar as well.

The studies prepared are to provide advice and guidelines to developing countries in identifying and solving technological, economic, organizational and financing problems related to the establishment and development of indigenous automotive industries.

Authority: IDB, 1968 (ID/B/20/Rev.1), para. 52 (c))

Duration: 1966-1968

Estimated cost and

source of funds: KCS 19,200 voluntary contribution by the Gov't of Czechoslovakia

UNIDO

The following field project was developed during 1968

XII.4

Peru

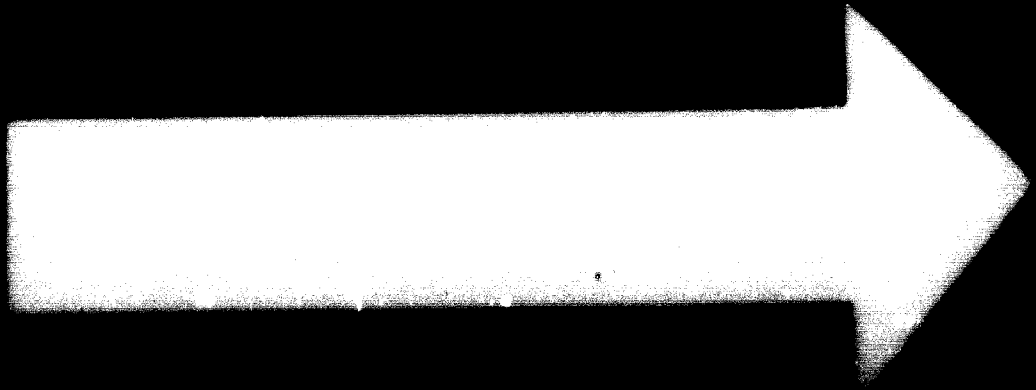
Automotive Industries (195-57)

<u>Pro-</u> <u>gramme</u>	<u>Experts</u> <u>m/n</u>	<u>Cost</u> <u>1</u>
TA	1/6	11,220

CHAPTER XIII

METALLURGICAL INDUSTRIES (IRON AND STEEL; NON-FERROUS METALS, INCLUDING ALUMINIUM)

- XIII.1 ECA Studies on iron and steel
The following studies on iron and steel were undertaken in 1968:
Africa - "Present status and future of the iron and steel industry for African countries" presented by the ECA staff member at the Second United Nations Interregional Symposium on the Iron and Steel Industry organized by UNIDO, Moscow, 19 September - 9 October 1968
Central Africa - "Sidérurgie (IV sous-région économique africaine)"
North Africa - "Economic Commission for Africa study on industrialization and economic co-operation for the North African subregion: basic metals industry"
Duration: 1968
- XIII.2 ECA Non-ferrous metals, including aluminium
(1967 CR: VII.1)
The following studies were undertaken on the above subject:
Central Africa - "Aluminium industry and demand for non-ferrous metals in the Central African subregion: development prospects 1965-1980"
Central Africa - A study on copper fabrication was completed at the end of 1968.
A study on the non-ferrous metals in North Africa is included in the publications on the basic metals industry mentioned in chapter XIII.1.
Duration: 1968
- XIII.3 ECA Inter-industry balance studies for North and Central Africa
(1967 CR: II.D.9)
(For description see chapter II.F.4)
- XIII.4 ECAFE Iron and steel pre-investment feasibility studies
(For description see chapter IV.E.2)



16.7.74

VI.F.3

UNESCO

India - teacher training for engineering colleges, Madras

The purpose of this project is the expansion of an existing institution to provide a training centre for teachers of eight regional engineering colleges, to improve the academic standards and to develop new specialized fields of study.

Duration: 5 years; 1964-1969

Estimated cost and

source of funds: \$1,910,000 UNDP/SF allocation
\$8,679,900 Gov't contribution
\$10,589,900 Total

VI.F.4

UNESCO

Lebanon - Training of technical teachers (LEB-7 and LEB-11)

The second phase of the project provides for: training of technical teachers and science teachers for technical training institutions; in-service training of technical teachers in various specialties; and educational research on improving methods and programmes of technical education.

Duration: 2 years; 1968-1970

Estimated cost and

source of funds: \$547,000 (\$207,000 from UNDP/SF)

VI.F.5

UNESCO

Monrovia - Polytechnic Institute, Ulan-Bator

The purpose of this project is to assist the Government in: establishing and starting the Institute for training highly qualified teaching personnel, developing the curricula, improving the teaching methods on a continuing basis, and building up modern laboratory facilities.

Duration: 5 years; 1967-1972

Estimated cost and

source of funds: \$1,887,400 UNDP/SF allocation
\$11,827,000 Gov't contribution
\$13,714,400 Total

VI.F.6

UNESCO

Nigeria - Training of technical teachers (NIR-22)

This project provides training for: teachers for training technicians, craft teachers for vocational training centres, commercial school teachers for commercial institutes, and technical orientation teachers for general secondary schools.

Duration: 5 years, 1967-1971

Estimated cost and

source of funds: \$2,958,600 (\$1,313,600 from UNDP/SF)

VI.F.7 Saudi Arabia - College of Engineering, Riyadh

This college for training mechanical, electrical and civil engineers, also provides vocational and technical courses.

Duration: 7 years; 1967-1969

Estimated cost and

source of funds: \$1,041,500 UNDP/SF allocation

\$4,724,250 Gov't contribution

\$5,765,750 Total

VI.F.8

UNESCO

Thailand - Training of technical teachers (TUA-22)

This project provides a two-year course of training technical teachers for technical schools.

Duration: 5 years; 1967-1971

Estimated cost and

source of funds: \$1,113,690 (\$993,200 from UNDP/SF)

G. Training of engineers

VI.G.1

UNESCO

Advisory Panel on Technical and Technological Education

In May 1968 an Advisory Panel was organized at the Ecole Polytechnique of Lausanne University. About ten specialists from different technical universities in both developed and developing countries participated in this Panel and discussed syllabi and the structure of engineering education. This work was begun in 1967 and will continue in the next biennium to establish a reference documentation.

Duration: 1967-1969

Estimated cost: \$5,000 (\$15,000 for the whole biennium)

VI.G.2

UNESCO

International Conference on the Trends in the Teaching and Training of Engineers

This Conference, held at UNESCO headquarters in Paris in December 1968, was attended by about 150 participants. It provided a forum for the free exchange of views and adopted a series of conclusions.

Duration: December 1968

Estimated cost: \$35,000

VI.5.

UNESCO

Algeria - Training of engineers at the University of Algiers

The purpose of this project is to expand the University of Algiers to include courses in mechanical, electrical and industrial engineering.

Duration: 5 years; 1965-1970

Estimated cost and

source of funds: \$1,140,000 UNDP/SF allocation
\$4,555,700 Gov't contribution
\$5,695,700 Total

VI.G.4

UNESCO

Algeria - Training of civil and electrical engineers at the University of Algiers

The purpose of this project is to train civil and electrical engineers to meet demands created by economic development in Algeria.

Duration: 5 years; 1963-1968

Estimated cost and

source of funds: \$1,081,143 UNDP/SF allocation
\$3,184,869 Gov't contribution
\$4,266,012 Total

VI.G.5

UNESCO

Brazil - Teaching of technology, University of Brasilia (BRA-9)

This is a new engineering school in Brazil that has no preconceived ideas or links with the traditional educational system in Brazil dedicated to educating engineers.

The objective is to prepare students in a Central Science Institute for specialized courses in engineering. After their training in the Central Science Institute, part of these students will enter the Faculty of Technology, to meet the needs of the country for professors, science teachers and scientific research personnel.

Operation of the project started in February 1967 and will continue until 1970. By mid-1968 there were nine experts serving the Government. The student enrolment is 527, which exceeds the number 370 foreseen in the plan of operation.

Duration: February 1967-1970

Estimated cost and

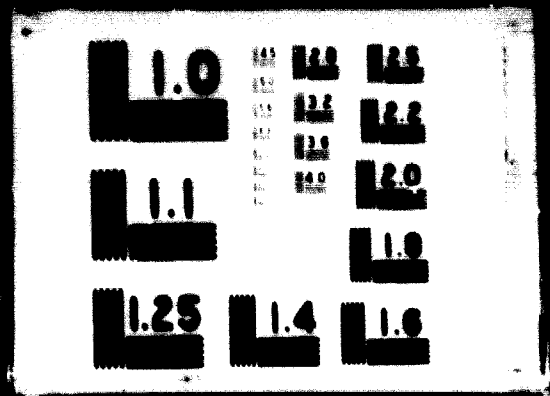
source of funds: \$1,354,711 UNDP/SF allocation
\$109,100 Gov't contribution (towards local operating costs)
\$4,395,481 Gov't contribution (in kind)

- VI.G.6 Brazil - Technical Assistance
A consultant chosen by the Government, advised the Technological Institute for Aeronautics on co-operative education.
Duration: 3 months; 1968
- VI.G.7 Cambodia - National School for Public Works, Building and Mining, Phnom Penh
The purpose of this project is the extension of an existing institution of increase its output of engineers, technicians, draughtsmen and operators.
Duration: 5 years; 1964-1969
Estimated cost and source of funds: \$758,000 UNDP/SF allocation
\$1,541,500 Gov't contribution
\$2,299,500 Total
- VI.G.8 Ceylon - Ceylon College of Technology
The purpose of this project is to expand the programme and facilities of the Ceylon College of Technology and to provide training for technicians and engineers in civil, electrical and mechanical engineering.
Duration: 6 years; 1965-1972
Estimated cost and source of funds: \$1,681,000 UNDP/SF allocation
\$2,569,600 Gov't contribution
\$4,250,600 Total
- VI.G.9 Chile - Universidad de Concepcion, Escuela de Ingenieria, Concepcion
The assistance provided under this project consisted of: 185 man-months of expert services (mechanical and electrical engineering) and 227 man-months of consultant service. (fluid mechanics, metallurgy, computation etc.), seventeen fellowships totalling 198 man-months in various specialities and \$677,000 of equipment for different laboratories and workshops. In 1968 the engineering student enrolment was 355 and the technician student enrolment 417.
Duration: November 1961 - August 1968
Estimated cost and source of funds: \$1,234,700 UNDP/SF contribution
\$1,445,783 Gov't counterpart contribution
\$2,680,483 Total

5 OF 10

D O

4 1 2 5



...the study was prepared by the Secretariat of the Steel Committee, twenty-eighth session, 1967. The study was published in 1968.

Authority: Steel Committee, twenty-eighth session, 1967

Duration: October 1965 - October 1967; the study was published in 1968

III.6
(1967 CR: VI.10)

ECI

The world market for iron ore

This study was co-sponsored by CIO (now UNIDO) and was prepared in co-operation with other regional economic commissions for submission as background material to the International Symposium on Industrial Development 1967. The study comprises an analysis of supply and demand for iron ore as well as the movements in international trade. It deals with the demand, production and trade in iron ore within, as well as outside of, the ECE region.

It contains a review of prospects for the world market for iron ore in the years 1970, 1975 and 1980. The study was discussed in detail at four meetings of the Ad Hoc Group of Rapporteurs on the World Market for Iron Ore, which met in January and October 1967.

Authority: Steel Committee, twenty-ninth session, March, 1963

Duration: 1964-1968

Source of funds: ECE budget and UNIDO contribution

III.7
(1967 CR: VI.11)

ECI

World trade in steel and steel demand in developing countries

This study was prepared for submission as background material to the International Symposium on Industrial Development 1967. The Ad Hoc Group of Rapporteurs on World Trade in Steel and Steel Demand in Developing Countries discussed at three meetings the contents and conclusions of the study, after which it was prepared for publication. The study covers trade production of steel products within, as well as outside, the ECE region. It was edited and sent to the printers in 1968.

Authority: Steel Committee, twenty-ninth session, March 1963

Duration: 1964-1968

Source of funds: ECE budget and UNIDO contribution

CONSTRUCTION AND BUILDING MATERIALS

XIV.1
(1967 CR: XIX.1
XIX.2)

E.A

Construction and building materials industry

The following studies were undertaken on the above subject:

- Africa - "The African building materials industry", paper prepared for the international workshop on Building Materials organized by the Centre for Housing, Building and Planning (UN Headquarters) and held in Moscow, 25 September - 10 October 1966
- Central Africa - "The construction industry in the development programmes of the central African countries"
 - "Faits et considerations sur l'industrie du ciment en Afrique centrale"
 - "Cement-based industries in the Central African subregion: development project 1963-1980"
- North Africa - "The construction industry in the development programmes of North Africa (1964-1980)"
 - "Le développement de l'industrie du ciment en Afrique du nord"
 - "Production of cement-based building material in the North African subregion"
 - "Asbestos cement products in North Africa"

Duration: 1969

XIV.2

ECA

Studies on housing missions

(For description see chapter XXII.C.1)

XIV.3

ECA

Regional meeting on housing finance

(For description see chapter XXII.C.5)

XIV.4

ECA

Working group of experts from the East African subregion

(For description see chapter XXII.C.4)

- XIV.7
(1967 OR: XVIII.1
XVIII.2)
- XIV.8
- XIV.9
- E.A. Industrial training course in Africa: self-help and co-operative housing
(For description see chapter XXII.1.1)
- E.A. Training course for African building contractors in the East African subregion
(For description see chapter XXII.1.2)
- ECA Ceramics, including glass and earthenware
(For description see chapter XV.1)
- EC/FE Seminar on Industrialization of Housing
Although the demand for housing and building has grown enormously during the last decade, the building industry in most countries of the ECAFE region has remained more or less stagnant, unaffected by the technological developments that have taken place. To meet this mass demand for houses, mass production techniques have to be adopted. The object of the seminar was to provide an opportunity to those in charge of the building industry to meet and discuss how quickly the building process in the developing countries could be industrialized.

National monographs, from sixteen countries participating in the seminar, on the status of the construction industry were exchanged. On the basis of these monographs, a document "The status, problems and prospects of prefabrication in the ECAFE region" was prepared and circulated. The final seminar report will be submitted to Governments for consideration and implementation.

Authority: Sub-committee on Housing, Building and Planning
Duration: 25 August - 14 September 1968
Estimated cost and source of funds: \$70,000; the Danish Government contributed \$30,600 and the OTC provided \$39,400 towards the cost of the seminar.
- ECE Annual study tour of the Committee on Housing, Building and Planning
Each year, after the completion of its annual session, the Committee departs for a study tour of about ten days to one or two of the countries participating in the ECE. The purpose of these study tours is, inter alia, to familiarize Committee members with the latest developments in the field of building materials and components, modern assembly methods and other building site processes.

XIV.6
(cont'd)

ECE Participants from developing countries are invited to participate in the study teams. In 1968, the committee and study teams organized in the cyclorotation field and the training of architects, Finland and Norway will be visited.

Authority: Committee on Housing, Building and Planning

Duration: About 10 days in June each year

Source of funds: ECE budget (host facilities are provided free of charge by the country visited)

XIV.10
(1967 CR: XIX.4)

ECE Production and use of building materials and components in developing countries

A study (document ME/52/67/D.4) was prepared by the ECE secretariat, in co-operation with a number of experts, to provide a background for the discussion of the building materials and components sector at the International Symposium on Industrial Development, held in Athens in December 1967. The ECE Committee on Housing, Building and Planning, at its twenty-ninth session, decided to recommend that the report on the study be published, if possible in printed form, as revised in the light of comments to be submitted by Governments. A sectorial summary paper, based essentially on the above-mentioned report, was prepared by the ECE secretariat and presented by UNIDO at the symposium as document ID/CONF.1/23. (In view of the fact that UNIDO is preparing a monograph on the same subject, discussions are underway between UNIDO and ECE about the possible cancellation of this publication.)

Authority: Request by the secretariat of UNIDO; decision by the ECE Committee on Housing, Building and Planning

Duration: July 1965 - February 1969

Estimated cost and

source of funds: \$15,000 from UNIDO consultancy budget and ECE current budget for 1968/1969

XIV.11
(1967 CR: XIX.5)

ECE Review of the structure activities and new developments in the building industry in ECE countries

National monographs were exchanged between countries participating in the ECE and the information received was summarized and analysed by the secretariat. The Sub-committee on the Building Industry of the Committee on Housing, Building and Planning recommended, at its third session in November 1967, that the report thus compiled by the secretariat be published, taking into account comments to be submitted by Governments. The Committee on Housing, Building and Planning endorsed this recommendation at its twenty-ninth session in May 1968.

Authority: Committee on Housing, Building and Planning

Duration: November 1964 - April 1969

XIV.13
(1967 CR: XIX.6)

ECE

Promotion of standardization and dimensional co-ordination in building

A supplement to the report Dimensional Co-ordination in Building - Current Trends in ECE Countries (document ST/ECE/HOU/37), published in 1967. Is being prepared for general distribution.

Authority: Committee on Housing, Building and Planning

Duration: February 1968 - January 1969

XIV.14
(1967 CR: XIX.7
XIX.8)

ECE

Second ECE Seminar on the Building Industry

The Second ECE Seminar on the Building Industry, devoted to a discussion of the future design, production and use of industrially made building components was held in Paris in April 1967. A report on the proceedings of the Seminar, containing, inter alia, more than 60 papers submitted by selected experts and Seminar participants, is being prepared by the ECE secretariat for publication. In connexion with the Seminar, a four-day study tour was organized to Lyon and Grenoble where several building component factories and construction sites were visited in order to provide participants with on-the-spot information on the latest developments in building technology and organization.

Authority: Committee on Housing, Building and Planning

Duration: August 1965 - December 1968 (including preparatory and follow-up work)

Source of funds: ECE budget (host facilities were provided free of charge by the Government of France)

XIV.15
1967 CR: XIX,
XIX.2

ECE

Study on the Role of Housing in Economic Development

At the request of the Committee on Housing, Building and Planning, a study on the role of housing in economic development was carried out by a group of experts from the countries of the ECE. In September 1967, a five-day study tour with four participants from the building industry of the countries of the ECE started at the building industry of the USSR. The study tour was organized by the Committee on Housing, Building and Planning. In addition, a seminar on housing experts, especially on the role of housing in economic development, is scheduled to be held in Moscow, 1968.

Authority: Committee on Housing, Building and Planning

Duration: November 1967 - spring 1968 (including preparatory and follow-up work)

Source of funds: ECE budget (host facilities will be provided free of charge by the Government of the USSR)

XIV.16

ECE

Seminar on Management, Maintenance and Modernization of Housing

Maintenance and modernization activities constitute a very considerable share of total building activities in ECE countries. How to promote productivity in this field was discussed at a Seminar held in Warsaw in September 1968. Practical experiences were studied and discussed on the spot at a five-day study tour that was organized in connexion with the Seminar.

Authority: Committee on Housing, Building and Planning

Duration: November 1967 - spring 1969 (including preparatory and follow-up work)

Source of funds: ECE budget (host facilities are provided free of charge by the Government of Poland)

XIV.17
(1967 CR: XIX.9)

ECE

Methods of estimating and programming the required growth of production capacity in the building industry

A scientific study of the methodology used in the programming of the building industry is being carried out by a group of rapporteurs, appointed by the Sub-committee on the Building Industry of the Committee on Housing, Building and Planning. The final report of the study, based on case studies of a few selected ECE countries, is expected to be published in 1969. The report will contain a brief summary with the main policy conclusions emerging from the study.

Authority: Committee on Housing, Building and Planning

Duration: April 1966 - June 1969

- XIV.18 ISA Development of traditional building methods
- Several studies have been prepared and technical assistance has been given to improve the efficiency of construction and lower its cost. Future studies to be done in collaboration with the specialized agencies, the regional economic commissions and other organizations will include: use of bamboo and reeds in house building; organization of building operations in Africa, Asia and Latin America; building costs in the Central American region; practical uses of building tools for increasing productivity in building; use of binding agents for house building in developing countries; availability of building materials in developing countries; and compilation of proposals made by experts in the field for improvement of traditional building methods.
- Authority:** General Assembly resolution 2036 (XX); Committee on Housing, Building and Planning work programme, 1968-1970
- Duration:** Continuing
- Estimated cost:** 1968 - 18 man-months (Professional)
4 man-months (Consultant)
-
- XIV.19 FAO The use of wood in housing
- (For description see chapter XXIV.13)
-
- XIV.20 IAEA Colombia - Neutron moisture gauging
- An expert in neutron moisture gauging visited Colombia for four weeks in 1968 to advise on the use of this instrument in road construction.
- Duration:** 4 weeks, 1968
- Estimated cost:** \$2,000
- Equipment cost:** \$5,500
-
- XIV.21 ILO Eighth Session of the Building, Civil Engineering and Public Works Committee
- (1967 CR: XIX.12)
- Apart from a General Report, two technical reports have been prepared dealing with: social aspects of prefabrication in the construction industry, and social problems in the construction industry arising out of the industrialization of developing countries.
- Authority:** Governing Body of ILO
- Duration:** Initiated in 1967, expected date of completion mid-1969 (the meeting was held from 30 September - 11 October 1968)
- Estimated cost and source of funds:** \$177,895 from ILO regular budget

- XIV.22
(1967 CR: IV.F.6)
- ILO
Tunisia - Building industry
(For description see chapter V.F.7)
- XIV.23
(1967 CR: XIX.11)
- UNESOR/
ESA/
UNIDO
Study on building materials industry
A provisional version of the study has been completed and issued as a working paper for the Interregional Seminar on Building Materials in Moscow, USSR, September 1968. If resources permit, it will be revised and elaborated.
Authority: General Assembly resolution 2036 (XX); ECOSOC resolution 1169 (XLI); IDB resolutions 4 (II) and 6(II)
Duration: Date of completion - September 1968
Estimated cost and source of funds: \$8,400 from UNESOB regular budget
- XIV.24
- UNIDO/
UNCHBP
Workshop on organizational and technological measures for the development of building materials
The above workshop was held in Moscow, USSR, from 25 September to 19 October 1968. It was organized by UNCHBP with the participation of UNIDO. UNIDO contributed nine papers prepared by consultants on different building materials.
Authority: IDB, 1968 (ID/B/20/Rev. 1, para 68)
Duration: 25 September - 19 October 1968
Estimated cost and source of funds: \$60,000 financed from the USSR rouble contribution
- XIV.25
(1967 CR: XIX.15)
- UNIDO/
UNCHBP
Interregional Seminar on the Development of Clay Building Materials Industries in Developing Countries
The Interregional Seminar on the above subject was held in Copenhagen, Denmark, under the joint sponsorship of UNIDO and the Government of the host country, with the participation of UNCHBP. Lecturers and 30 participants from twenty countries, together with observers and international and Danish experts, discussed technological and economic problems regarding the production and utilization of heavy clay products in developing countries.
The papers presented by the participants on issues relevant to their respective countries and the visits organized to plants, building sites, research and testing stations and training institutions, contributed substantially to the exchange of experience and ideas. A series of conclusions was reached and recommendations were formulated defining specific forms of technical assistance as well as guidance for policy makers and managers. The report will be circulated in 1969 to all Member States of the United Nations.

XIV.25
(1967 CR: XIV.11)

UNIDO

Authority: IDB, 1968 (ID/B/20/Rev. 1, Annex : para. 60, para. 68.)

Duration: 17-24 August 1968

Estimated cost and source of funds: \$50,000 voluntary contribution from the Government of Denmark

XIV.26
(1967 CR: XIV.11)

UNIDO

Studies on building materials

The following studies were prepared as background documentation for meetings to be held in 1969-1970:

- "Mineral wool, manufacture and uses"
- "Cement from gypsum"
- "Plastics as building materials"

Authority: IDB, 1968 (ID/B/20/Rev. 1, para. 69)

Duration: March - December 1968

Estimated cost and source of funds: \$3,200 from Consultant Funds

XIV.27

UNIDO

Review and publication of papers on building materials industries

In connexion with the Interregional Seminar on the Development of Clay Building Materials Industries in Developing Countries held in Copenhagen, and the workshop on organizational and technological measures for the development of building materials held in Moscow, papers were revised and issued on the following subjects:

- "Testing and evaluation of brick clays"
- "Sanitary ware from common clays"
- "Production and utilization of lightweight aggregates"
- "Small-scale manufacture of portland cement"
- "Puzzuolana cement"
- "Building lime, its properties, use and manufacture"
- "The development of a brick and tile industry in developing countries"

Authority: IDB, 1968 (ID/B/20/Rev. 1, para. 71)

Duration: March - December 1968

Estimated cost and source of funds: \$2,125 from Consultant Funds for revision of the papers; the publications were processed internally

XIV.28

UNIDO

In-plant group training programme - cement industry, Denmark

(For description see chapter VI.H.9)

UNIDO

The following field projects were completed in 1968:

			Expenditure (\$,000)	Experts (man-months)	Total (\$,000)
XIV.29	Bolivia	<u>Experimental production plant for asbestos processing, Cochabamba (80-10)</u>	SF		100,000 100,000 200,000
XIV.30	Bolivia	<u>Production of tiles and ceramics (68-296)</u>	SIS	1/6	17,000
XIV.31	Cyprus	<u>Establishing an asbestos pipe manufacturing plant (66-48)</u>	SIS	consultant firm	6,000
XIV.32	Libya	<u>Building materials research and products evaluation (9001-68)</u>	F-in-T	1/12	23,100
XIV.33	Madagascar	<u>Rehabilitation of brickworks industry (67-128)</u>	SIS	1/3	7,000
XIV.34	Nepal	<u>Survey for building and construction materials (83-65)</u>	TA	1/2	3,850
XIV.35	Papua and New Guinea	<u>Production of building and construction materials (216-67)</u>	TA	1/9	17,000
XIV.36	Romania	<u>Application of modern technology in the construction industry (134-64)</u>	TA	1/1	1,800
XIV.37	Rwanda	<u>Establishment of a cement factory (67-181)</u>	SIS	1/2	11,960
XIV.38	Somalia	<u>Commercial utilization of gypsum and seniolite (67-135)</u>	SIS	1/3	7,500
XIV.39	Turkey	<u>Cement granulating plant operation (67-55)</u>	SIS	1/7	11,800
XIV.40	Turkey	<u>Cement production using slags from iron and steel factories (67-55)</u>	SIS	1/6	13,600

XIV.41

WMO

Application of climatology to building

Formal liaison has been established with the International Council for Building Research, Studies and Documentation to study ways of applying climatology to building. One symposium was held in Vienna in May 1965 and another on urban and building climatology in Brussels in October 1968.

Authority: WMO resolution 5 (CC1-IV)Duration: Continuing

CHAPTER XV

CERAMICS INDUSTRIES, INCLUDING GLASS AND EARTHENWARE

XV.1
(1967 CR: XVIII.1
XVIII.2)

ECA

Ceramics, including glass and earthenware

The following studies were undertaken on the above subjects:

- Africa - "L'industrie des matériaux rouges et de la céramique en Afrique, la situation présente et le développement future". (This paper was presented by an ECA staff member at the Interregional Seminar on the Development of Clay Building Materials in Developing Countries, organized by UNIDO and the Government of Denmark and held in Copenhagen from 12 to 25 August 1968)
- Central Africa - "Le développement du verre en Afrique du Centre"
- "Le développement de la céramique en Afrique du Centre"
- "Le développement de l'industrie de la brique dans l'Afrique du Centre"
- "Le développement de réfractaires en Afrique du Centre"
- North Africa - "Le développement de l'industrie du verre en Afrique du Nord"
- "Le développement de la céramique en Afrique du Nord"
- "Le développement de l'industrie de la brique dans l'Afrique du Nord"
- "Le développement de réfractaires en Afrique du Nord"

Duration: 1968

XIII.
(1967 CR: VI.12)

EC

Productivity in the Iron and Steel Industry

The factors affecting productivity in the iron and steel industry of the European Community are being studied. Country studies were prepared for the Community by a group of experts on productivity in the iron and steel industry. A first draft of the report was prepared for the thirty-sixth session of the Committee in October 1965.

Authority: Steel Committee, thirty-third session, September 1965

Duration: 1965 - October 1965

XIII.9
(1967 CR: VI.15)

ECE

Problems relating to iron and steel scrap

At a first meeting in October 1967 an Ad Hoc Group of Experts on Scrap agreed upon an outline of the study as well as on a questionnaire and methods of work. A first draft of the report was considered at a second meeting of the Group in October 1968.

Authority: Steel Committee, thirty-fourth session, September 1968

Duration: 1967-1970

XIII.10

ECE

Problems of air and water pollution arising in the iron and steel industry

This study reviews the sources of pollution in the iron and steel industry, air and water installations used in the industry, and the cost aspects of cleaning installations. A first meeting of the Ad Hoc Group of Experts on Air and Water Pollution was held in March 1968. A first draft of the report will be considered in 1969 and will subsequently be revised in the light of comments received. Publication is expected towards the end of 1969 or the beginning of 1970.

Authority: Steel Committee, thirty-fourth session, September 1968

Duration: 1968-1970

XIII.11
(1967 CR: VI.17)

ECE

Trends in new uses of iron and steel products

UNIDO The following field projects were developed during 1968

			Pro- grams	Experts mths	Cost \$
XV.2	Algeria	<u>Improved operation of glassware industry (67-88)</u>	SIS	1/5	14,000
XV.3	Bolivia	<u>Plate glass manufacture (68-209)</u>	SIS	1/6	12,000
XV.4	Ceylon	<u>Operation of ceramic plant (20-57)</u>	TA	1/20	37,000
XV.5	Jamaica	<u>Utilization of local clays and glazing techniques (68-272)</u>	SIS	1/12	18,000
XV.6	Malawi	<u>Manufacture of pottery (68-293)</u>	SIS	1/3	6,200
XV.7	Mauritius	<u>Feasibility study on the establishment of a glass industry (67-231)</u>	SIS	1/2	7,000

CHAPTER XVI

CHEMICAL AND PHARMACEUTICAL INDUSTRIES

- XVI.1
(1967 CR: XV.1)
- ECA
- Chemicals and pharmaceuticals
- The following publications were issued on the above subjects:
- Central Africa - "Prospects for some consumer-oriented chemicals in the Central African subregion"
- "The significance and potential of the solar salt industry in Africa", prepared for the Expert Working Group on Modernization and Mechanization of the Salt Industry Based on Sea-water in Developing Countries, organized by UNIDO and held in Rome in September 1968
- North Africa - "Studie über die Entwicklung der chemischen Industrie für ausgewählte Produktgruppen in Nordafrika"
- "Dyeing, tanning and colouring materials and their future prospects in the North African subregion"
- Duration: 1968
-
- XVI.2
(1967 CR: XV.3)
- ECA
- Technical assistance
- At the request of the Government of Ethiopia, a staff member of ECA provided advice on costs of production levels for selected factories. The services of another staff member who, in 1967, had rendered assistance for appraisal of projects in the chemical industries group, were once again used in 1968.
- Duration: 1968
-
- XVI.3
(1967 CR: XXVI.2
XXVI.3)
- ECA
- Mining industries
- (For description see chapter XXVII.2)
-
- XVI.4
(1967 CR: XIII.1)
- ECA
- Petrochemical industries
- (For description see chapter XVII.1)

XVI.5
(1966 CR: XV.5)

ECE

Market trends and prospects for chemical products

In accordance with the request of the Commission of the European Communities, this study covers the production, consumption and foreign trade of chemical products and analyses the development of the chemical industry in the industrialized countries and prices of chemical products in the world market. The latest technological developments in the chemical industry and their impact on production and consumption are also covered. Forecasts have been made of production and consumption in the industrialized countries and existing national plans have been analysed in this context. A first draft of the study was prepared by the Group of Experts in January 1967. A revised version was discussed at a meeting of the Group in January 1968 and a final version was prepared in the light of comments received.

Authority: ECE decision 6 (XXII)

Duration: 1964 - July 1968

XVI.6
(1967 CR: XV.5)

ECE

Prospects for development of the chemical industry in developing countries of Africa, Asia and Latin America

The study covers production, consumption and foreign trade in chemicals in selected countries of Africa, Asia and Latin America in recent years. An assessment is made of the possibilities of, and obstacles to, the establishment of chemical industries in developing countries. The study was published in the course of 1968 as part II of the study on market trends and prospects of chemical products. (See chapter XVI.5.)

Authority: CID (now UNIDO) request to provide background material for the International Symposium on Industrial Development

Duration: 1965-1967 (the study was published in 1968)

Source of funds: ECE budget and UNIDO contribution

XVI.7
(1967 CR: XV.6)

ECLA

Advisory services - chemical industries

The regional adviser on chemical industries carried out several advisory missions in 1968 for the Andean subregional group, EAPTA and the Central American subregion. The mission for the Central American subregion was requested by the Central American Research Institute for Industry in connexion with a study of the evolution and development of the chemical industry in the countries of Central America. Its objective was to examine the future possibilities and implications of the Central American common market in relation to the rest of Latin America.

Duration: Continuing

Estimated cost: 1968 - 12 man-months

1968
1968-1969

1968
1968-1969

ECLA

Regional report on the sodium alkalis industry

The revision of this report, mentioned in previous reports, has been completed. The revised report was distributed in May 1968 under the title "The sodium alkalis industry in Latin America" (E/CN.12/804).

Authority: ECLA resolutions 137 (VII) and 162 (VIII)

Duration: 1968-1969

Estimated cost: 1968 - 12 man-months

1968
(1968-69: XVI.7)

ECLA

Regional report on the sodium alkalis industry

The revision of this report, mentioned in previous reports, has been completed. The revised report was distributed in May 1968 under the title "The sodium alkalis industry in Latin America" (E/CN.12/804).

Authority: ECLA resolutions 137 (VII) and 162 (VIII)

Duration: Completed in May 1968

Estimated cost: 1968 - 3 man-months

XVI.10

ESA

Studies in water desalination

Studies under this project include:

- A survey of all studies and projects undertaken in all Member States by governmental, international and private institutions
- A study on the relationship between the capacity of desalination plants and storage facilities including the examination of variations in seasonal water demand, relative costs of storage and peak production capacity and the economic of pre-building. This study, initiated in 1966 by a panel of experts which met at Headquarters, was published in 1968
- A study on water rate schedules applicable to desalinated water will deal with the modernization of water rates schedules, especially with regard to the advent of high cost desalinated water as the main source of supply. The study will be completed in 1969
- A study, to be completed in 1970, on the problems of water distribution in areas having desalinated water will deal with the economic aspects of single and double piping water systems
- Two additional studies in the field of water desalination will be undertaken in 1969. They will deal with techniques and economics of solar distillation and its application to developing countries and with the cost and possible use of contaminated water

XVI.10
(cont'd)

ESA

- A study of the economic implications of the projected demand for water with particular reference to desalination is scheduled for 1969.
- Two studies will deal with the utilization of energy sources for desalination, and will include the technical aspects of different desalination processes. These studies were commenced in 1968.

Authority: Council resolutions 1066 (XXXIX), 1114 (XL) and 1204 (XLI)

Duration: 1968-1969

Estimated cost: 1968 - 6 man-months (Professional)
25 man-months (Consultant)

XVI.11

ESA

Operational experience of water desalination plants
(For description see chapter XXI.C.1)

XVI.12

ILO

Seventh Session of the Chemical Industries Committee

Apart from a general report, two technical reports will be prepared dealing with the effects of advanced technology on employment and conditions of work in the chemical industries, and training and retraining of workers, technicians and engineers in the chemical industries.

Authority: Governing Body of ILO

Duration: Initiated in 1968 (the meeting will be held in 1969)

Estimated cost and

source of funds: \$154,773 from ILO regular budget

XVI.13

UNIDO

Expert Working Group on the Modernization and Mechanization of Salt Industries Based on Sea Water in Developing Countries

The Expert Working Group meeting was held in Rome, Italy, from 25 to 29 September 1968. Ten expert papers and eight country surveys were submitted and a visit was paid to the salt plant at Barletta. The Expert Working Group dealt with the various aspects of the manufacturing industries based on the extraction of salts from sea water, including their requirements in energy and equipment and the problems of appropriate construction materials. The conclusions and recommendations of the Group are being incorporated in a conference report which will be circulated to developing countries interested in sea salt manufacture with a view to improving processes and installations.

Authority: IDB, 1968 (ID/B/20/Rev. 1, para. 80)

Duration: 25-29 September 1968

Estimated cost and

source of funds: \$6,000 from UNIDO regular budget

XVI.14

UNIDO

Studies on marine salt

The technical papers and country surveys required for the expert working group meeting on marine salt (see chapter XVI.13) were commissioned by UNIDO in 1968 and will be published early in 1969. They will provide a useful source of information to developing countries wishing to improve their marine salt industries.

Authority: IDB, IDB (IDB/OP/Rev. 1), paras. 84, 85)

Duration: April - August 1968

Estimated cost and

source of funds: \$7,000 from Consultant Funds

XVI.15

UNIDO

Situation, problems and prospects of main industrial sectors

(For description see chapter IV.C.15)

UNIDO

The following field projects were developed during 1968

			Pro- gramme	Experts m/m	Cost \$
XVI.16	Brazil	<u>Solving problems related to the chemical industry (27-59)</u>	TA	1/12	21,000
XVI.17	Ceylon	<u>Improving the efficiency and quality of a plant producing caustic soda and chlorine (67-178)</u>	SIS	1/4	8,000
XVI.18	Dominican Republic	<u>Organization of laboratory and inspection services</u>	TA	1/12	15,000
XVI.19	Guinea	<u>Development of the chemical industry (149-61)</u>	TA	1/12	22,000
XVI.20	Haiti	<u>Establishment of an essential oils industry (8005-68)</u>	TA	1/4	7,700
XVI.21	Iceland	<u>Report on the manufacture of marine salts (67-115)</u>	SIS	1/2	2,050
XVI.22	Iran	<u>Development of pharmaceutical industry (220-57)</u>	TA	1/2	3,600
XVI.23	Israel	<u>Pharmacological research (243-57)</u>	TA	1/12	22,100
XVI.24	Kenya	<u>Feasibility of producing caustic soda (67-126)</u>	SIS	1/1	9,500
XVI.25	Mexico	<u>Pharmaceutical industry (190-65/Rev.1)</u>	TA	1/6	11,000
XVI.26	Philippines	<u>Research in industrial microbiology (79-57)</u>	TA	1/4	8,500
XVI.27	Poland	<u>Development of pharmaceutical industry (189-60)</u>	TA	1/1	1,800

XVI.28	Poland	<u>Fellowships in chemical industries (276-65)</u>	25						\$
XVI.29	Poland	<u>Fellowships in chemical industries (ID-83)</u>	25						\$
XVI.30	United Arab Republic	<u>Organic chemical industries (20-72)</u>	25						\$
XVI.31	Yugoslavia	<u>Fellowships in chemical and other industries (294-91)</u>	14						\$
XVI.32	Regional	<u>Evaluation of projects for new chemical industries (ID-495)</u>	REG						\$

XVI.33

WFP

Turkey - Expansion of nitrogen industry

The project aims at improving amenities for the workers and, by providing better meals at their canteens, at improving the workers' productivity. The savings realized through the use of food supplied by WFP are being employed to improve the canteen premises, to set up new vocational training centres and to better the social amenities of the workers. Approximately 2,950 workers receive the WFP assisted ration.

Duration: 3 years; became operational September 1965

Estimated cost: \$575,200

AP100
CONFIDENTIAL

ECA Petrochemical industries

The following studies were undertaken on the above subjects:

Africa - At the request of AIDOC, work on the preparation of a study on the development of the petrochemical industry in Africa has started. This paper is to be presented at the Second Interregional Conference on the Development of the Petrochemical Industry in Developing Countries being organized by UNIDO for the latter part of 1969.

Central Africa -
A study on basic chemicals and petrochemicals and fertilizers was ready before the end of 1968.

North Africa -
"Evolution des industries pétrolières et chimiques dans la sous-région Afrique du Nord" (includes petroleum refining).

Duration: 1968 - continuing

XVII.2

ECAFE

Training in petrochemical industries

The purpose of this project is to meet the great need for technical training in the field of petrochemicals as many countries in the region have plans for the development of the petrochemical industry. As the first step in implementing the project, a questionnaire was sent out to all Member and Associate Member Governments soliciting information on the present stage of the petrochemical industry in each country including plans for the establishment of new plants and expansion of the existing ones; the type of training desired for different categories of personnel, their number in each category and the duration of training required for each category of trainee. Based on the replies received, training programmes will be organized.

Authority: Action Group on Petrochemical Industries, 1967; AIDOC, third session

Duration: Initiated in May 1968 - continuing

Source of funds: Governments will have to bear the travel costs, subsistence and training costs of their respective trainees

XVII.5 2.14 Expert Group Meeting on the Development of the Petrochemical Industry in Developing Countries
(For description see report 2.15)

XVII.5 2.15 Expert Group Meeting on the Development of the Petrochemical Industry in Developing Countries
(For description see report 2.14)

XVII.5 2.15 Expert Group Meeting on the Development of the Petrochemical Industry in Developing Countries

Ten international specialists in plastic and petrochemicals attended the above Meeting held in Vienna from 11 to 13 November 1968. The Meeting was convened with the objective of assisting developing countries in dealing with the problems in the plastics industry. Particular attention was paid to areas requiring or receiving current technical assistance from UNIDO. Subjects for discussion covered such important aspects as the use of raw materials, production of intermediates and polymers, and application of plastics in different industries. Proceedings of the Meeting will be published in 1969 and presented for discussion at the 1969 petrochemical seminar.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 83)

Duration: 11-13 November 1968

Estimated cost and source of funds: \$5,000 from UNIDO regular budget

XVII.6

UNIDO

Preparatory meeting for the Second Interregional Seminar on the Development of the Petrochemical Industries in Developing Countries (1969)

The ten UNIDO consultants who attended the Expert Group Meeting on the Development of the Petrochemical Industry in Developing Countries also participated in the above preparatory meeting which ran concurrently with the Expert Group Meeting. The purpose of the preparatory meeting was to review those world petrochemical developments since the first petrochemical seminar in 1964 which would likely be of interest to developing countries, and to finalize the agenda for the 1969 seminar. To make the 1969 seminar effective and useful, this preparatory meeting was necessary. Topics for discussion included recent production and process technologies, trade and investment in petrochemicals and problems in the transfer of technology. The report will be presented for discussion at the 1969 petrochemical seminar.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 82)

Duration: 14-15 November 1968

Estimated cost and source of funds: \$4,000 from UNIDO

UNIDO

Studies on the production, consumption and trade in petrochemicals in the various regions of the world

This series of studies was conducted at the request of UNIDO by the regional economic commissions (ECA, ECAFF, ECF, ECLA) and UNISUP. The studies covered the period 1965 to 1968 and included projections for future world petrochemical development up to 1975. The studies will assist developing countries in planning future petrochemical development projects. They will be presented for discussion at the 1969 petrochemical seminar.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 86)

Duration: 6 months (October 1968 - March 1969)

Estimated cost and source of funds: \$5,000 from Consultant Funds

Series of studies on petrochemicals

A series of studies was undertaken in 1968 in the area of petrochemicals to provide materials in support of technical assistance activities in this field. The papers will also be presented for discussion at the petrochemical seminar to be held in 1969. The studies commissioned cover the following subjects:

- Problems of initial development of the petrochemical industry in developing countries (with case histories)
- Polymers and fabrication technology for developing countries
- The problems of transfer of technology in developing countries (with particular reference to patent and licensing agreements)
- Problems and possibilities in substitution of natural materials (such as wood, glass, metals, cotton and natural rubber) by petrochemical products
- Recent developments in production of some basic petrochemicals (new technologies developed since 1964 for the production of first generation petrochemicals)
- Production of fodder yeast from gas oil (proteins from petroleum), with special regard to technical assistance projects under consideration at present.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 87)

Duration: March-December 1968

Estimated cost and source of funds: \$6,000 from Consultant Funds

Study tours of the Steel Committee

Study tours are organized annually in conjunction with the plenary session of the Steel Committee to study the steel industry of the country concerned and to give participants the opportunity to acquaint themselves with progress made and problems encountered in the steel industry of the country visited. In 1966 a study tour was organized in the USSR, in 1967 in Italy, and in 1968 in Poland. Participation in these study tours is open to fellows from developing countries under a UNDP/IA fellowship programme.

Authority: Work programme, I [Steel Committee]

Duration: Annually, about 10 days (1968 16 days in Poland)

Source of funds: Participants, host country UNDP/IA

XIII.13
(1967 CR: VI.13)

ECE

Automation in the iron and steel industry

A report entitled "Economic aspects of computer control of the oxygen steelmaking process" was reviewed by the Steel Committee in October 1967, and was revised in the light of comments received. It was considered by a group of experts in October 1968 and was published the same year.

Authority: Steel Committee, thirty-fourth session, September 1966

Duration: 1966 - October 1968

XIII.14
(1967 CR: VI.15)

ECE

Review of the European steel market

This annual publication deals with trends within the world steel market, consumption and demand in Europe, external trade, production of pig-iron, crude steel and finished steel, the trend of prices, the growth capacity, raw materials development, current trends and future prospects. The provisional version for 1967 was reviewed by the Working Party of the European Steel Market at its 1968 session and was revised in the light of comments received. The final report on 1966 was published at the beginning of 1968. The report on 1967, published at the end of 1968, covers the steel market within, as well as outside of, the ECE region.

Authority: Steel Committee

Duration: First half of each calendar year. Report published end of 1968

XVII.9

UNIDO

Publication of the petrochemicals industry series
(monographs)

The studies cited below, completed in 1967, were conducted with the objective of assisting developed countries in establishing or developing an integrated plastics industry. Subjects covered included plastics production, fabrication, application and quality control. The studies are to be published as UNIDO monographs for sale in 1969.

- "Studies in plastics fabrication and application" (ID/SER.J/1)
- "Selection of projects and production processes for basic and intermediate petrochemicals in developing countries" (ID/SER.J/2)
- "The Brazilian synthetic polymer industry" (ID/SER.J/3)
- "Studies in the development of plastics industries" (ID/SER.J/4)
- "Establishing standardization of plastics in developing countries" (ID/SER.J/5)

Authority: UNIDO (CID) Work Programme 1967 (ID/B/20/Rev.1, para. 90)

Duration: 3 months

Estimated cost and source of funds: \$6,349 from UNIDO regular budget, 3 man-months

UNIDO

The following field projects were developed during 1968

			Pro- gramme	Experts m/m		Cost \$
XVII.10	Algeria	<u>Industrial and marketing surveys on petroleum derivatives and natural gas (A6-5)</u>	SF	2/4	UNDP Gov't Total	862,300 353,266 1,215,566
XVII.11	Argentina	<u>Control of chemical process operations using gas chromatographic techniques (11-57)</u>	TA	1/2		3,780
XVII.12	Bolivia	<u>Evaluating tenders for the installation of a petrochemical industrial complex (68-269)</u>	SIS	1/2 weeks		2,500
XVII.13	Brazil	<u>Tetraethyl lead production (67-228)</u>	SIS	2/4		12,000
XVII.14	Bulgaria	<u>Production of unsaturated polyester resins (269-65)</u>	TA	1/2		4,200
XVII.15	China	<u>Qualitative and quantitative analysis of synthetic fibres (10-599)</u>	REG	1/6		11,000

XVII.18	China	<u>Development of petrochemical products for industrial applications</u> <u>manufacture (117-118)</u>			
XVII.19	China	<u>Manufacture of synthetic fibers</u> <u>from ethylene glycol</u> <u>(11-112)</u>			
XVII.20	China	<u>Development of man-made fibre</u> <u>industry (11-112)</u>			15,000
XVII.21	Indonesia	<u>Rubber production techniques</u> <u>(43-57)</u>	TA	1/6	10,800
XVII.22	Iran	<u>Development of synthetic</u> <u>industry (270-272)</u>	TA	1/6	11,400
XVII.23	Libya	<u>Production of petrochemicals</u> <u>(9001-68)</u>	i-in-i	1/12	23,100
XVII.24	Nicaragua	<u>Evaluation of a petrochemical</u> <u>project based on indigenous</u> <u>surplus hydrochloric acid</u> <u>(67-109)</u>	SIS	2/6	2,400
XVII.25	Rwanda	<u>Uses of methane gas (68-323)</u>	SIS	1/11 days	400
XVII.26	Singapore	<u>Improvement of plastic</u> <u>products design (68-333)</u>	SIS	1/6	11,000
XVII.27	Turkey	<u>Development of petrochemical</u> <u>engineering (277-57)</u>	TA	1/12	21,600
XVII.28	Venezuela	<u>Survey for the petrochemical</u> <u>institute (68-295)</u>	SIS	3/3	7,000
XVII.29	Yugoslavia	<u>Problems of polymer production</u> <u>(294-57)</u>	TA	1/2	3,400
XVII.30	Yugoslavia	<u>Hydrotreatment of lubricating</u> <u>oils; improvement of the octane</u> <u>number of gasoline and production</u> <u>and quality control of petro-</u> <u>chemicals (68-345)</u>	SIS	4/20	37,400

CHAPTER XIII

FERTILIZER PROJECTS

XVIII.1
(1967 CR: XIII.1)

ECA

Petrochemical industries

(For description see chapter XIII.1)

XVIII.2

ECAFE

Sources of mineral raw materials for the fertilizer industry in Asia and the Far East

The purpose of this project is to assist the developing countries of the ECAFE region in guiding their efforts towards the discovery and exploitation of new sources of fertilizer minerals. The Seminar on Sources of Mineral Raw Materials for the Fertilizer Industry in Asia and the Far East, which was held in Bangkok from 4 to 11 December 1967, outlined specific recommendations that:

- A panel of experts be formed to guide and direct efforts in the search for fertilizer mineral raw materials;
- One or two centres be set up for the testing and analysis of ore samples;
- Study and training facilities be arranged.

Action is being taken on the recommendations of this Seminar.

Authority: Committee on Industry and Natural Resources, nineteenth session, 1967; ECAFE, twenty-third session, 1967

Duration: Initiated in 1967, expected date of completion 1970

Estimated cost and

source of funds: Regular ECAFE budget. OTC funds of \$15,000 have been utilized for travel and subsistence for specialists from the region and for one specialist from abroad to participate in the Seminar. One regional adviser is to be financed by OTC in 1969 and experts are to be provided by industrial countries on a non-reimbursable basis

(1968: 004)

IIA

Supply of fertilizer in Latin America

Contact has been maintained with the Working Group on Fertilizers of the Inter-American Committee of the Alliance for Progress. Changes in the projects for new plants and the indeterminate state of a large number of these projects have prevented more progress being made on the revision and updating of the previous report on "The supply of fertilizers in Latin America" (E/CN.12/761 - November 1966). In 1968 work was continued on the task of observing the progress of current projects and on the execution of studies, and appropriate comments have been made to the Working Group on Fertilizers.

Authority: ECLA resolutions 137 (VII) and 162 (VIII)

Duration: 1968 - continuing

Estimated cost: 1968 - approximately 3 man-months

XVIII.4

FAO

FAO's programme and projects on fertilizers

FAO promotes the efficient use of fertilizers to increase crop production in developing countries. This work starts at the factory gate when the fertilizer is locally manufactured, or when the imported fertilizer is landed on the docks, and includes field experimentation and trial marketing, distribution, establishment of credit services and development of pilot projects in co-operation with Member Governments and local farmers.

FAO as the executing agency is operating UNDP/SF projects on increasing farm production through fertilizer use in Chile, Iran, Korea (Rep. of), the Philippines and Thailand and will soon begin similar projects in Ghana and Nepal. Soil fertility experts are engaged in similar work in other UNDP/SF projects in Argentina, Cuba, Ethiopia, Panama, Syria and Uruguay and in UNDP/TA posts in Afghanistan, Burma, Cambodia, Cuba, the Dominican Republic, Nepal, Pakistan and Paraguay.

The FAO Fertilizer Programme, begun in March 1961, now covers 26 countries in five developing regions of the world and is financed by the fertilizer industry and some FAO member governments. During the first seven years, some 115,000 fertilizer trials and demonstrations were laid out in farmers' fields, and the number planned for the eighth year is over 24,000. Pilot schemes on fertilizer distribution, marketing and credit have been initiated in thirteen countries.

In the pilot schemes, which may range in size from small localized ones to country-wide operations, a few hundred tons of fertilizer are provided to the Government under the auspices of FAO, either directly from industry contributions or through bilateral sources. Under FAO supervision the fertilizers are distributed to farmers for cash or on credit, and are used according to the recommendations developed in the field demonstrations. The receipts from sales form a "Fertilizer Revolving Fund", administered by the Government, which is then

- XVIII.4
(cont'd) FAO
- used to buy additional fertilizer, as experience is gained, and industrial production requisites and the nature of the crop.
- FAO also collects regularly, world-wide statistics on fertilizer production, consumption and trade.
- XVIII.5 FAO
- Fertilizers and pesticides industries
- The programmes and projects of FAO on fertilizers and pesticides are to promote the efficient use of suitable fertilizers and pesticides in order to increase crop production. When proper formulations have been adopted and identified, these projects are expected to lead to local manufacturing, thus requiring close FAO/UNIDO co-operation.
- XVIII.6 UNIDO
- Ad Hoc Expert Group Meeting from Fertilizer Deficit Countries
- The purpose of this Meeting, held in Vienna from 6 to 10 May 1968, was to identify the inhibiting factors that retard the growth of the fertilizer industry in developing countries and to make recommendations on how to overcome them. It is a fact that many developing countries are unable to grow sufficient food to feed the population. As fertilizer is an essential element in agriculture, many countries import the needed fertilizer to supplement their local production. Both the importation and local production are hampered by shortage of foreign exchange. Hence, experts and consultants from developing and developed countries met to discuss the problem. Five experts from fertilizer deficit countries and five consultants from fertilizer surplus countries attended the meeting.
- Authority: IDB, 1968 (ID/B/20/Rev.1), para. 95(a)
- Duration: Vienna, 6-10 May 1968
- Estimated cost and source of funds: \$10,000 from UNIDO regular budget
- XVIII.7 UNIDO
(1967 CR: XIV.12)
- Fertilizer production, technology and use (publication of Kiev seminar papers)
- The technical papers presented at the Interregional Seminar on the Production of Fertilizers held in Kiev, Ukrainian Socialist Soviet Republics, from 24 August to 11 September 1965, were printed in 1968 as ID/2 in English, French and Spanish. *
- Authority: IDB, 1968 (ID/B/20/Rev.1), para. 100
- Duration: 1968
- Estimated cost and source of funds: \$28,000 from UNIDO Publication funds

10/10/68
1968-1969

Fertilizer Manual (also see XIV.9.1)

The Fertilizer Manual, which was published in English in 1967, was translated during 1968 into French and Spanish. The English version was sent to resident representatives in 89 countries to bring it to the attention of the Governments and to promote interest in technical assistance requests.

Authority: IDB, 1968 (ID/3/70/Rev.1, para. 100)

Duration: 1968

Estimated cost and

source of funds: \$4,000 from UNIDO Publication Funds

XIV.9
(1967 (R: XIV.9)

UNIDO

Action oriented research and sectoral studies (publications)

The following monographs are to be published in English, French and Spanish under the Fertilizer Industry Series in 1969:

- "Creation, evaluation and establishment of successful fertilizer projects" (ID/SER.F/1)
- "Guide to building an ammonia fertilizer complex" (ID/SER.F/2)
- "Reduction of sulphur needs in fertilizers" (ID/SER.F/3)
- "Ammonium chloride and soda-ash dual manufacturing process in Japan" (ID/SER.F/4)
- "New process for production of phosphate fertilizer." (ID/SER.F/5)

The studies given in ID/E/23, XIV.9(a), (b) and (c) are to be published as monographs No.2, No.4, and No.5. Two titles have been added as No.1 and No.3. Item (d) in ID/E/23, XIV.9 was dropped as the data on production and consumption of fertilizers, using the Compertz equation, could not be projected.

The purpose of these monographs is to transmit modern technology and to highlight processes which reduce the use of sulphur in fertilizer production. The processes described are of vital interest in planning fertilizer production in developing countries. The monographs were prepared by outside consultants.

Authority: IDB, 1968 (ID/3/20/Rev.1, para. 101)

Duration: 9 months

Estimated cost and

source of funds: \$6,401 from UNIDO Publication Funds and 9 man-months

Reports on meetings related to fertilizers

The reports of meetings were compiled, edited and arranged for printing during 1968. These reports comprise 21 documents which contain conclusions and recommendations of interest to developing countries. The first two reports were prepared by staff members and the third was done in collaboration with an outside consultant editor. The documents are listed below:

"Fertilizer production in six selected countries with good natural gas resources - report of the Ad hoc Expert Group" (ID/5)

"Report of Ad hoc Expert Group from Fertilizer Deficit Countries" (ID/13)

"Monograph on the fertilizer industry" based on the Interregional Symposium on Industrial Development, Athens, 1967

Authority: ID/5 - UNIDO Work Programme 1966
ID/13 - IDB, 1968 (ID/B/20/Rev.1, para. 95(a));
Monograph Athens Symposium - UNIDO budget 1968, Section XI

Duration: ID/5 - 3 months
ID/13 - 6 months
Monograph Athens Symposium - 3 months

Estimated cost and

source of funds: ID/5 - \$1,200 from UNIDO Publication Funds
ID/13 - Processed Internally
Monograph Athens Symposium - \$2,500 from Consultant Funds

XVIII.11
(1967 CR: XIV.10)

UNIDO

Activities in co-operation with other United Nations agencies and regional economic commissions - Studies in the fertilizer field

Three studies were completed in 1968 for publication in 1969:

"Critical evaluation of different nitrophosphate processes" (ID/SER.F/6)

"Study on the utilization of by-product gypsum for manufacture of sulphuric acid" (ID/SER.F/7)

"Study on the supply and demand position of fertilizers in ECLA regions" (ID/SER.F/8)

The first paper is of special interest as, through the nitrophosphate processes, fertilizers can be produced with little or no sulphur. In view of the high prices and the world shortage of sulphur, many developing countries are studying and evaluating these processes. The second paper deals with the substitution

XVIII.11
 Consultant

UNIDO

of sulphur with gypsum. The first two studies were carried out by outside consultants and the third by ECLA.

Authority: IDB, 1968 (ID/B/20/rev.1, para. 97,98)

Duration: ID/SER.F/6 = 2 months
 ID/SER.F/7 = 6 months
 ID/SER.F/8 = 3 months

Estimated cost and source of funds: \$7,500 from Consultant Funds

XVIII.12

UNIDO

Survey of fertilizer production facilities by regions (Africa)

The regional survey of fertilizer production facilities in Africa, in terms of capacity, types of products, location processes etc., was prepared in 1968. The purpose of the survey was to identify countries and regions where there were good potentials for development of the industry and possibilities to attract foreign investment. The East African region was covered by a staff member and the North and West African region by an outside consultant. The final draft was sent for clearance to FAO and ECA.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. 96)

Duration: April-December 1968

Estimated cost and source of funds: \$5,000 from Consultant Funds

UNIDO

The following field projects were developed during 1968

			Pro- gramme	Experts n/a	Cost \$
XVIII.13	Congo (Dem. Rep. of)	<u>Fertilizer production and marketing</u>	REG	1/1 week	500
XVIII.14	Ecuador	<u>Organic materials and compost fermentation for fertilizers (67-236)</u>	SIS	1/12	24,000
XVIII.15	Guinea	<u>Production of organic fertilizers (67-197)</u>	SIS	1/1½	4,000
XVIII.16	Indonesia	<u>Problems of superphosphate plant operation (68-379)</u>	SIS	3/3	5,800
XVIII.17	Israel	<u>Fellowships in fertilizer industry (243-57)</u>	TA	1/6 (1/6 fellows)	5,200
XVIII.18	Madagascar	<u>Nitrogen fertilizers production and export possibilities (67-192)</u>	SIS	1/1½	4,000

			Year	Period	Cost
XVIII.19	Pakistan	<u>Pre-investment studies for the promotion of the fertilizer and petrochemical industries (PAK-5)</u>	1	1/4	1,000,000
XVIII.20	Peru	<u>Formulation of projects for the production of nitrogen, phosphate and potash fertilizers (190-5)</u>	4	1/6	1,111,111
XVIII.21	Rwanda	<u>Pilot plan for industrialization and pyrethrum production, Mukingo (RWA-3)</u>	1	1/4 (NDP (6/36 Gov't fellows)	1,486,800 1,280,300 Total 2,766,800
XVIII.22	Sudan	<u>Ammonia and urea fertilizer plant specifications (67-152)</u>	SIS	1/3	7,000
XVIII.23	Syria	<u>Possibilities of further assistance to the fertilizer industry (67-204)</u>	SIS	1/1 week	481
XVIII.24	Syria	<u>Evaluation of tenders for a triple superphosphate project (68-270)</u>	SIS	1/2	5,000
XVIII.25	Syria	<u>Nitrogen fertilizer project (68-300)</u>	SIS	2/18	34,100
XVIII.26	Syria	<u>Study of fertilizer requirements and urea production (68-325)</u>	SIS	1/6	11,000
XVIII.27	Uganda	<u>Fertilizer industry: investment and market arrangement (68-324)</u>	SIS	1/1 week	1,000
XVIII.28	United Arab Republic	<u>Urea and ammonium sulphate projects preparation (67-57)</u>	SIS	1/10 days	3,700

CONTENTS

PESTICIDE ADMINISTRATION AND CONTROL

XIX.1

FAO

FAO Regular Programme activities

Provision is made in the Regular Programme for biennial meetings of the FAO Committee on Pesticides in Agriculture and annual meetings of its three associated working parties on pesticide residues, official control of pesticides and pest resistance to pesticides. All working parties met during 1968 and documents relating to these meetings will be published during 1969. From the FAO Working Party on Pesticide Residues (meeting jointly with the WHO Expert Committee on Pesticide Residues) two documents will be published:

- Report of the 1968 Joint Meeting of the FAO Working Party and WHO Expert Committee on Pesticide Residues
- 1968 Evaluation of some pesticide residues in food

The FAO Working Party on Official Control of Pesticides will issue:

- Guidelines for legislation concerning the registration for sale and marketing of pesticides
- Specifications for pesticides

The Report of the fourth session of the FAO Working Party on Pest Resistance to Pesticides is also to appear in 1969.

Duration: 1968-1969

XIX.2

FAO/WHO

Brazil - Expansion of the work on pesticides at the Biological Institute of Sao Paulo (BRA-24)

The purpose of this project is to expand the work on pesticides at the Biological Institute of Sao Paulo, Brazil. The work will include investigation of locally available raw materials for the production and formulation of pesticides, development of analytical procedures for the chemical determination of pesticides and residues, evaluation of the toxicity and effectiveness of pesticides, and appropriate field evaluations of new products.

Five specialists in pesticides and pesticide chemistry, one WHO specialist in mammalian toxicology and various short-term consultants have been assigned to the project. The project manager, a pesticides formulation chemist and two short-term consultants took up their duties during 1968. All expert posts

XIII.15

ECLA

Second interregional symposium on iron and steel industry

ECLA prepared documents for an interregional symposium on iron and steel industry, which was held in Moscow from 19 September to 9 October 1968. The first document, "Present status and future development of the iron and steel industry in the Latin American countries", analysed the production and consumption of steel in Latin America, as well as the capacity of the various iron and steel departments of the integrated plants existing in this region. The second document, "Economic of scale in the steel industry", described the influence of the scale of operations on investments and production costs in iron and steel works operating under Latin American conditions. It defined the minimum and optimum economic plant sizes, and considered how various Latin American iron and steel plants stand in relation to these dimensions.

Duration: Moscow, 19 September - 9 October 1968

Estimated cost: 1968 - 4 man-months

XIII.16

ECLA

The iron and steel industry in the relatively less-developed countries

The aim of this study is to examine the possibilities for the development of the iron and steel industry in the relatively less-developed countries of the region, particularly the Central American countries, Ecuador, Bolivia and Paraguay. The study deals with such aspects as demand and its trends, existing steel production resources, the situation and characteristics of the iron and steel enterprises, alternative technical structures for iron and steel development, and proposed plants and projects. The study was begun about the middle of 1968 and is scheduled for completion within one year. The field work and the compilation of preliminary reports and other material for the Central American countries has been completed, and the first draft of the report on this area is being prepared. Later, work will be continued on the other countries involved in this project.

Duration: Mid-1968 to mid-1969

Estimated cost: 1968 - approximately 10 man-months

XIII.17

ECLA

Technological research in the Latin American iron and steel industry

(For description see chapter XXX.A.10)

XIX.2
(cont'd)

FAO/WHO

were filled by the end of 1968. Although this project has not been initiated, the investigations carried out by the pesticides formulation chemist have already identified certain locally available emulsifiers which are now being incorporated in pesticide formulations by local Brazilian formulators.

Duration: 27 March 1968 - 1972

Estimated cost and

source of funds: \$1,074,700 UNDP/SF (for laboratory equipment and facilities)

\$597,168 Gov't counterpart contribution

XIX.3

FAO

United Arab Republic - Central Agricultural Pesticides Laboratory (UAR-24)

The purpose of this project is to assist in the development of local resources for the manufacture and formulation of pesticides, to test the effectiveness of pesticides in the laboratory and in the field, and to provide technical advice on manufacture, application and marketing control of pesticides. This project includes the construction and equipping of a modern laboratory building (already accomplished) together with the installation of climate control equipment which is expected to be completed in early 1969.

Duration: April 1962 - June 1970

Estimated cost and

source of funds: \$741,200 UNDP/SF allocation

\$1,224,469 Gov't contribution

\$408,500 for equipment

UNIDO

The following field projects were developed during 1968

		Pro- gramme	Experts n/m	Cost
XIX.4	Iran	<u>Feasibilities of manufacturing phosphorous-based pesticides (68-352)</u>	SIS	1/2 2,200
XIX.5	United Arab Republic	<u>Demonstration pesticides production plant based on chlorine and bromine resources (UAR-69)</u>	SF	UNDP 1,053,600 Gov't 1,253,000 Total 2,306,600

XIX.6

WHO

Model law for the official control of pesticides, Rome

(For description see chapter XXXII.B.28)

CHAPTER XX

FOOD PROCESSING INDUSTRIES, INCLUDING THOSE
BASED ON ANIMAL AND PLANT PRODUCTS

XX.1
(1967 CR: XVI.2
XVI.3)

ECA

Food industries, including beverages etc.

The following studies were undertaken on the above subjects:

Central Africa - "Beverage industries in Central Africa: economic measures and future prospects"

- "Tobacco manufacture in Central Africa: economic measures and future prospects"

- "Perspectives de production et de consommation du sucre en Afrique centrale"

- "Rapport sur les industries alimentaires en Afrique centrale"

North Africa - "Beverage industries in North Africa: economic measures and future prospects"

- "Tobacco manufacture in the North African subregion"

- The Food Processing Industries of North Africa
(Part I) (E/CN.14/INR/145)

West Africa - An investigation on food processing industries to be undertaken by ECA in collaboration with FAO and with assistance from the Netherlands Government, for Ghana, the Niger and the Upper Volta, is expected to begin in the near future.

Duration: 1968

XX.2

ECAFE

Coconut Research and Development Regional Institute in the ECAFE region

(For description see chapter XXX.B.4)

XX.3

FAO

Publications - Food processing industries

The following publications were issued in 1968:

- E. Parry World Outlook for Cashew Nuts

- J.G. Thione Coconut Oil Processing in Rural Industry, FAO Agricultural Development Paper No. 89.

Duration: 1968

- XX.4 FAO Abattoir management
FAO operated a five-week training course in Copenhagen on abattoir management with 21 participants.
Duration: 5 weeks; 1968
Source of funds: F-In-T
- XX.5 FAO FAO Technical Working Party on Coconut Production, Protection and Processing
The third session of this FAO Working Party, held in Jogjakarta, Indonesia, was attended by representatives from fifteen member countries and numerous observers. The Working Party unanimously requested the re-establishment of the Regional Coconut Improvement Project which was abolished at the end of 1966.
Duration: 9-19 September 1968
- XX.6 FAO FAO/International Rice Commission Working Party on the Agricultural Engineering Aspects of Rice Production, Storage and Processing
The fifth session of this FAO Working Party, held in Kandy, Ceylon, was attended by 62 participants from fourteen member countries and eighteen observers. Emphasis was placed on high yielding early maturing varieties requiring extensive measures of farm mechanization, on artificial drying, improved storage, and better milling facilities.
Duration: 5-9 September 1968
- XX.7 FAO Meeting of FAO/WHO/UNICEF Protein Advisory Group (PAG)
The members of this Group who met in Rome included specialists in marketing and industrial processing. The meeting was particularly concerned with the expanded activities of PAG. The Group is expected to advise the participating organizations on questions of industrial processing and marketing of protein-rich foods.
The Group prepared its comments on the report by the Secretary-General of the United Nations on the protein problem. In future, the Group may advise on broad aspects of over-all programmes as regards the world protein needs. The Group reviewed the present situation of protein food activities in Africa and the general problems of marketing and promotion of protein foods.
The process by which protein-rich foods can be obtained from cottonseed was found promising. The Group reviewed the present status of its guidelines for the quality and processing of protein-rich foods and decided that this work should be continued.
It was decided to establish ad hoc working groups on marketing, single-cell protein and amino-acid fortification of foods.
Duration: 9-14 September 1968

- XX.8 FAO/IFAD Algeria - Processing and marketing of grapes and raisins
A marketing expert is assisting local co-operatives north of Kabul in the improvement of grape marketing and in the processing of raisins destined for export.
Duration: 1968 - continuing
- XX.9 FAO/WHO Africa - regional project, meat inspection
The FAO/WHO Training Centre for Meat Inspectors in Nairobi, initiated in 1967, has been extended until 1973 as a UNDP/TA and, subsequently, F-in-T project.
Duration: Date of completion 1973
- XX.10 FAO/WHO/
 UNICEF Algeria - Protein-rich food industry development
FAO, in co-operation with WHO and UNICEF, assisted in the development, manufacturing and commercial distribution of a protein-rich food mixture for infants and children. A production line for 800 to 1,200 tons per year has been erected at the Blida pasta factory of SEMPAC (government owned chain of pasta manufacturing plants). This line is now ready to produce enriched pasta products for the school feeding programmes of the country. FAO and UNICEF continue to assist the project in the field of commercial promotion and distribution.
Duration: 1968 - continuing
Estimated cost and source of funds: \$400,000 total agency contribution to this project, with an almost equal counterpart contribution from SEMPAC
- XX.11 FAO Algeria - Cold storage and processing industries
An expert assisted in the development of marketing facilities and agencies, including cold storage and economic aspects of location of processing industries. Another expert advised on agricultural planning, including supply and processing industries.
Duration: 1968
Estimated cost and source of funds: \$ 6,900 UNDP/TA allocation (for first expert)
\$43,860 UNDP/TA allocation (for second expert)

XX.12

FAO

Argentina - Milk processing plant, San Vicente, Mendoza

To exact advice on the best location for a milk processing plant in the Vieja Hill plant and processing of milk and milk products.

Duration: 1965 - continuing

Source of funds: UNDP-FA

XX.13

FAO

Bolivia - Vegetable oil extraction plant, San Ignacio, East Bolivia

In the region of Chiquitos much of the vegetation that could be used for the production of vegetable oils for human consumption remains unexploited. At present cooking fats are provided from animal sources. The purpose of this project was to provide expert knowledge and the equipment to install a small pilot oil extraction plant in San Ignacio and to train local technicians in its best use and maintenance. (Plant continues to be operated by the locally trained workers.)

Duration: Completed in 1968

Estimated cost and

source of funds: \$10,000 FFHC contribution from Austria

XX.14

FAO

Brazil - Tropical Centre of Food Research and Technology, Campinas (BRA-10)

The purpose of this project is to contribute to the development of the Tropical Centre of Food Research and Technology through the establishment of a vegetable products section. The Centre is to become a permanent national institution for the promotion and development of food storage and processing and will provide research and testing services as well as training in food technology for public and private industrial enterprises throughout Brazil.

Seven specialists in food technology and processing of industrial food, edible vegetable oil, chemical analysis, juices and concentrates of fruits and vegetables and microbiology of foods have been assigned to the project. In addition, 180 man-months of fellowships are available for this project.

Duration: December 1964 - 1969

Estimated cost and

source of funds: \$772,200 UNDP/SF allocation
\$2,170,349 Gov't counterpart contribution
\$308,000 for equipment

- XX.15 FAO Burundi - Dairy industry development
A dairy technologist assisted in the organization of a milk plant for processing of liquid milk and manufacture of butter and cheese.
Duration: 1968
Estimated cost and source of funds: \$12,900 UNDP/TA allocation
- XX.16 FAO Cambodia - Dairy industry development
A dairy technologist assisted in the establishment of a small pilot milk plant in Phnom Penh.
Duration: 1968
Estimated cost and source of funds: \$15,700 UNDP/TA allocation (funds for plant equipment were made available partially under FFHC contributions)
- XX.17 FAO Central African Republic - Dairy industry development
The purpose of this project is to advise on milk plant management and dairy technology with emphasis on butter and cheese making.
Duration: 1968 - continuing
Estimated cost and source of funds: \$424,000 UNDP/TA allocation
- XX.18 FAO/WFP Central America (GAFICA) - Grain storage facilities and marketing
An FAO consultant is investigating the economic feasibility of increasing grain storage facilities, particularly in the light of marketing requirements. This work is carried out in connexion with possible WFP grain deliveries.
Duration: 1968 - continuing
- XX.19 FAO Central America (GAFICA) - Grades, standards, feasibility processing industries
A marketing expert is assisting the GAFICA countries in drawing up grades and standards for agricultural products (grains, livestock, fruit and vegetables) and carrying out feasibility studies for the establishment of processing facilities.
Duration: 1968 - continuing
Source of funds: UNDP/TA

XX.20

FAO

Chad - Handling, storage and transport of crops

A marketing expert is advising the Government on the commercialisation of improved handling methods for major crops, including storage and transport.

Duration: 1968 - continuing

Estimated cost and source of funds: \$10,750 UNDP/TA allocation

XX.21

FAO

Chad - Food technologist

A food technologist is assisting the Government in the development of the food industry.

Duration: 1968 - continuing

Estimated cost and source of funds: \$19,000 UNDP/TA allocation

XX.22

FAO

Chad - Installation of a poultry breeding centre in Fort Archambault and of a rendering plant for slaughterhouse offals in Fort Lamy

This project is included in the Five-year Plan of the Government. Experts are installing equipment for the rendering of slaughterhouse by-products in order to process blood, meat and bone meal to be used as mixed feed for the poultry industry. Furthermore, a centre has been established with 6,000 egg incubation equipment and a capacity for 1,300 breeding hens. This centre accommodates ten to fifteen trainees for a training and demonstration programme that includes poultry husbandry, reproduction of improved poultry breeds as well as the training of local technicians in the operation of the by-products processing plant.

Duration: 1965-1969

Estimated cost and source of funds: \$18,100 UNDP/TA allocation (for the expert)
\$198,000 Gov't contribution
\$195,000 FFHC contribution from Switzerland

XX.23

FAO

Chile - Institute of Food Science and Technology, Santiago (CHI-15)

The purpose of this project was to strengthen existing facilities of the Faculty of Agriculture, University of Chile, in the field of food technology in order to serve the country's food processing industries through research, training, quality control and technical advice.

The research work of the Institute is directed towards the solution of technical problems related to the processing of food products in the various parts of the country with emphasis on

XX.23

FAO

ability, improvement and reduction of costs. A marketing consultant is active in the study of demand for prepackaged food, primarily with a view to introducing retailing through general stores and supermarkets. In addition to conducting academic courses in food technology, the Institute is training managers and technical and supervisory personnel employed in the food industry.

Duration: 30 April 1965 - 30 April 1968

Estimated cost and

source of funds: \$474,400 UNDP/TA allocation
\$748,407 Gov't counterpart contribution
\$121,000 for equipment and supplies

XX.24

FAO

Chile - FAO regional dairy training course for Spanish-speaking countries in Latin America

Duration: 1968

Estimated cost and

source of funds: \$119,200 UNDP/TA allocation and F-in-I from Denmark

XX.25

FAO

Chile - Dairy Industry development

An expert and an associate expert are assisting in dairy technology and advising on management problems with emphasis on cheese making and milk powder manufacture. Another associate expert (dairy technology) will assist the expert in 1969.

Duration: 1968-1969

Estimated cost and

source of funds: \$21,950 UNDP/TA allocation

XX.26

FAO

China - Programme for development of livestock production on marginal land in Taiwan (CHA-19)

This FAO/UNDP(SF) project on livestock development provided assistance on dairy technology and milk plant management; priority has been given to liquid milk processing.

Duration: 1968

Source of funds: UNDP/SF

XX.27

FAO

China - Food Processing Institute, Peking (ACC)

The purpose of the project is to expand the activities of the laboratory, set up by the former Agricultural Machinery Service, to a full-scale food processing institute with a view to improving the efficiency and output of the country's food processing industries and to co-ordinate the efforts and activities of other pertinent agricultural, industrial and commercial agencies towards this end.

The project includes applied research to help the industry develop new products, to introduce new processing methods and to improve the quality of present processed foods. Advisory services are provided to the Government and food industry regarding the need for government measures and the training of personnel in pertinent government and industry agencies. In addition, demonstrations and training seminars are organized to improve the efficiency of management at all levels, and feasibility studies are carried out to advise on product development and new processing procedures. Finally potential markets will be evaluated, with emphasis on exports.

During the first phase a secretariat office and three departments on food science and technology, food microbiology and food chemistry, will be developed. In the second phase, three additional departments on food engineering, extension and service, and economic evaluation will be established.

The project provides for internationally recruited experts including a food technologist, a processing engineer, a quality control and nutrition expert, an economics and extension expert, and fellowships.

Duration: 1967-1971

Estimated cost and

source of funds: \$829,200 UNDP/SF allocation
\$1,082,100 Gov't counterpart contribution
\$385,000 for equipment

XX.28

FAO

Colombia - Institute for Training and Research in Agricultural Marketing, Bogota (COL-14)

The Institute continued to carry out surveys on marketing infrastructure for agricultural produce in Colombia and in some neighbouring countries. These surveys included assessment of necessary processing capacity, storage, transport and so on. In particular, a pre-investment survey for a fruit processing plant for Incora, a survey on the sugar industry and surveys on wholesale markets and grain storage networks in Colombia were completed. UNDP/SF support to the Institute is likely to continue through 1969.

Duration: 5 years

Estimated cost and

source of funds: \$807,900 UNDP/SF allocation
\$918,182 Gov't contribution

XX.29

FAO

Colombia - Faculty of Veterinary Medicine and Animal Husbandry, National University of Bogota (COL-18)

An expert will be advising on the construction of a milk plant, the installation of equipment and the processing of milk and milk products.

Duration: 1968 - continuing

Source of funds: UNDP/SF

XX.30

FAO

Cyprus - Livestock slaughtering facilities and marketing

A marketing consultant advised the Government on the reorganization of the livestock and meat marketing system with emphasis on the reallocation of slaughtering facilities.

Duration: 1968

Source of funds: UNDP/TA

XX.31

FAO/UNICEF/
FFHC

Dahomey - Establishment of two poultry breeding centres in Cotonou and Kpinou

The purpose of this project was to increase the capacity of the poultry station in Cotonou, to install a rearing station in Kpinou and to develop and process mixed feed. Provision was made for the establishment of poultry houses for 600 breeders, the installation of incubators for 5,000 eggs and the establishment of a feed mixing plant and rearing houses for the production of 2,500 laying pullets per month. Furthermore, the project provided training at various levels, including modern management methods.

Duration: 1965-1968

Estimated cost and

source of funds: \$36,400 Gov't contribution
\$29,500 FFHC contribution from France
\$55,000 from UNICEF

XX.32

FAO

Dahomey - Assistance to Produce Marketing Board (OCAD)

A marketing expert assisted OCAD whose functions consist of provision and operation of processing and storage facilities, chiefly for maize and groundnuts. Investigations were conducted for construction of silos to hold 3,000 tons of maize, two groundnut shelling plants, a warehouse and a pilot cashew decorticator.

Duration: 1963-1966

Estimated cost and

source of funds: \$23,300 UNDP/TA allocation

XIII.18 ILO

Interregional Seminar on Hydrology

This Seminar will deal with the problems of the extraction of minerals from their ores and their treatment by reaction with the place in water or organic solvent. Intensive research and experimental work has been under way in different countries and have been reported that will be of great importance to developing countries. Originally, the Seminar was planned for 1968 but since no Member Government agreed to act as host country to the Seminar, it had to be postponed to 1969.

Authority: Council resolutions 349 (XII) and 492 (XXXIII)

Duration: 1968-1969; completion date: 1969

Estimated cost: 3 man-months (Professional)
3 man-months (Consultant)
2 man-months (Regional adviser or
Interregional adviser)

XIII.19 ILO

Eighth session of the Iron and Steel Committee

Apart from a General Report, two technical reports will be prepared dealing with: the role of employers and workers organizations in programming and planning in the iron and steel industry; wage protection and income security for workers in the iron and steel industry.

Authority: Governing Body of ILO

Duration: Initiated in 1958 (the meeting will be held during the second half of 1969)

Estimated cost and source of funds: \$164,773 from ILO regular budget

XIII.20 ILO

China - Metal Industries Development Centre

The purpose of the project is to assist the Government to establish a Metal Industries Development Centre which, through its central and extension services, will promote the growth and development of the metal industries throughout the country. These services will include the provision of demonstrations, training, applied research and consultations in support of metal industries development, and in particular the promotion of co-operative arrangements (sub-contracting) between smaller industries and between smaller and larger undertakings so as to develop a rational industrial structure whereby small, medium and large-scale metalworking establishments can contribute to the best advantage.

XX.33

FAO

Dominican Republic - Animal production and veterinary training, Autonomous University of Santo Domingo (AUS)

A dairy expert assisted in the operation of the University's milk plant which was expanded under this project.

Duration: 1968

Source of funds: UNDP/SF

XX.34

FAO/UNICEF

Ethiopia - Dairy plant

An expert in milk plant management and an associate expert were assigned to Ethiopia for this joint FAO/UNICEF project which aims at the improvement and enlargement of milk processing facilities in Addis Ababa.

Duration: 1968

Estimated cost and

source of funds: \$9,000 UNDP/IA allocation; dairy equipment was provided by UNICEF

XX.35

FAO

Ghana - Food research and development unit (GHA-7)

The purpose of this project is to assist the Food Research Institute in carrying out a co-ordinated programme of applied research in the storage, processing, preservation and marketing of foods with the aim of contributing towards the development of the food industries of the country. The Institute is playing an advisory role in assisting the Government in planning and implementing its policy of developing national food industries and increasing agricultural productivity.

The programme of work includes surveys of the food industries to determine which would be most desirable to develop based on local agricultural and fisheries products and essential imports. The programme also includes applied research through laboratory and pilot-scale investigations on processing, preservation, storage, marketing and utilization of the main foods of the country. Particular attention is given to the development of appropriate standards of safety and quality and to the requirement, where necessary, of modifying food processing methods used elsewhere. Numerous food samples are being analysed for their composition and nutritive value.

The project has reached a stage where the results gained from initial research and collection of necessary background information are put into practice with a view to implementing food production and processing on an industrial scale as well as assisting existing establishments.

The internationally recruited experts include: a food technologist and specialists in food processing, meat processing, storage of plant products, food analysis, food marketing and consumption, food marketing, food laws and standards, starchy roots

XX.35

FAO

processing, also its dairy-products processing, food engineering and fruit and vegetable processing. A total of 1.1 man-months of field work is provided for this project.

Duration: 30 September 1965 - 30 September 1970

Estimated cost and

source of funds: \$488,100 UNDP/SF allocation

\$2,668,720 Gov't counterpart contribution

\$100,000 for equipment and supplies

XX.36

FAO

Greece - Fruit and vegetable grading

Following previous surveys on livestock and meat marketing as well as fruit and vegetable production and processing, a marketing expert was reassigned to the country to assist in the implementation of some of the proposals made, in particular the establishment of grading facilities for fresh fruit and vegetables.

Duration: 1968 - continuing

Source of funds: F-in-T

XX.37

FAO

India - Dairy industry development

An expert is advising on matters of dairy engineering with emphasis on layout and maintenance of milk plants (cost \$18,950). A second expert is advising on the manufacture of evaporated and condensed milk, especially from buffalo milk (cost \$16,250). Another FAO expert is advising the National Dairy Development Board, particularly as regards management training (cost \$11,550).

Duration: 1968 - continuing

Estimated cost and

source of funds: \$46,750 from UNDP/TA allocation

XX.38

FAO

India - Farm and community grain storage development (IND-85)

The purpose of this project is to assist the Government of India in implementing a development programme to reduce the present losses in wastage of food grains. In addition to collecting data on the nature and extent of losses, the project will help to improve techniques and storage methods on farms and in commercial storages. The project includes also construction of efficient medium and small-sized storage facilities as models, using local material where practicable, and the training of personnel in the fabrication of these units at various levels, in grain storage and handling as well as in demonstrating recommended storage methods to farmers' co-operatives and other local grain handling organizations.

The field stations, located in main producing areas, will carry out independent programmes adapted to local requirements.

XX.38
(cont'd)

FAO

Special training courses will be established in the next few years for officers, field instructors, and extension workers, specialized technicians and manufacturers of grain storage facilities.

The experts provided for this project include one grain storage specialist (project manager), storage design engineer, two storage engineers, an extension specialist and various consultants.

Duration: 5 years; initiated in February 1968

Estimated cost and

source of funds: \$1,195,400 UNDP/SF allocation.
\$420,783 Gov't counterpart contribution (in kind)
\$472,000 for equipment and supplies

XX.39

FAO

India - Poultry industry, establishment of five hatcheries

This project provided for the installation of five hatcheries, each of 50,000 eggs capacity, in five states of India.

Duration: 1968

Estimated cost and

source of funds: \$103,500 FFHC contribution from Australia (for equipment)
\$400,000 Gov't counterpart contribution (in land, buildings, services, etc.)

XX.40

FAO

Indonesia - Rice processing

A rice-processing specialist assisted on the re-establishment of the Krawang Rice Processing Station.

Duration: 6 months; 1968

Source of funds: UNDP/TA

XX.41

FAO

Iran - Marketing assistance for food processing industries

A marketing expert is assisting the Government in reorganizing the marketing system. He has carried out a study on the Teheran slaughterhouse, on the sugar beet industry and is now formulating proposals for the improvement of the fruit and vegetable supplies to the large urban centres.

Duration: 1968 - continuing

Source of funds: UNDP/TA

- XX,43 FA Iraq - Dairy industry development
- A dairy development adviser assisted the Government in its programme of dairy development, including matters related to dairy policy, as well as technical assistance in the field of processing and management.
- Duration: 1968
- Estimated cost and source of funds: \$16,700 from UNDP/FA allocation
-
- XX,44 FAO Iraq - Establishment of wholesale market
- Two consultants were assigned to assist the Baghdad authorities in drawing up detailed blueprints for the establishment of a wholesale market. The proposals made are now being discussed and it is hoped that the market will soon be constructed.
- Duration: 1968
- Source of funds: UNDP/TA
-
- XX,44 FAO Iraq - Dairy industry development
- An expert assisted and advised the Government as regards operating and supervising the cheese department of the Baghdad milk plant.
- Duration: 1968
- Estimated cost and source of funds: \$11,550 from UNDP/TA allocation
-
- XX,45 FAO Jamaica - Food crops development and marketing feasibility survey (JAM-6)
- A team of experts is investigating the present production, processing and marketing pattern for horticultural products, excluding bananas and pineapples. The long-term aim is to improve the fresh market supply for the domestic market and to improve the processing industry so that it can operate on a more economic basis for both domestic and foreign markets.
- Duration: 1968 - continuing
- Source of funds: UNDP/SF

XX.46

FAO

Jordan - Assistance in the field of
marketing, Amman, Jordan

one of the major activities of the project is the introduction of modern handling, grading and packaging techniques for vegetables. Three packing plants were established for the production of tomatoes and one for citrus fruits, with a total capacity of 100,000 MT. Apart from this, the project staff have been studying the feasibility of expanding the fruit and vegetable production capacity of the country. Assistance will be provided to the Government through studies on the location and expansion of slaughterhouse facilities in Amman. Negotiations for the extension of the project for a period of ten months are under way and it is expected that a second phase will follow.

Duration: 4 years

Estimated cost and

source of funds: \$640,100 UNDP/SF allocation
\$354,232 Gov't contribution

XX.47

FAO

Kenya - Dairy industry development

A technologist and an associate expert are assisting in the organization of rural dairy development schemes with emphasis on demonstrations, quality control and dairy technology.

Duration: 1968 - continuing

Estimated cost and

source of funds: \$13,100 UNDP/TA allocation

XX.48

FAO

Kenya - Dairy industry development.

An expert is assisting in milk plant management with special attention to the problems of organizing the milk producers and rationalizing milk collection procedures.

Duration: 1968 - continuing

Estimated cost and

source of funds: \$6,400 from UNDP/TA allocation

XX.49

FAO/UNICEF

Kenya - Dairy training

The object of this project is a diploma dairy training course.

Duration: 1968 - continuing

Estimated cost and

source of funds: \$21,600 from UNDP/TA allocation

- XX.50 FAO Kenya/Uganda - Regional dairy training courses for English-speaking countries in Africa
Duration: 1968 - continuing
Estimated cost and source of funds: \$91,000 F-in-T from Denmark
- XX.51 FAO Lebanon - Dairy industry, regional (Near East) dairy training courses
Duration 1968 - continuing
Estimated cost and source of funds: \$88,050 F-in-T from Denmark
- XX.52 FAO Libya - Food processing industries
An expert is advising and assisting the Government in the development of industries for agricultural raw material processing through such measures as: operation of the date-syrup plant and further development work on date syrup and other date products; technical supervision of the maintenance of the citrus processing plants and introduction of new citrus products; the technical establishment of two five-ton per hour livestock feed mixing plants; the further development of the tomato processing factory located in Dert; planning the establishment of a fruit juice factory; continued training of counterparts and other personnel assigned and advice on the proper staffing of the government enterprises.
The expert also organizes regular quality control tests during processing and packing operations, with special reference to the introduction of hygienic control measures.
Duration: 1968 - continuing
Source of funds: F-in-T
- XX.53 FAO Madagascar - Dairy development
In 1968 an expert and an associate expert assisted the Government in the development of milk production, collection from the rural areas and distribution to the consumers. Assistance was given to the Tananarive milk plant in the field of technology and management.
Two more associate experts (dairy technology and animal husbandry) will assist the work of the expert in 1969.
Duration: 1968 - continuing
Estimated cost and source of funds: \$23,000 from UNDP/TA allocation

XX.54

FAO

Malawi - Dairy Development

An expert is assisting the Government in dairy development and the development of the dairy industry.

Duration: 1967-continuing

Estimated cost and

source of funds: \$1,500,000 UNDP/FAO allocation

XX.55

FAO

Malawi - Improvement of Livestock and Dairy Production (MAL-5)

Two dairy experts and two associate experts will advise and assist the Government as regards the preparation of a detailed dairy development plan, the determination of the sites for milk collection centres, the operation of a pilot and mobile pasteurization plant (to be made available under bilateral assistance from the United Kingdom), and an extension work on milk handling and collecting among the local producers.

Duration: Continuing

Source of funds: UNDP/SF

XX.56

FAO

Malaysia - Food Technology Research and Development Centre (MAL-9)

The purpose of the project is to assist in establishing a Food Technology Research and Development Centre in order to carry out applied research on problems relating to the handling, storage, processing and marketing of locally produced foods, and to provide advice and training in these fields to personnel from the Government and from industry at all levels.

In particular the project will pay attention to the commercialization and expansion of the already established industry so as to increase productivity. It will also explore investment opportunities for the development of new food industries. The main activities of the project will be carried out at the Centre located at Serdang. Four pilot stations will be established to serve as demonstration units; they are to be utilized for training purposes.

Eleven internationally recruited FAO experts and 141 man-months of fellowships are provided for this project.

Three participants in short-term courses of the FAO International Food Technology Training Centre, Mysore City, India, are part of this project.

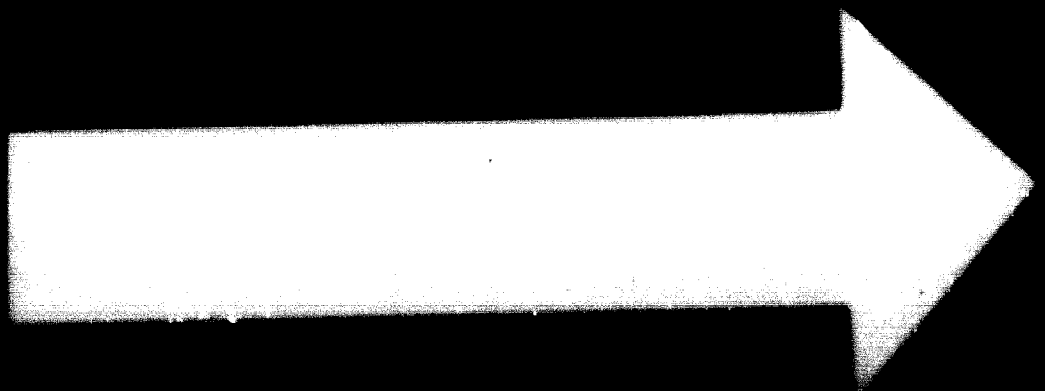
Duration: 1967-1972

Estimated cost and

source of funds: \$1,171,700 UNDP/SF allocation

\$1,170,000 Gov't counterpart contribution

\$280,000 for equipment



16. 7. 74

... activities...
... practices; and...
... involved...
... the...; providing...
... to all interested parties.

Authority: Government request

Duration: 5 years; 1968-1972

Estimated cost and

source of funds: \$848,000 UNDP SF allocation
 \$715,450 Gov't counterpart contribution
 \$1,564,256 Total

XIII.21
(1967 CR: V.H.6)

• ILO

Syria - Vocational training in the metal trades including apprenticeship

(For description see chapter VI.B.107)

XIII.22

UNESCO

India - National Institute of Foundry and Forge Technology at Ranchi, Bihar

(For description see chapter VI.D.2)

XIII.23

UNIDO

Studies on the technical and economic aspects of the development of iron and steel industries in developing countries

Eight studies were commissioned under this general heading and seven were prepared in time to be presented at the Second Interregional Symposium on the Iron and Steel Industry, 1968. The studies covered aspects of particular interest to planners of steel industries in developing countries.

Authority: IDB, 1968 (ID/B/20/Rev.1, para. c.)

Duration: February-August 1968

Estimated cost and

source of funds: \$4,800 from Consultant Funds

1975
1976

1977
1978

Report of the first meeting of an expert consulting group on the
aluminum industry - (ID/46.12/1)

The report on this meeting, held at UNIDO headquarters in 1967, was published in 1968. This report contains recommendations and guidelines to UNIDO and to developing and developed countries for establishing, improving the efficiency of operations of, and expanding alumina and aluminium industries in developing countries.

Authority: IDB, 1968 (ID/B/20/Rev. 1, para. 65)

Duration: November 1967 - July 1968

Estimated cost and

source of funds: The report was processed internally

XIII.25
(1967 CR: VI.23)

UNIDO

Second Interregional Symposium on the Iron and Steel Industry

The Second Interregional Symposium on the Iron and Steel Industry was held in Moscow from 19 September to 9 October 1968 under an agreement with the Government of the host country. Two hundred participants from 51 countries attended, and 78 papers were presented and discussed. Plant study tours in the host country as well as in Czechoslovakia, France, India, Poland and the United Kingdom were organized. The Symposium examined the prerequisites for the development of steel industries on regional and inter-regional basis, the optimum capacity and stages of construction and the expansion and modernization of iron and steel plants. A report on the Symposium, containing recommendations for future action, was approved. The report will be published in 1969 and distributed to developing countries. The proceedings will be published shortly afterwards.

Authority: IDB, 1968 (ID/B/20/Rev. 1, paras. 60, 61)

Duration: 19 September - 9 October 1968

Estimated cost and

source of funds: \$150,000 from UNDP/TA

XIII.26
(1967 CR: VII.7)

UNIDO

Report of the first meeting of an expert consulting group on the
copper industry - (ID/46.12/7)

The report on this meeting, held at UNIDO headquarters in 1967, was published in 1968. This report contained recommendations and guidelines to UNIDO and to developing and developed countries for creating, improving the efficiency of, and expanding plants in the copper industry.

Authority: IDB, 1968 (ID/B/20/Rev. 1, para 65)

Duration: November 1967 - July 1968

Source of funds: The report was processed internally

- XIII.19 UNIDO Study of iron and steel industry in developing countries
(For description see chapter IV.C.12)
- XIII.20 UNIDO Situation, problems and prospects of iron industrial sector
(For description see chapter IV.C.13)
- XIII.29 UNIDO Expert group meeting on metalworking as a potential export industry in developing countries
(For description see chapter II.C.32)
- XIII.30 UNIDO Development of metalworking industries as potential export industries
(For description see chapter II.C.31)

UNIDO The following field projects were developed during 1968

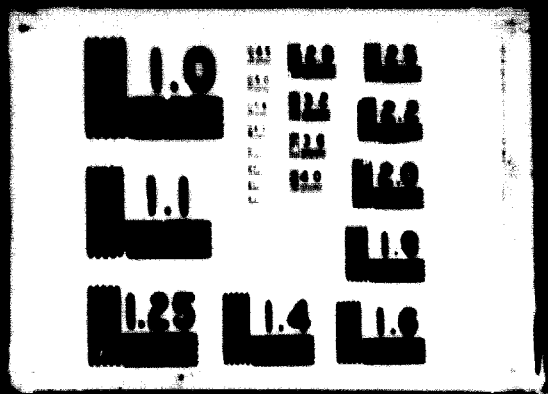
			Pro- grams	Experts m/m	Cost \$
XIII.31	Argentina	<u>Evaluating resources of non-ferrous ores and minerals (111-57)</u>	TA	1/3	5,670
XIII.32	Argentina	<u>Steel production and rolling (111-57)</u>	TA	1/3	5,670
XIII.33	Argentina	<u>Establishment of aluminium industry (68-286)</u>	SIS	1/5	12,000
XIII.34	Argentina	<u>Steel products marketing (111-57)</u>	TA	1/6	5,400
XIII.35	Bulgaria	<u>Automation of ore dressing (269-65)</u>	TA	1/2	4,200
XIII.36	Ceylon	<u>Extraction of TiO₂ from heavy beach sand (68-285)</u>	SIS	1/3	9,000
XIII.37	China	<u>Manufacture of clinker using local magnesite and dolomite (67-182)</u>	SIS	1/6	15,000
XIII.38	Congo (Brazzaville)	<u>Development programme for metallurgical industries (67-159)</u>	SIS	2/6	16,000
XIII.39	India	<u>Industry investment survey in metallurgy (37-57)</u>	TA	5/38	65,330
XIII.40	India	<u>Survey and utilization of the titanium products industry (67-242)</u>	SIS	3/3	10,500
XIII.41	India	<u>Steel foundry operation (37-57)</u>	TA	1/12	22,000
XIII.42	Indonesia	<u>Installation and initial operation of a cold steel wire drawing mill (68-322)</u>	SIS	1/6	11,000
XIII.43	Indonesia	<u>Use and maintenance of steel plant equipment (67-214)</u>	SIS	1/1	3,500

			Fin - grants	Exports 1/r	Cost \$
XIII.44	Iran	<u>Development of non-ferrous metals industries (270-57)</u>	TA	1/6	11,400
XIII.45	Iran	<u>Economic evaluation of an aluminum reduction plant (68-410)</u>	SIS	5/4	10,500
XIII.46	Jordan	<u>Establishment and initial operation of a steel rolling mill (66-12)</u>	SIS	1/12	23,100
XIII.47	Liberia	<u>Analysis of data and execution of steel project (67-133)</u>	SIS	1/12	28,000
XIII.48	Liberia	<u>Advisory services for steel project (67-64)</u>	SIS	1/4	30,000
XIII.49	Liberia	<u>Steel project study (66-26)</u>	SIS	Consulting firm	110,000
XIII.50	Mali	<u>Evaluation of proposed specific industrial projects (6-66)</u>	TA	1/13½	15,000
XIII.51	Pakistan	<u>Evaluating iron and steel project proposals (68-261)</u>	SIS	1/6	16,000
XIII.52	Romania	<u>Fellowships in metallurgy (ID-876)</u>	REG	2/6 (fellows)	2,400
XIII.53	Senegal	<u>Expansion and development of aluminum foundries (67-191)</u>	SIS	1/12 (1/6 fellows)	28,600
XIII.54	Syria	<u>Supervision of erection and initial operation of a steel rolling mill (68-306)</u>	SIS	1/14	26,500
XIII.55	Turkey	<u>Establishment of a forging plant (277-57)</u>	TA	1/4	7,200
XIII.56	Turkey	<u>Survey of iron and steel industry and improvement of operations (67-195)</u>	SIS	1/6	15,000
XIII.57	Turkey	<u>Establishment of alumina and aluminum plant (68-313)</u>	SIS	4/18	36,500
XIII.58	Turkey	<u>Installation of a barite ore grinding mill (67-212)</u>	SIS	1/1	4,500
XIII.59	United Arab Republic	<u>Exploitation of heavy black beach sand (67-234)</u>	SIS	3/4½	15,000

6 OF 10

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4 1 2 5



XX.57

FAO

Yall - Dairy industry development

An expert is assisting in the establishment of a milk processing plant in Yamako. This includes supervision of the equipment installation, the organization of milk collection, processing and delivery. An associate expert will assist the FAO expert in 1969.

Duration: 1968-1969

Estimated cost and

source of funds: 1968 - \$13,900 from UNDP/TA allocation
equipment to be provided
by UNICEF

XX.58

FAO

Haiti - Development of milk and beef production (UK-47)

Two dairy experts are advising and assisting the Government as regards the planning of the dairy industry, the management of milk plants and the processing of milk and milk products.

Duration: 1968 - continuing

Source of funds: UNDP/SF

XX.59

FAO

Mexico - Training, research and extension in animal husbandry at the School of Agriculture (ITESA), Monterrey (MEX-12)

A dairy expert is carrying out studies and demonstrations for the manufacture of new milk products, lecturing to students and demonstrating basic dairy technology and quality control of milk products.

Duration: 1968 - continuing

Source of funds: UNDP/SF

XX.60

FAO

Nicar - Dairy industry development

An expert is advising the Government on the establishment of a milk processing plant in Manay; this includes supervision of the equipment installation, the organization of milk collection, processing and delivery, and the training of local personnel. An associate expert will assist the expert in 1969.

Duration: 1968-1969

Estimated cost and

source of funds: \$18,800 from UNDP/TA allocation; equipment to
be provided by UNICEF

XX.84

IAEA

The use of radiation for crop protection

In response to government requests, technical and financial support were given in 1968 to the construction, installation and assistance in planned research programmes for crop protection by irradiation in Algeria, Argentina, Chile, Colombia, Costa Rica, India and Thailand.

Duration: 1968

XX.85

IAEA

Food irradiation technology I.A.A

A Panel on the Enzymological Aspects of the Application of Ionizing Radiation to Food Preservation was convened in Vienna in April 1968. The Panel stressed the need for further research work to elucidate the mechanisms of the radio-resistance of enzymes and to develop methods for controlling residual enzyme activity in food preserved by irradiation. The meeting was attended by twelve experts from eight countries and one international organization. A report of this meeting is in preparation.

Duration: 8-12 April 1968

Estimated cost: \$5,000

XX.86

UNCTAD/
GATT(ITC)

The Market Information Service

(For description see chapter II.C.13)

XX.87

UNIDO

Seminar on integrated food processing

As UNIDO had received about twenty requests from developing countries for the establishment of agro-industrial combines, a seminar was held in Novi Sad, Yugoslavia from 4 to 27 November 1968. The Seminar provided the representatives of industry and governmental departments from developing countries with an opportunity of getting acquainted in practice with the latest methods of production and organization regarding agro-industrial combines in a country where this form of vertical integrated food processing had already reached an advanced stage.

Twenty-three participants from developing countries were present at the seminar, attending lectures and discussing the twenty papers presented. They also visited various Yugoslavian agro-industrial combines and food processing plants.

The texts of the lectures will be compiled in a manual on integrated food processing which will be edited, published and circulated in 1969.

XX, 10
11/17/77

UNIDO

Authority: IDB, 1968; International Symposium on Industrial Development (IDB/INT-68, Annex I, para. 11)

Duration: 1-27 November 1968

Estimated cost and

source of funds: \$25,000 from UNDP, IA

\$2,500 from Consultant Funds

\$23,000 voluntary contribution from the Gov't of Yugoslavia

XX, 10
(1967 CR: XVI, 11)

UNIDO

Food Industry Series (information papers)

This series of studies focuses on specific problems of food processing, gives guidelines for the selection of equipment and describes the most modern methods employed in the industry.

The series was initiated in 1968 with the preparation of the following papers: "The use of centri-therm, expanding-flow and forced-circulation plate evaporators in the food and biochemical industry" (ID/SER.1/1); "Industrial processing of citrus fruit" (ID/SER.1/2); "Water saving techniques in food processing plants" (ID/SER.1/3); and "Milk processing in developing countries" (ID/SER.1/4). Four other papers entitled "Packaging, packaging materials and techniques in developing countries" (ID/SER.1/5); "Production of foodstuffs and protein enriched mixtures and concentrates" (ID/SER.1/6); "Starch production in developing countries" (ID/SER.1/7); and "Problems of grain processing in developing countries" (ID/SER.1/8) are being prepared.

The papers will be distributed to all the organizations dealing with the establishment and the operation of food industries in developing countries.

Authority: IDB, 1968 (ID/B/20/Rev.1)

Duration: 1968

Estimated cost and

source of funds: \$4,600 from Consultant Funds; 28 man-months

XX, 10

UNIDO

Papers for a meeting on refrigeration techniques

As a contribution to the Expert Group Meeting on Refrigeration Techniques and Equipment Standards, the following papers were prepared during 1968:

- "Fish preservation, processing and distribution in developing countries"
- "Milk preservation, processing and distribution in developing countries"
- "Problems of meat processing and distribution in developing countries"

XX.91
(cont'd)

- "Investigation of the possibilities of using vegetable oil in the food industry."
- "Investigation of the possibilities of using vegetable oil in the food industry."
- "Investigation of the possibilities of using vegetable oil in the food industry."
- "Investigation of the possibilities of using vegetable oil in the food industry (including yeast)."

These studies describe various technical developments, with special emphasis on refrigeration, in the early 1960s and opportunities prevailing in developing countries and suggest solutions to specific problems. They will be discussed during the meeting and will be published and distributed among the various organizations in developing countries dealing with food processing and distribution. The Expert Group Meeting will be held early in 1969, instead of 1968 as originally scheduled.

Authority: ID# 396A (ID/B 20/Rev.1, para. 110)

Duration: September - November 1968

Estimated cost and source of funds: \$4,000 from Consultant funds; 24 man-months

XX.90

UNIDO

Promotion of industries through World Food Programme
(for description see chapter II.D.11)

UNIDO

The following field projects were developed during 1966

			Pro- gramme	Experts m/m	Cost \$
XX.91	Algeria	<u>Study for a milk reconstitution plant (68-283)</u>	SIS	1/3	7,500
XX.92	Algeria	<u>Reorganization of biscuit and pastry factories (67-85)</u>	SIS	1/6	14,000
XX.93	Algeria	<u>Management of fruit and vegetable processing plants (67-86)</u>	SIS	1/6	14,000
XX.94	Argentina	<u>Food processing development (67-206)</u>	SIS	1/12	24,000
XX.95	Brazil	<u>Possibilities of assistance to the food industry (67-247)</u>	SIS	2/20 days	3,800
XX.96	Central African Republic	<u>Feasibility study for cassava industrialization (68-351)</u>	SIS	1/3	6,200
XX.97	Ceylon	<u>Vegetable oil industry (67-222, 67-243)</u>	SIS	2/24	48,000

			Pro- gramme	Experts m./m	Cost \$
XX.98	Chad	<u>Technical and economical analysis of meat complex (68-342)</u>	SIS	1/3	6,200
XX.99	Congo (Brazzaville)	<u>Modernization of palm oil extraction plants (67-151)</u>	SIS	1/4	9,000
XX.100	Congo (Brazzaville)	<u>Study on an agro-industrial complex to manufacture canned pineapple (67-171)</u>	SIS	1/2	5,000
XX.101	Ecuador	<u>Processing of naranjilla fruit (67-98)</u>	SIS	1/2 weeks	750
XX.102	Ethiopia	<u>Meat processing operations (68-282)</u>	SIS	1/12	23,100
XX.103	Guinea	<u>Establishing a laboratory for vegetable and essential oils (67-186)</u>	SIS	1/3 (1/6 fellows)	10,600
XX.104	Guyana	<u>Food industries productivity and quality improvement (68-355)</u>	SIS	2/7½	14,000
XX.105	Iran	<u>Long-range programme for the food processing industries (220-57)</u>	TA	3/18	34,650
XX.106	Iran	<u>Food industry production problems (220-57)</u>	TA	1/6	11,400
XX.107	Kenya	<u>Feasibility study on dry and wet maize milling (67-122)</u>	SIS	1/4	10,000
XX.108	Kenya	<u>Feasibility study of a castor oil factory (67-124)</u>	SIS	1/1½	5,000
XX.109	Libya	<u>Management of vegetable oil operations (X80-460)</u>	F-in-T	1/12	23,100
XX.110	Madagascar	<u>Setting up of vegetable oil plant (67-154)</u>	SIS	2/24 (4/19 fellows)	60,500
XX.111	Mali	<u>Improvement of meat processing production (67-183)</u>	SIS	2/6	13,000
XX.112	Niger	<u>Five-year programme of development for the agro-industry in Niger (67-249)</u>	SIS	1/2	6,000
XX.113	Nigeria	<u>Food processing (10-61)</u>	TA	1/24	34,800
XX.114	Rwanda	<u>Establishment of a malt factory (68-328)</u>	SIS	1/2	5,000
XX.115	Rwanda	<u>Fruit and vegetable processing (68-329)</u>	SIS	1/3	7,000
XX.116	Somalia	<u>Survey of food processing plants (67-140)</u>	SIS	1/2-3 weeks	1,200

			Pre- programme	Expert months	Cost \$
XX.117	Somalia	<u>Operation of the Chisimale Plant (68-387)</u>	SIS	1/3	10,000
XX.118	Sudan	<u>System of grading and standardization of oil seeds (ID-235)</u>	REG	1/11	10,000
XX.119	Sudan	<u>Personnel training of food processing plants (68-257)</u>	SIS	1/3	1,000
XX.120	Trinidad and Tobago	<u>Food processing industry (67-90)</u>	SIS	1/3	950
XX.121	Togo	<u>Establishment of a plant to manufacture dry cassava flakes (67-166)</u>	SIS	1/6	14,000
XX.122	Tunisia	<u>Increasing efficiency of fruit-oil processing (67-73)</u>	SIS	1/6	14,000
XX.123	Uganda	<u>Survey of food processing (68-255)</u>	SIS	1/1 week	250
XX.124	Upper Volta	<u>Development of the vegetable oil processing industry (68-320)</u>	SIS	1/3	6,200
XX.125	Upper Volta	<u>Exploratory mission for millet milling (68-319)</u>	SIS	1/1	5,500
XX.126	Uruguay	<u>Productivity of the food processing industry (ID-858)</u>	REG	1/6	9,500
XX.127	Venezuela	<u>Installation of a pilot plant for food products (X80-25)</u>	IA	1/6	14,400
XX.128	Regional	<u>Regional industrial adviser with ECAFE (ID-1083)</u>	REG	1/12	24,000

XX.129

WFP

Mali - Development of milk industry in Bamako

In order to promote milk consumption among low-income groups, a milk processing plant is being set up in Bamako for the processing and toning of locally-produced milk. The plant will have an initial output of 5,000 litres per day; its potential daily capacity will be 10,000 litres, however.

For a period of four years WFP will provide dried skim milk to be used to tone local fresh milk at the Bamako plant. The toned milk will be sold at prices within the reach of low-income groups. That part of the income from the sale of milk attributable to WFP supplies will be paid into a government fund for furthering livestock improvement and increasing milk production.

Duration: 4 years; approved: June 1967

Estimated cost: \$158,600

XX

44

Project - Increase of milk production in Niue

The purpose of this project is to improve the income through increased production and improvement of milk, to make sufficient quantities of milk available at low prices and to control the production of milk in order to meet the needs of the population. For this purpose the Government has provided in its budget for the construction of four milk collecting centres and a milk processing plant in Niue, with a potential capacity of 10,000 litres per day.

WFP is requested to supply dried skim milk for processing at the plant, to enable milk to be produced at prices within the reach of poorer people. A limited quantity of milk will be provided free by the Government to expectant mothers and to pre-school children.

Duration: 5 years; approved: February 1968

Estimated cost: \$240,000

CHAPTER XXI

FISHERIES AND FISH PROCESSING AND TRADE

XXI.1

FAO

FAO regular programme activities

The following activities were carried out in 1968:

- Conference on fishing ports and fish marketing held in Bremen
- Working party on fishery statistics including fishery production for the North Atlantic Area
- CARPAS working party on fishery statistics held in Rio de Janeiro
- FAO/IMCO working party on stability of fishing vessels held in London
- FAO/IMCO/ILO working party on code of safety for fishermen and fishing vessels held in Geneva
- Studies on costs and earnings of fish culture operations
- General Fisheries Council for the Mediterranean: working party on utilization and marketing of fish and fish products held in Rome

Duration: 1968

XXI.2

FAO

Argentina - Fishery development project (ARG-10)

The immediate objectives of this project are extensive prospecting and exploratory fishing to be carried out in conjunction with biological and environmental studies required for the assessment of fishery resources; experimental fishing to test new fishing methods; and the evaluation of the industrial feasibility of introducing new methods of utilizing the resources. Assistance will be given to the Government and industry in taking appropriate measures to overcome institutional and other problems which have been hampering the development of this industry.

Research includes quality control and the introduction of improved processing technologies.

The project team consists of biologists, master fishermen, economists and consultants on product development, wholesale and retail distribution, vessel design, industrial financing and development, marketing and export promotion.

Duration: 1966-1973

Estimated cost and

source of funds: \$1,000,000 (Government)

\$2,000,000 (World Bank contribution)

XXI.3

FAO

Brazil - Fishery research and development project (BIA-11)

This project provided the Government and industry with technical services required for the planning of specific industrial development programmes, in particular measures to be taken to encourage the private sector to participate in the construction and operation of cold stores, ice plants, water and fuel facilities and so on.

The project was completed in 1968, but the Government has requested a phase II project with a counterpart contribution of more than \$3,500,000.

Duration: 1965-1968

Estimated cost and

source of funds: \$375,400 UNDP/SF allocation
\$474,100 Gov't contribution

XXI.4

FAO

Caribbean Region - Caribbean fishery development project (CAR/REG-16)

The following states and territories are participating in this regional project: Barbados, Guyana, the Dominican Republic, France (in respect of French Guyana, Guadeloupe, Martinique, and their dependencies); Haiti, Jamaica, the Leeward Islands (Antigua, Montserrat, St. Christopher/Kitts, Nevis and Anguilla); the Netherlands Antilles, Surinam, Trinidad and Tobago, the United States of America (on behalf of Puerto Rico) and the Windward Islands (Granada, St. Lucia, St. Vincent).

The main purpose of this project is to provide a basis for the future growth of the fisheries in the Caribbean Region through exploratory fishing, market studies, demonstration and training. The project is divided into two phases, a one-year preparatory phase and a second operational phase which will last three years.

Although shore-based courses for fishermen are being held, the greater part of the training will take place on board the available exploratory fishing and other vessels.

Duration: 4 years; 1965-1969

Estimated cost and

source of funds: \$1,899,300 UNDP/SF allocation
\$ 722,800 Gov't counterpart contribution

XXI.5

FAO

Central Africa (Cameroon, the Central African Republic, the Congo (Brazzaville), Gabon) - Inland fishery projects (AFR/REG-54)

The purpose of this project is to assist the Governments in expanding and developing fish culture through training and research.

Duration: 5 years

Estimated cost and

source of funds: \$1,400,000 UNDP/SF allocation

XXI.6

FAO

Central American region - Central American fishery development project (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama) (CLL/REG-30)

This project was requested by the Economic Co-operation Committee of the Central American States and aims at increasing production and consumption of marine and freshwater fish and fishery products. This project consists of four main parts: strengthening of fishery administration and planning; development and management of various fisheries; a general resources survey; and improvement of processing and marketing.

One of the main objectives of this project is training. Emphasis will be placed on the practical aspects of developing the industry and training will include fisheries management, fishing methods, preservation and processing, transportation and marketing of fish and fishery products. The possibility of replacing imported marine products with locally produced items will be given careful attention.

Fish processing activities are carried out in co-operation with the Central American Institute for Research and Industrial Technology (ICAITI), and studies concerning interregional trade are carried out in collaboration with the Permanent Secretariat of the General Treaty of Economic Integration of Central America (SIECA).

The team includes biologists, economists, fishing experts, processing technologists and consultants.

Duration: 5 years

Estimated cost and

source of funds: \$2,245,500 UNDP/SF allocation
\$5,049,000 Gov't counterpart contribution

XXI.7

FAO

Ceylon - Fishing vessel design, exploratory fishing and gear technology

The assistance provided through this project has stimulated interest in fishing and resulted in a rapid expansion of the fishing industry of the country.

Duration: 1968

Estimated cost and

source of funds: \$22,000 UNDP/TA allocation

XXI.8

FAO

Chile - Fisheries Development Institute (CHI-9)

The purpose of this project was to establish a Fisheries Development Institute in Santiago to direct work carried out at various locations along the coast. In addition to such programmes as raw material assessment, improvements of fishing methods and consequently of vessel and gear design, economics of exploitations and marketing statistics etc., investigations covered such aspects as grading, establishing quality control through training courses in laboratories and industries, assisting the Government in its efforts to improve existing processing industries, the development of suitable products from the raw material available, including better packing, distribution and improved factory efficiency.

Work in the training and industrial development section was oriented towards overcoming specific problems within the industry. A paper on "Fish Meal Industry in the North of Chile - Capacity, Equipment and Utilization, 1965" has been completed, dealing with the existing reduction industry, its output, employment and efficiency. Another report was prepared on the organization and requirements for freezing and filleting.

The institute has taken on a number of studies that were requested by private industries when their importance in the development of the country's economy and their feasibility were considered sound. These studies deal with: shrimp and langostino freezing; salted and dried hake and fishmeal; crab and mussel canning; plans for expansions of present installations; incorporating freezing of hake; drying and freezing of hake, canning and freezing; drying of fishmeal and hake; fish canning plants and so on.

The team included research scientists, biologists, experts in fishing gear and methods, in small boat design, and technologists for quality control, processing and freezing.

Duration: 1963-1968

Estimated cost and

source of funds: \$1,513,200 UNDP/SF allocation

\$3,271,400 Gov't counterpart contribution

XXI.9

FAO

China - Fisheries Industry

The purpose of this project was the economic appraisal and evaluation of the fisheries industry of Taiwan and the existing development programme; the identification of major problems that require special consideration and/or improvement and planning for further development - especially on tuna fishing, deep-sea trawling and their related industries.

Duration: 1968

Estimated cost and

source of funds: \$14,600 UNDP/TA allocation

XX.61

FAO

Nigeria - Feasibility study for the establishment of an integrated mill for millet (44K-1)

An expert has helped to initiate the construction of an integrated milling plant for sorghum and millet in northern Nigeria. The project will also cover development of a comprehensive feasibility study for the production and utilization of millet and sorghum flours has been arrived at. The project includes the production of cattle feed from mill by-products.

The project staff includes four internationally recruited experts and several fellowships for counterpart personnel.

Duration: 1967 - continuing

Estimated cost and source of funds: \$100,000 for equipment

XX.62

FAO

Nigeria - Dairy industry development (northern region)

A dairy technologist is assisting in the development and organization of milk processing.

Duration: 1968 - continuing

Estimated cost and source of funds: \$14,000 from UNDP/TA allocation

XX.63

FAO

Nigeria - Cashew nuts and soybean processing

A specialist has been promoting the central handling of cashew nuts in Nigeria. This work will be extended in 1969 to cover all areas of Nigeria and purchase agreements with neighbouring countries are being negotiated.

Duration: 1968-1969

Source of funds: UNDP/TA

XX.64

FAO

Pakistan - Dairy industry plant management

Two experts are advising the Karachi and Lahore UNICEF milk plants on management with special emphasis on milk collection, processing and distribution. Skim milk powder and butter-oil, supplied by WFP, will be used for recombining fluid milk to augment the local supply. An associate expert (dairy technology) will assist the expert in Lahore in 1969.

Duration: 1968-1969

Estimated cost and source of funds: \$29,850 from UNDP/TA allocation

XXI.10

FAO

Colombia - Marine fisheries development project (LAC-1)

The purpose of this project is to develop marine fisheries, establish experimental fishing, survey, advisory services and extension.

Duration: 4 years; 1968-1972

Estimated cost and

source of funds: \$998,700 UNDP/TF allocation
\$951,385 Gov't contribution

XXI.11

FAO

Cuba - Marine fisheries development project

The purpose of this project was to advise on experimental and exploratory fishing, gear technology and fishing methods, resources evaluation, shell fish culture and project evaluation.

Duration: 1968

Estimated cost and

source of funds: \$88,000 UNDP/TA allocation

XXI.12

FAO

Dahomey - Marine fisheries development project

This project is a continuation of work initiated a few years ago. The responsibilities of the expert will include assistance in the training of technical and administrative fisheries staff, organization of statistical and economic research services, improvement of fish processing and marketing, and rehabilitation of the lagoon fisheries.

Duration: 1968 - continuing

Estimated cost and

source of funds: \$87,200 UNDP/TA allocation

XXI.13

FAO

East Africa (Kenya, Uganda and the United Republic of Tanzania) - Lake Victoria fisheries research (AFR/REG-49)

This project is aimed at the management and development of fresh-water fisheries of Lake Victoria through experimental fishing, biological investigations, products development, economic surveys and the establishment of a statistical service. In particular the project will strengthen the activities of the East African Fresh-water Fisheries Research Organization. It covers also the field of fish products development in co-operation with the Experimental Fish Processing and Demonstration Field Station of Nwanza, Tanzania.

Duration: 5 years

Estimated cost and

source of funds: \$810,000 UNDP/SF allocation
\$659,273 Gov't counterpart contribution

XXI.15

FAO

Ecuador - National Fisheries Institute

A fisheries development adviser was appointed to assume liaison duties between the National Fisheries Institute and the government fisheries administration. The adviser assisted the Institute in the planning and conduct of economic and cost-accounting studies relating to the different sectors of the fishery industry of the country. The project led to an IBRD loan to construct a fleet of tuna fishing vessels.

Duration: 1968

Estimated cost and

source of funds: \$22,000 UNDP/TA allocation

XXI.15

FAO

Ghana - Fishery research unit (GHA-9)

Under this project a research programme is to be undertaken that will include: a study on the biology of the sardinella with special regard to expanding the fishing season and a study on the composition of the demersal fish stocks and on the effect of the fishing operations on them. In addition, studies on the distribution of, and fishing techniques for, tuna and horse mackerel (*caranx hippos*) are to be undertaken. This project is directed primarily towards biological problems of stock assessment, the development of suitable and economically profitable gear and new catch techniques as a pre-investment for further action. The sardinella and tuna fisheries research programmes are of international importance and will represent an essential part of the future co-ordinated researches in the Gulf of Guinea.

Duration: 5 years; 1965-1970

Estimated cost and

source of funds: \$1,442,800 UNDP/SF allocation
\$1,139,900 Gov't contribution

XXI.16

FAO

Ghana - Expansion of facilities for fisheries research on the Volta Lake (GHA-10)

FAO is assisting three institutes of the Academy of Sciences, namely the Institute of Aquatic Biology, the Institute of Health and Medical Research, and the Water Resources Institute, in carrying out research studies on phytoplankton and zooplankton, aquatic vectors and weeds, taxonomy and biology of fish and its parasites, quality of water in the lake and of its tributaries etc.

Duration: 6 years; 1965-1971

Estimated cost and

source of funds: \$1,586,000 UNDP/SF allocation
\$1,797,500 Gov't counterpart contribution

XXI.17

FAO

India - Fisheries Training Institute, Bombay

The purpose of this project is to establish a central institute of fisheries education in Bombay for training fisheries officers required at district level for the development of the fisheries industry, and other personnel requiring similar instructions. The Institute will be equipped with laboratories, fishing training vessels, machinery, gear etc.; an inland fisheries station will be established in Orissa State.

Duration: 3 years; 1962-64

Estimated cost and

source of funds: \$694,400 UNDP/SE allocation
\$27,000 Gov't counterpart contribution

XXI.18

FAO

India - Fisheries Training Institute, Bombay (1962-64)

The purpose of this project is to establish a central institute of fisheries education in Bombay for training fisheries officers required at district level for the development of the fisheries industry, and other personnel requiring similar instructions. The Institute will be equipped with laboratories, fishing training vessels, machinery, gear etc.; an inland fisheries station will be established in Orissa State.

The Institute offers a two-year post-graduate diploma course. Besides ecology, fish culture, conservation, catching methods, operation of boats and gears, the curriculum covers the technological sides of harbour and shore establishments, preservation and processing, storage and distribution. The curriculum also includes courses on labour, industrial structure, finance, credit, institutional structure and so on.

Duration: 1962-1969 (extended from 1966)

Estimated cost and

source of funds: \$655,205 UNDP/SE allocation
\$1,818,669 Gov't counterpart contribution

XXI.19

FAO

Indonesia - Marine fishery development

The purpose of this project is to establish, on a commercial scale, a joint venture involving a fleet of vessel and supporting shore facilities on skipjack and tuna fishing in West Irian.

Duration: 1968 - continuing

Estimated cost and

source of funds: \$1,000,000 to start the project is to be provided by FUNDWI

XXI.20 FAO

Kenya - Marine Fishery Development

The purpose of this project is exploratory fishing, improvement in fishing methods and gear.

Duration: 1966

Estimated cost and

source of funds: \$2,000 UNDP/FA allocation

XXI.21 FAO

Republic of Korea - Deep Sea Fishing Training Centre, Pusan (Mar-10)

The purpose of this project is to establish and operate a Deep Sea Fishing Training Centre for training qualified and efficient technicians.

The Centre is located at the Central Fisheries Experimental Station of the Ministry of Agriculture and Forestry in Pusan; it is the largest fishing centre of the country. Trainees are selected from graduates of fishery colleges, fishery high schools, other vocational schools and from fishermen. Extensive practical training is given for a period of six to twelve months; emphasis is placed on fishing techniques, particularly tuna fishing and various types of trawl fishing and on instruction in navigation and marine engines.

Appropriate technical training is also provided to selected small boat operators in the use of more efficient gear and methods. Fishing operations conducted under commercial fishing conditions have shown themselves to be profitable.

Duration: 1964-1969

Estimated cost and

source of funds: \$1,013,500 UNDP/SI allocation

\$ 332,206 Gov't counterpart contribution

XXI.22 FAO

Libya

A consultant on vessel design and procurement was sent to Libya in 1968. As a result of his services, a fleet of 33 fishing vessels has been built.

Duration: 1968

Source of funds: F-in-I

XXI.23 FAO

Madagascar - Fishery Development

The purpose of this project is to promote the development of the fishing industry by training personnel, undertaking trial and demonstration fishing, and carrying out marketing studies.

Duration: 4 years; 1968-1972

Estimated cost and

source of funds: \$909,500 UNDP/SI contribution

\$454,750 Gov't counterpart contribution

- XXI.24 FAO Mali - Fish preservation, storage, packaging
This project was a continuation of a project initiated in 1964, with the purpose to improve the handling and processing of fish, and the storage and distribution of smoked and unaltered dried fish products.
Duration: 1965-1968
Estimated cost and source of funds: \$82,400 UNDP/TA allocation
- XXI.25 FAO Mauritius - Fishery development
The purpose of this project is to assist the development of the fishing industry through demonstration fishing and marketing studies.
Duration: 3 years; 1968-1971
Estimated cost and source of funds: \$355,500 UNDP/SF contribution
\$545,400 Gov't counterpart contribution
- XXI.26 FAO Mexico - Fishery research and development project (MEX-15)
The purpose of this project is to provide advisory services to review the factors affecting the development of Mexican fisheries, to make surveys and feasibility studies in the waters off Baja California and adjacent areas, and to initiate long-term shrimp research and surveys and feasibility studies along the lower Pacific Coast.
Duration: Continuing
Estimated cost and source of funds: \$1,530,700 UNDP/SF allocation
\$2,105,200 Gov't contribution
- XXI.27 FAO Nigeria - Fisheries survey in the western and mid-west regions (NIR-6)
The purpose of this project was to survey the fisheries resources in the western and mid-west regions of Nigeria. This project consisted of two phases. The first phase included a survey to supply basic information on the potentialities of fishery resources and on the various economic and technical factors affecting the exploitation and utilization of these resources. This phase also covered prevailing conditions of fishing methods, fish handling, preservation, processing and marketing. The second phase involved demonstration and pilot

XXI.27
(cont'd)

FAO

schemes in order to determine the most economical methods for development schemes, expanding the fishing industry, including processing and marketing. To achieve this, provision was made to set up pilot demonstration plants for salting, drying and smoke-drying of fish.

The project has contributed to the discovery of shrimp resources and the subsequent development of the shrimp industry.

Duration: Initiated in 1961, revised 1963 and terminated 1968

Source of funds: UNDP/SF

XXI.28

FAO

Pakistan - Survey for the development of fisheries in East Pakistan (PAK-22)

The purpose of this project is to assess the potential for increased fish production by carrying out exploratory fishing trials and biological studies.

The team includes a gear technologist, a fish products technologist and a marketing expert to ensure that processing, marketing and distribution problems can be dealt with adequately.

Duration: 5 years; 1965-1970

Estimated cost and

source of funds: \$1,463,700 UNDP/SF allocation

\$1,316,447 Gov't counterpart contribution

XXI.29

FAO

Peru - Peruvian Sea Institute (formerly Marine Resources Research Institute) (PER-2)

Under this project additional assistance has been extended in 1968 to the Peruvian Sea Institute for further study of anchovy stocks, including population dynamics and a survey of other fishery resources.

The Government has already adopted stock management policies based on the recommendations of the Institute which in turn should result in a long-term sustained yield of this stock vital to the fish meal industry.

Duration: 1968 - continuing

Estimated cost and

source of funds: \$762,700 UNDP/SF allocation

\$2,198,600 Gov't contribution

XXI.30

FAO

Philippines - Deep sea fishing development (P-12)

The purpose of this project is to assist the Government in economic planning of the fisheries sector. The project objectives are to carry out extensive experimental fishing, to train fishermen in new fishing methods, and to improve fish handling, preservation, processing, marketing and distribution with emphasis on new methods and the rationalization of traditional methods. Activities include: marine, pelagic, tanning, freezing, fermented products development, pickling and so on.

Advisory services, mainly through consultants, are made available in order to develop and finance projects such as: new fishing harbours, tanning factories, fleet building programmes, improved ship-building facilities, ice plants, cold stores and freezing plants. To achieve this the team includes specialists on fish processing technology, but also naval architect/boat builders, marketing specialists and fisheries economists.

Duration: 5 years; 1965-1970

Estimated cost and

source of funds: \$1,287,800 UNDP/SF allocation

\$2,457,350 Gov't counterpart contribution

XXI.31

FAO

Somalia - Development of the fishing industry (SOM-13)

The purpose of this project is to assist the Government in the development of the fishing industry through resource surveys.

Duration: Continuing

Estimated cost and

source of funds: \$576,900 UNDP/SF allocation

\$ 80,000 Gov't allocation

XXI.32

FAO

Southern Yemen (Gulf of Aden) - Fishery development in the Gulf of Aden (SOA-38)

The purpose of this project is to assist the Government in the development of marine fisheries, to provide pre-investment surveys of the fishery resources of the Gulf of Aden and nearby waters and to train fishermen and master fishermen.

An exploratory fishing vessel, gear and scientific laboratory equipment are provided for in the budget.

Duration: 3 years; 1966-1969

Estimated cost and

source of funds: \$948,300 UNDP/SF allocation

\$637,900 Gov't counterpart contribution

XXI.34 FAO Senegal - Fishery research and development project (VII-14)
The purpose of this project is to survey coastal pelagic fish stocks, to carry out a biological evaluation of marine resources to determine the potential of fishery development and to survey exploratory and experimental fishing. Consultant services are also provided.

Duration: 1968 - continuing

Estimated cost and

source of funds: \$1,179,600 UNDP/SF allocation
\$4,245,612 Gov't contribution

XXI.34 FAO Republic of Viet-Nam - Off-shore fishery development (VII-3)
This project deals with exploratory fishing and feasibility surveys using various fishing gear and methods. Training of fishermen and crews is also included.

Duration: Continuing

Estimated cost and

source of funds: \$1,037,900 UNDP/SF allocation
\$ 942,625 Gov't contribution

XXI.35 FAO Senegal - Institute of Food Technology, Dakar (SEN-5)
(For description see chapter XX.74)

XXI.36 IAEA Preservation of fish and seafoods by irradiation in Iceland
A survey project on the preservation of fish and seafoods by irradiation was implemented in Iceland. The project is scheduled to last for one year. It is being carried out cooperatively by the Government of Iceland, the USAEC and the IAEA in order to determine the feasibility of extending the market life of different varieties of fish and seafoods in the Icelandic fisheries areas.

For this purpose a cobalt-60 source of 36,000 curie was loaned by the USAEC. IAEA provided fellowships for the following developing countries: Argentina, Chile, Iraq and the Philippines. Scientists from these countries were sent to Iceland as observers for two months each.

Duration: 1 year

XXI.37 IAEA Regional study group meeting on food irradiation for the Balkan countries
(For description see chapter XX.83)

XXI.38 UN100 Papers for a meeting on refrigeration technique
(For description see chapter X.89)

UN100 The following field projects were developed during 1967

		<u>Pro- gramme</u>	<u>Experts m/m</u>	<u>Cost \$</u>
XXI.39	Upper Volta	<u>Development of the fish processing industry</u> <u>(68-321)</u>	1/2	5,000

CHAPTER XXII

NON-FERROUS PROCESSING AGRICULTURAL PRODUCTS
OTHER THAN FOOD OF ANIMAL OR VEGETABLE ORIGIN

- XXII.1 FAO A handbook of Sheep Shearing
This is No.31 of the informal working bulletins in the FAO Agricultural Engineering Series published in 1968.
Duration: 1968
Source of funds: Regular programme
- XXII.2 FAO Studies on synthetic substitutes for jute and hard fibres
Two major studies of the impact of synthetics on the markets for natural fibres were prepared in 1968: one dealing with synthetics competition with jute and allied fibres, and the other with synthetics competition with hard fibres. The present competitive situations in Europe, Japan, North America and the United Kingdom, are analysed and likely future trends assessed. The technical aspects and policy implications of these studies will be reviewed at the forthcoming sessions of the FAO study groups on jute and on hard fibres.
Duration: 1968
Source of funds: Regular programme
- XXII.3 FAO Burma - Tobacco blending and processing
This project operated in 1967 and was extended throughout 1968.
Duration: 1967-1968
Estimated cost and source of funds: \$14,500 from UNDP/TA allocation
- XXII.4 FAO/GAIT Chad - Reorganization of cotton industry
A joint FAO/GAIT (ITC) mission undertook a two-month survey in 1968 on the reorganization of the Chadian cotton industry and the feasibility of processing its by-products. The report is presently under consideration by the Government and follow-up action is expected calling thereby for further assistance from FAO and GAIT.
Duration: 1968 - continuing

XX.65

FAO
(FI C)

Pakistan - Development of date and date products processing industry.

In 1968, two experts (one associate under Netherlands bilateral arrangements) have assisted in the operation of a date packing house and date products plant in the Makran area. Equipment and machinery were made available under FFHC.

Duration: 1968

Source of funds: FFHC, UNDP/TA and E-In-I from the Netherlands

XX.66

FAO

Philippines - Applied Research Institute for Products of Animal Origin (dairy industry development) (PHI-4)

An expert at the Institute is advising on matters of milk processing for which the project provided part of the equipment.

Duration: 1968 - continuing

Source of funds: UNDP/SF

XX.67

FAO

Philippines - Processing of rice and maize

Two FAO consultants are advising on the drying, storing and processing of rice and maize. They are working together with the general manager and staff of the rice and corn administration. Work has been initiated to modernize the storage facilities of the rice mills and to incorporate bulk storage and "in-bin" drying. Preliminary guidance is being given to individual millers while developing an over-all programme.

Through a newly established Drier Committee, the consultants are assisting indigenous manufacturers to assess and upgrade locally made driers.

Duration: 1968 - continuing

Source of funds: UNDP/TA

XX.68

FAO

Poland - Research and extension services for food production, processing and utilization (POL-2)

The purpose of the project is to promote a co-ordinated plan of research and development for the production, processing and utilization of food with emphasis on quality appraisal, including the nutritive value of foods.

The co-operating units of the Polish Government include, through the appropriate Ministries: the food industries specialized institutes and laboratories and associated agricultural and fisheries centres in Warsaw and elsewhere; the Agricultural University of Warsaw - Faculty of Food Technology (as well as relevant faculties at other Universities); the Warsaw Food Training Centre and associated vocational secondary schools

XX11.5

FAO

Tanzania - Coir and Cotton Processing Industry Development, etc.

This project is the follow-up of a previous FAO activity carried out during 1965-1967 and provides for the establishment of a coir and cotton processing industry for commercial production. Technical in-project training of local personnel is included.

Duration: continuing

Source of funds: UNDP/FAO

XX11.6

FAO

Guinea - Coconut fibre processing

An expert has assisted the Government for six months in 1968 in coir processing and manufacturing techniques.

Duration: 6 months; 1968

Source of funds: UNDP/Contingency fund

XX11.7

FAO

India - Central Sheep and Wool Research Institute, Rajasthan (IND-32)

The Institute provides experimental and training facilities in sheep husbandry, better utilization of land, wool shearing, grading, testing, wool technology and wool processing.

The Institute comprises a central sheep and wool research station, and one main sheep and wool training centre, both in Malapura near Jaipur. The Institute has been equipped with: a fibre research laboratory; wool processing, utilization and testing equipment; grading and shearing equipment; and sheep breeding stocks. There are also two sub-stations; one in the Himalayan region at Kulu and the other in Kodai Kanal, Madras State. Ten large and 148 small centres demonstrate shearing, grading, wool marketing and sheep flock management.

The project has had considerable impact on the wool industry and on the rural economy. A total of 134 workers have been trained in sheep shearing methods, increasing the quantity and quality of the wools coming onto the market. A total of 381 staff and workers have been trained in wool grading and disposal. The effect of the newly introduced marketing system has been twofold: the average price paid to the producers has been nearly doubled despite the devaluation of the rupee and other financial disincentives, and the textile manufacturing industry is now able to purchase fine wool selections on the home market and this has resulted in foreign exchange savings.

XXII.7
(cont'd)

FAO

The Wool Boards of Australia and New Zealand and the International Wool Secretariat have co-operated in this project and have assisted in planning a number of follow-up actions including the up-grading of the local flocks, improving the processes of shearing, and the collection, handling, grading and disposal of wool. Several industrialists have shown interest in establishing wool scouring plants.

Duration: 1963 - August 1968

Estimated cost and

source of funds: \$771,500 UNDP/SF allocation
\$6,064,744 Gov't contribution

XXII.8

FAO

India - Sheep and wool development in eight states (IND-92)

The project is designed to extend the activities on sheep and wool development undertaken under the above-mentioned project in the states of Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Madhya Pradesh, Maharashtra, Punjab and Uttar Pradesh. The project will include field operations in the eight states as well as testing and training in wool processing at the Institute at Malpura. The eight states will be furnished with wool grading and disposal centres, and with large farms responsible for the multiplication of imported sheep and for crossbreeding with indigenous sheep.

The Central Sheep and Wool Research Institute at Malpura will be strengthened to cover: demonstration of improved technology of wool processing, training in improved wool utilization and distribution of technical information, and the installation of a wool weaving and utilization plant.

Duration: Continuing

Source of funds: UNDP/SF

XXII.9

FAO
(FFHC)

India - Equipment for the conversion of fallen animal carcasses into poultry and cattle feed

Under this project a by-products plant will be set up near New Delhi. The site and buildings were ready by the end of December 1968; the equipment is expected to arrive in March 1969.

Duration: 1968-1969

Source of funds: FFHC donation

- Page 10
- XXII.10 FAO Indonesia - Fibre processing (coconut husks)
- A coir and copra processing expert had been assigned for four months in 1968 to examine the feasibility of improving the collection and processing of coconut husks for export.
- Duration: 4 months; 1968
- Source of funds: UNDP/TA
- XXII.11 FAO Indonesia - Block rubber processing
- A specialist advised the Government on block rubber processing and on the rejuvenation of rubber and oil palm plantations.
- Duration: 1968
- Source of funds: UNDP/TA
- XXII.12 FAO Pakistan/Cambodia - Rubber production and processing
- An expert advised on production and processing of rubber in East Pakistan and Cambodia.
- Duration: 1968
- Source of funds: UNDP/TA
- XXII.13 FAO Sri Lanka - Development of coir and copra processing industry
- A coconut processing expert was assigned for four months in 1968 to assist the Government in the introduction of improved processing techniques.
- Duration: 4 months; 1968
- Source of funds: UNDP/TA
- XXII.14 FAO Thailand - Rubber research and development in South Thailand
- The purpose of this project is to raise the productivity of the natural rubber industry. Rubber (200,000 tons/year) and rice exports are the two main foreign exchange earners.
- The experts cover such aspects as research, training and demonstration in order to improve the general level of technical proficiency among small-holders. In addition to production, they also advise on processing and marketing.
- Duration: 1965-1970
- Estimated cost and source of funds: \$931,000 UNDP/SF contribution
\$817,370 Gov't counterpart contribution

XXII.15 FAO Uganda - Development of tobacco industry
An OPEP marketing adviser is assisting the Government in the rapid development of the tobacco industry in the Acholi and Lango areas. His assistance includes advice on the establishment of curing and tobacco processing plants.
Duration: 1968

XXII.16 FAO Sudan - Agricultural products processing
(For description see chapter XX.76)

XXII.17 FAO FAO Technical Working Party on Coconut Production, Protection and Processing
(For description see chapter XX.5)

UNIDO The following field projects were developed during 1968

			<u>Pro- gramme</u>	<u>Experts n/a</u>	<u>Cost \$</u>
XXII.18	Libya	<u>Fodder yeast production from petroleum refinery by-products</u> <u>(68-310)</u>	SIS	2/1	1,000
XXII.19*	Rwanda	<u>Development of the tea industry</u> <u>(68-330)</u>	SIS	1/3	6,200

CHAPTER XXIII

TEXTILE INDUSTRIES

- XXIII.1 ECA
(1967 CR: XVII.1
 XVII.2)
- Textiles
The following publications were issued on the above subjects:
Central Africa - "The textile situation in central Africa: Markets - industries - prospects"
North Africa - "A study of the textile industries in the North African subregion"
Duration: 1968
- XXIII.2 ECA
(1967 CR: XVII.2)
- Clothing industries
The following publications were issued on the above subjects:
Central Africa - "Clothing industries in the Central African subregion"
North Africa - "A Study of the textile industries in the North African subregion"
Duration: 1968
- XXIII.3 ECE
(1967 CR: XVII.4)
- Changes in the pattern of production, consumption and trade in textiles in Western Europe
The study was initiated in the course of 1967 and was published in the Economic Bulletin for Europe, Vol. 10, No. 1.
- XXIII.4 GATT
- Trade problems relating to the cotton industry
(For description see chapter II.B.1)
- XXIII.5 ILO
(1967 CR: XVII.6)
- Eighth session of the Textiles Committee
Apart from a general report, two technical reports were prepared dealing with labour problems in the textile industry in developing countries, and the effects of structural and technological changes on labour problems in the textile industry.

XXIII.5
(cont'd)

ILO

These reports were examined by the Committee and a series of conclusions was reached.

Authority: Governing Body of ILO

Duration: Initiated in 1967, completed in 1968 (the meeting was held from 29 April - 10 May 1968)

Estimated cost and

source of funds: \$100,295 from ILO regular budget

XXIII.6

UNCTAD/GATT
(ITC)

The Market Information Service

(For description see chapter II.C.13)

XXIII.7
(1967 CR: XVII.8)

UNIDO

Expert Group Meeting on Processing Problems and Selection of Machinery in the Woolen and Worsted Industry, with special reference to developing countries

This Meeting, held in Bursa, Turkey, from 4 to 9 November 1968, was one in a series of expert group meetings, organized by the Food and Light Industries Section of UNIDO, which deals with the selection of equipment for the various textile industry branches. The purpose of these meetings is to provide practical guidance for those in the developing countries who bear the responsibility of selecting the most suitable machinery for the industry.

The working paper prepared for the meeting was discussed by thirteen recognized wool industry experts who made specific recommendations in their final report. The report will be published subsequently and distributed by UNIDO in 1969.

Authority: Recommendation of the First United Nations Inter-regional Workshop on Textile Industries in Developing Countries held in Lodz, Poland in 1965 (66.II.B.29) and approved by the IDB, 1968 (ID/B/20/Rev. 1, para. 109)

Duration: Bursa, Turkey, 4-9 November 1968

Estimated cost and

source of funds: \$8,000 from Consultant Funds for the preparation of background documentation and
\$5,000 from Meeting Funds for Expert Group Meeting (incl. travel and subsistence)

XXIII.8 UNIDO Technological and Economic Aspects of Establishing Textile Industries in Developing Countries

This study, published as ID/7, is based on a working paper submitted by CID to the first United Nations Interregional Workshop on Textile Industries in Developing Countries, held in Lodz, Poland, in September 1967. The basic paper was revised and supplemented by UNIDO during 1967. The publication contains information on processes, new production and administrative methods and other matters relevant to a successful development of the textile industry in developing countries.

Authority: IDB, 1968 (ID/B/20/Rev. 1, para.111)

Duration: Published early 1968

Estimated cost and source of funds: \$2,000 from UNIDO Publication Funds; 6 man-months in 1967

XXIII.9 UNIDO
(1967 CR: XVII.8) Report of expert group meeting on the selection of textile machinery in the cotton industry

The report, which was prepared towards the end of 1967, and was edited and published as ID/WG.8/1 in 1969, contains practical guidelines and criteria on the selection of equipment in the cotton industry. The meeting itself was held in October 1967.

Authority: IDB, 1968 (ID/B/20/Rev. 1, para.111)

Duration: October 1967 - February 1968

Estimated cost and source of funds: \$2,000 from UNIDO Publication Funds

XXIII.10 UNIDO In-plant group training programme - textile industry, Poland
(For description see chapter VI.H.13)

XXIII.11 UNIDO Training Manual
(For description see chapter VI.H.8)

UNIDO The following field projects were developed during 1968

			Pro- gramme	Experts n/a	Cost \$
XXIII.12	Argentina	<u>Wool technology problems of industrial research (111-57)</u>	TA	1/3	5,670
XXIII.13	Argentina	<u>Operation of textile laboratory and establishment of quality control (67-207)</u>	SIS	1/9	24,000

			Pro- gramme	Exports in m	Cost \$
XXIII.14	Brazil	<u>Rehabilitation of textile mill (66-253)</u>	TA	2/2	6,000
XXIII.15	Ceylon	<u>Operation of textile plant (10-482)</u>	TA	1/12	2,000
XXIII.16	Ceylon	<u>Survey of textile industry (67-216)</u>	SIS	2/8	10,000
XXIII.17	Dominican Republic	<u>Specifications for raw materials and products in light industries (9000-68)</u>	TA	1/12	17,077
XXIII.18	Ecuador	<u>Assistance to the Industrial Centre for Development of Textile Production (68-302)</u>	SIS	4/12	24,800
XXIII.19	Ghana	<u>Management of fibre bag manu- facturing plant (66-2)</u>	SIS	3/12 (1/3 fellows)	101,000
XXIII.20	Guinea	<u>Techno-economic feasibility study of a cotton ginning pilot plant (67-187)</u>	SIS	1/2	5,000
XXIII.21	Indonesia	<u>Production problems and quality control of textile industry (43-57)</u>	TA	1/6	10,800
XXIII.22	Indonesia	<u>Improving the management, pro- duction and control of spinning mills (67-174)</u>	SIS	1/12	24,000
XXIII.23	Kenya	<u>Analysing techno-economic problems of the textile industry (67-157)</u>	SIS	2/6	15,000
XXIII.24	Malaysia	<u>Textile marketing policy (67-113)</u>	SIS	1/8	19,000
XXIII.25	Mauritius	<u>Evaluation of a feasibility report for the establishment of a textile industry (67-137)</u>	SIS	1/2	5,000
XXIII.26	Morocco	<u>Textile industry development (421-57)</u>	TA	1/11	22,000
XXIII.27	Nepal	<u>Feasibility studies of cotton textile production (83-65)</u>	TA	1/2	3,850

			<u>Year</u>	<u>Volume</u>	<u>Cost</u>
XXIII.28	Papua	<u>Development of the textile industry (67-71)</u>	TA	1/12	28,000
XXIII.29	Peru	<u>Analysis of industrial production costs of the textile industry (67-186)</u>		1/12	28,000
XXIII.30	Spain	<u>Development of the textile industry (68-306)</u>	SIS	1/12	28,000
XXIII.31	United Arab Republic	<u>Extension of cotton textile facilities (67-83)</u>	SIS	1/12	28,000
XXIII.32	United Arab Republic	<u>Establishment of a central textile research and development institute (68-274)</u>	SIS	2/3	7,000
XXIII.33	United Arab Republic	<u>Production of raw and natural silk (68-291)</u>	SIS	2/12	26,000
XXIII.34	Venezuela	<u>Development of the textile industry (X80-25)</u>	TA	1/12	28,000

XXIII.35

WHO

Research activities - Health and safety problems concerning work and working conditions

Research was carried out on respiratory diseases among textile workers.

(For complete description see chapter XXXII, 6.18).

CHAPTER XXIV

FOREST PRODUCT INDUSTRIES OTHER THAN PULP AND PAPER

- XXIV.1
(1967 CR: XXV.1,
XXV.2)
- ECA Forest product industries
The following studies were undertaken on the above subject:
Central Africa - "Forest industries development in Central Africa"
North Africa - "Forest industries development in North Africa"
Duration: 1968
- XXIV.2
- ECAFE Fact-finding team on forest-based industries
(For description see chapter IV.C.4)
- XXIV.3
(1967 CR: XXV.3)
- ECE Studies of economic and technical aspects of the wood-processing industries
A symposium on factors influencing the consumption of wood-based panel products was held in Geneva in February 1968. The papers presented at this meeting are being published.
- XXIV.4
(1967 CR: XXV.4)
- ECE Review of the forest products market for Europe including forest products statistics
Duration: Continuing
- XXIV.5
(1967 CR: XXV.5)
- ECE/
FAO/ILO Increasing efficiency in wood harvesting, including mechanization
Duration: Continuing
- XXIV.6
(1967 CR: XXV.6)
- ECE Technical co-operation and contacts
The ECE secretariat prepared documentation and serviced a seminar on the transport, packaging and handling of sawn softwood which was held in London from 14 to 15 October 1968. Preparations were also started for a symposium on the industrial processing of temperate-zone hardwoods scheduled to be held in Czechoslovakia in the spring of 1969, and for a training course and seminar on the applications and uses of tropical hardwoods in the furniture industry scheduled to be held in Italy in the spring of 1969.

XX.68
(cont'd)

FAO

and the relevant institutions of the Government of the Republic of Kenya. The Institute, with the assistance of FAO, has been working in close collaboration with the Ministry of Health and the Ministry of Agriculture to carry out a major project aimed at the production of a high quality

Baby food by support of local food processing industry - The Government of Kenya, in collaboration with FAO, has been working with private industry to extend and improve baby food production.

Central kitchen, Katowice - The central kitchen, which started production in early 1968, will supply, when fully operational, more than 100 distribution centres and industrial canteens with prepared and semi-prepared meals. The daily output is to be 30,000 meals.

Dairy industry development - FAO has made available four short-term consultants to advise on the preparation of pure cultures for the industry; the re-design of glass bottles used extensively by the industry; the mode of independent control of design and production of machines for milk plants, and on over-all aspects of this sector of the project follow-up action. The success of this project has been greatly assisted by a very liberal allocation, for both individual and group fellowships, amounting to approximately 25 man-years.

Duration: April 1963-1968; the major project sector was completed in 1968

Estimated cost and

source of funds: \$1,251,000 Total UNDP/SF allocation (\$1,000,000 UNDP/SF contribution, following extension and reallocation of contingency funds) \$1,189,750 (with counterpart contribution)

XX.69

FAO

Rwanda - Dairy industry development

An expert is assisting and advising the Government on the operation of the Nyabisinda milk plant, with a view to further developing the dairy industry.

Duration: 1968 - continuing

Estimated cost and

source of funds: \$19,150 from UNDP/FA allocation; equipment provided by UNICEF

XX.70

FAO

Samoa - Gur (raw sugar) processing

A sugar technologist advised on the production of a high quality sugar cane for gaur and raw sugar production.

Duration: 1968

Source of funds: UNDP/FAO

XXIV.7

ECLA

Latin American meeting on forest industries

Preparations are progressing for the holding of this conference, which is to take place in 1970 in Mexico. Several studies have been initiated in this connexion; such as those on the situation regarding paper packaging in the region, the prospects for the development of the production of newsprint, the manufacture of wood panels, and the sawmill industry in Latin America.

Duration: 1968-1969 (conference to be held in 1970)

XXIV.8
(1967 CR: XX.3)

ECLA/
UNIDO/
FAO

Advisory services on forest industries and pulp and paper industries

In 1968 the ECLA/UNIDO/FAO Forest Industry Advisory Group for Latin America has continued to send various advisory missions to countries in the region. Among these missions, mention may be made of the mission to Honduras concerning the project for forest industries in the Olancho area; the mission to Cuba to evaluate programmes for afforestation and development of the paper and pulp industry; the mission to Venezuela to define and formulate suitable follow-up action for the study prepared by FAO on the establishment of a pulp plant in the Guayana province of Venezuela; the mission to Brazil regarding the possibility of assistance by United Nations bodies to projects for the development of the country's forest industries; and the mission to Central America to advise SIECA on the prospects for development of the pulp and paper industry.

Duration: Continuing

Estimated cost: 1968 - 12 man-months

XXIV.9

FAO

Publications on Forest Industries Development

The following publications were issued in 1968:

1967 Yearbook of Forest Products Statistics

Report of the First Session of the FAO Committee on Forest Development in the Tropics

Duration: 1968

Source of funds: FAO regular programme

XXIV.10

FAO

Wood-based panels (Committee on Wood-based Panel Products - second session)

The second session of the FAO Committee on Wood-based Panel Products took place from 6 to 8 November 1968 in Rome. Among the reports submitted to the meeting was the first FAO world survey of production capacity for plywood, particle board and fibreboard. Other items discussed included trends in production costs for wood-based panels and the promotion of the use of wood-based panels in developed and developing areas.

Duration: 6-8 November 1968

XXIV.11

FAO

Advisory missions

Special missions were sent to a number of countries in 1968 to advise Governments on specific issues. For example, a mission was sent to Turkey to advise on an integrated approach to forest industries development, and another to Honduras to assist the Government in negotiations connected with the establishment of new large-scale pulp and paper operations.

Duration: 1968

XXIV.12

FAO

Regional Forest Industries Development Advisory Groups in Latin America, Africa and Asia

FAO's Forest Industries Development Advisory Groups continued their activities in 1968 in Latin America (with ECLA), in Africa (with ECA) and in Asia and the Far East. In Latin America, where the Group's activities are concentrated on plans for regional integration of forest industries, the programme has included such problems as the expansion of the supply of newsprint and paper-based packaging materials. These activities have been complemented by field work undertaken by the Regional Advisory Groups on Forest Industries Development, particularly in relation to Central America and to selective countries in Africa and Latin America. In Africa, the Group undertook sectoral studies covering pulp and paper and other forest industries in North and Central Africa, and plans are under way for a continuation of these studies in other regions of Africa. In Asia and the Far East, the Group has collaborated in a survey of the pulp, paper and rayon industry in south-east Asia, the findings of the survey will be reported to the third session of the Asian Industrial Development Council. The Group has also participated in a similar survey of forest industries other than pulp.

Duration: 1968 - continuing

XXIV.13

FAO

Use of wood in housing

FAO has been promoting the application of timber and wood-based panels in housing construction. In view of structural developments, FAO has preliminary arrangements in cooperation with UNDP and with ITRC for an international consultation on the use of wood in structures and housing (especially low-cost housing). The consultation is scheduled for 1970. Architects specialized in wooden housing have been appointed as associate experts and are located in the various regions for on-the-spot collection of information and analysis of problems involved in the development of wooden low-cost housing.

The application of timber and wood-based panels to low-cost housing is also being actively pursued in a number of field projects. These activities include the preparation of layouts for the production of prefabricated housing components and the preparation of designs or of feasibility studies for the manufacture of prefabricated houses.

Duration: 1968-1970

XXIV.14

FAO

"War on Waste"

One of the priority tasks in the long-term programme of FAO is the reduction of losses between harvesting and consumption. Related to this task are the industrial utilization of secondary species, wood preservation and technologies based on the use of wood residues as raw materials.

Duration: 1968

XXIV.15

FAO

Cameroon - Forest and forest industries development (CMR-6)

The purpose of this project is to prepare an outline development plan for the country's forest resources as a whole and a detailed plan for a selected area in East Cameroon. A demonstration unit will be established in order to increase the domestic consumption of lesser known timbers and to train local personnel in related fields of forestry and wood utilization.

Towards these ends, a country-wide survey of various aspects of the forestry sector will be undertaken, a study of the position and prospects for the internal and external market for forest products will be made, a detailed management plan will be drawn up for the Deng-Deng forest area, and forest industries development possibilities will be identified and studied.

The design of prefabricated wooden houses and wood testing will be carried out under subcontract.

Duration: 5 years; February 1968 - February 1973

Estimated cost and

source of funds: \$1,345,700 UNDP/SF and Gov't contribution

XXIV.16

FAO

Central African Republic - Forestry Training and Demonstration Centre (CAF-1)

A training and development centre has been established to encourage and develop internal wood consumption, the development of forest industries and the export of forest products. A small-sized sawmill has been installed, as well as equipment for wood-working operations with a small logging centre closely co-operating with the sawmill. Personnel services, with the exception of consultants and one administrative officer, have been subcontracted to the Centre technique Forestier Tropical, France. Other Services are being provided directly through FAO.

The success of these operations has led to the approval of a supplementary earmarking by the UNDP/SF in June 1968 of \$362,000 (with an additional government contribution of \$138,000) to cover the cost of prolonging the project for two years and particularly, to allow an expansion of the activities concerned with boat building and the production of units for prefabricated wooden houses.

Duration: 18 May 1965 - May 1970 (anticipated completion date of May 1970 extended in June 1968 for two years).

Estimated cost and source of funds: \$1,398,900 UNDP/SF and Gov't contribution

XXIV.17

FAO

Ceylon - Pre-investment study on forest industries development (CY-5)

The purpose of this project is to carry out economic and technical feasibility studies of forest industries, to train forestry personnel and to prepare plans for long term development of forest utilization. An evaluation will be made of possibilities for establishing selected industries and of the necessary data for detailed planning of the expansion of logging and existing wood conversion operations, mainly sawmilling and plywood production. Long-term development planning also covers such fields of forest industries as pulp and paper, particle board and fibreboard.

Three forest products laboratories are carrying out laboratory tests on a subcontract basis, of selected wood species to support pre-investment studies for board products.

Duration: October 1963 - end 1968 (anticipated completion date of April 1967 has been extended by 21 months)

Estimated cost and source of funds: \$967,000 UNDP/SF and Gov't contribution

XXIV.18

FAO

Levyos - Forest III

An expert assisted the Levyos authorities in the development of government-owned permanent and multiple-use forests for their modernization and expansion.

Duration: 1966

Estimated cost and

source of funds: \$10,850 UNDP/FAO contribution

XXIV.19

FAO

China - Forest and forest industries development (CIA-1)

This project is concerned with the marketing of forest products, industrial feasibility studies, improvement of logging and wood conversion methods, and the strengthening of research in forest products. An over-all plan will be prepared for the efficient and rational development of forestry and forest industries so that they may make a larger contribution to the economic well-being of the island, especially through increased exports. Personnel services are being contributed through FAO, together with technical equipment and facilities for the training of local staff.

Duration: October 1965 - June 1969

Estimated cost and

source of funds: \$1,120,500 UNDP/SF and Gov't contribution

XXIV.20

FAO

Congo (Brazzaville) - Forestry training and demonstration centre (CON(B)-4)

The purpose of this project is to establish a training and demonstration centre at Mossendjo for training personnel in various aspects of forestry and timber utilization. This centre is to help to overcome the major obstacles to the fullest utilization of the country's forest resources and to the development of forest industries, including insufficient knowledge about the qualities of the available timber and its uses, the high cost of conversion and inadequately organized marketing.

By promoting the use locally of a greater variety of timbers, the project will also permit an increased export of the most valuable species. The project will include demonstrations of appropriate forest management methods in a pilot forest area close to the centre. A demonstration sawmill, woodworking shop and mechanical workshop have been erected and formal training courses began in October 1968.

The Centre Technique Forestier Tropical, France, will provide part of the experts under subcontract. Equipment and fellowships are also being furnished and some wood testing will be carried out under subcontract.

Duration: 5 years; October 1967 - October 1972

Estimated cost and

source of funds: \$1,523,000 UNDP/SF and Gov't contribution

XXIV.11

FAO

Fiji - Development of forests and forest industries

This project covers the two main islands of Fiji on which about only one third of the land is suitable for forestry. Its objectives are to plan large-scale afforestation for industrial development, to prepare proposals for the nationalization of Fiji's forest products industries and to examine their present and prospective markets. The project became operational late in 1968 and is expected to be completed by 1970 with assistance from the United Kingdom.

Duration: 1968-1970

Estimated cost and source of funds: \$438,400 UNDP/SF and Gov't contribution

XXIV.22

FAO

Gabon - Forest development (GAB-6)

The purpose of this project is to assist the Government in determining the extent and composition of the forests in the eastern zone of the country and in preparing a forestry and forest industries development plan. In particular, the project will conduct a low intensity reconnaissance survey of some 45,000 square kilometres in this eastern zone and carry out detailed forest inventories in selected areas therein. The objectives also include regeneration and growth studies in the surveyed forests, accessibility studies in the light of the proposed railway construction, investigations concerned with the establishment and expansion of wood-using industries, and the determination of possible sites for such industries.

Personnel services are being supplied under subcontract by the Centre Technique Forestier Tropical, France. Technical equipment and provision for wood testing are also foreseen.

Duration: September 1968 - March 1973

Estimated cost and source of funds: \$2,146,000 UNDP/SF and Gov't contribution

XXIV.23

FAO

Ghana - Woodworking Industries

An expert is advising on the development of the woodworking industries.

Duration: 1966-1969

Estimated cost and source of funds: \$72,000 UNDP/TA allocation

XXIV.24

FAO

Guatemala - Forestry Development Project (GTI-2)

The purpose of this project is to promote the development of forestry and forest industries development projects in Guatemala, primarily in El Peten, but also in other suitable forest areas in neighbouring provinces. The project is to be based on a survey of the forest resources, and related studies of extraction methods, forest management, industrial and marketing studies. Local personnel are being trained in modern forest inventory techniques, logging methods, road construction and forest industries development planning.

Duration: August 1963 - March 1969

Estimated cost and

source of funds: \$1,599,700 UNDP/SF and Gov't contribution

XXIV.25

FAO

Guinea - Forestry Training and Demonstration Centre (GII-3)

The purpose of this project is to assist in training intermediate staff and workers in the fields of forest and timber utilization, and to prepare a forest industries development plan. A wood utilization training centre has been established in the wet tropical forest area; it comprises logging, sawmilling and wood-working sections. A general survey of the forest resources will be made for the preparation of the forest industries development plan.

The project is being implemented by subcontracting personnel services to the Centre Technique Forestier Tropical, France, with the exception of the project manager and consultants. Technical equipment required for training and demonstration purposes as well as funds for fellowships are being provided by FAO/UNDP(SF).

Duration: September 1965 - September 1971

Estimated cost and

source of funds: \$2,194,459 UNDP/SF and Gov't contribution

XXIV.26

FAO

India - Pre-investment study of forest resources (IND-23)

The purpose of this project is to assist the Government in developing the country's forest resources and associated forest industries. The project is oriented towards planning the expansion of existing, and the development of new, forest industries (in particular pulp and paper).

The project involves investigation of the economic availability of raw materials in three selected zones, and investigation into the raw material requirements, existing plant capacities and marketing possibilities. A number of industrial developments warranting further investigation have been identified and are being evaluated. Areas suitable for industrial plantations are being defined.

The purpose of this project is to establish a centre for training intermediate level technicians and managers in logging, saw-milling and woodworking. The centre will also provide a technical bureau which will render assistance through advice, programming and arrangement of credit to existing and promising new forest industry enterprises owned and operated by Ivory Coast nationals. A forest area will be set aside for training and demonstration in logging and some research on logging techniques and equipment may eventually be done. A pilot sawmill for training and demonstration purposes is to be erected, and a woodworking shop for training in joinery and carpentry will be added to it.

Duration: 4 years; June 1965 - June 1969
Estimated cost and source of funds: \$1,102,750 UNDP:SF and Gov't contribution

XXIV.28 FAO

Ivory Coast - Forestry training, demonstration and advisory services (IVC-8)

The purpose of this project is to establish a centre for training intermediate level technicians and managers in logging, saw-milling and woodworking. The centre will also provide a technical bureau which will render assistance through advice, programming and arrangement of credit to existing and promising new forest industry enterprises owned and operated by Ivory Coast nationals. A forest area will be set aside for training and demonstration in logging and some research on logging techniques and equipment may eventually be done. A pilot sawmill for training and demonstration purposes is to be erected, and a woodworking shop for training in joinery and carpentry will be added to it.

The final report on this project should also serve as a logging manual and it is hoped that it will have a wide distribution in India.

Duration: August 1965 - August 1969

Estimated cost and source of funds: \$1,102,750 UNDP:SF and Gov't contribution

XXIV.29 FAO

Ivory Coast - Forestry training, demonstration and advisory services (IVC-8)

The purpose of this project is to establish a centre for training intermediate level technicians and managers in logging, saw-milling and woodworking. The centre will also provide a technical bureau which will render assistance through advice, programming and arrangement of credit to existing and promising new forest industry enterprises owned and operated by Ivory Coast nationals. A forest area will be set aside for training and demonstration in logging and some research on logging techniques and equipment may eventually be done. A pilot sawmill for training and demonstration purposes is to be erected, and a woodworking shop for training in joinery and carpentry will be added to it.

It is envisaged that the trainees at the centre will come from established forest enterprises and that the technical bureau, in particular, will continue to guide and advise its graduates and the enterprises in which they work.

Duration: 4 years; June 1965 - June 1969

Estimated cost and source of funds: \$1,102,750 UNDP:SF and Gov't contribution

Project description

The project is a five-year programme of forest survey, inventory and development in the Kingdom of Cambodia. The project will assist the Government in the preparation of a forest management plan and in the implementation of the plan.

The project will assist the Government in the preparation of a forest survey and inventory of the Kingdom of Cambodia. The project will assist the Government in the preparation of a forest management plan and in the implementation of the plan. The project will assist the Government in the preparation of a forest management plan and in the implementation of the plan. The project will assist the Government in the preparation of a forest management plan and in the implementation of the plan.

The first stage of the project, a forest inventory, involved the use of aerial photography, photo-interpretation and photogrammetric support. The results of the inventory were made available to the Government for the preparation of a forest management plan, erosion control and reforestation of forested areas. Forestry development within the initial project area is being correlated with a national study, particularly in the field of forest industries and industrial markets.

Duration: 5 years; October 1968 - October 1973

Estimated cost and

source of funds: \$5,070,455 UNDP/SEF allocation
\$4,500,000 (approx.) Gov't contribution
(including labour costs under the WFP)

Madagascar - Survey and development of selected forest area (MAG-8)

The purpose of this project is to prepare a forestry development plan based both on a general survey of the forest resources of Madagascar and on inventories of selected natural forest areas in the zone of the Island. The possibilities for production of pulpwood, pulp and paper will be investigated. Suitable areas will be located for large-scale afforestation with pine species, where the afforestation programme of the Government will be carried out. The project will assist in all phases of the governmental afforestation programme. Pilot plantation trials will also be executed in selected areas.

Personnel services are being supplied through FAO. Equipment for inventory, plantation trials, afforestation and miscellaneous operations is also foreseen. Aerial photography and forest industries feasibility studies will be carried out under sub-contract.

Duration: 4 years; November 1967 - November 1971

Estimated cost and

source of funds: \$1,474,500 UNDP/SEF allocation

XXIV.31

FAO

Malaysia - Forest Industries Development (MAL-11)

The purpose of this project is to assist the Government in strengthening the survey, planning and institutional basis for the development of forest industries in Malaysia. This includes an appraisal of the existing forest resources, a study of the present forest utilization practices and a review of the Government's forest policies, organization and research programmes. The project is to lead ultimately to the preparation of a national plan for the development of Malaysia's forest resources and industries, and will also assist the Government in a progressive implementation of the development proposals that are to create favourable conditions for investment in forest industries in Malaya, Sabah and Sarawak.

FAO will provide expert and consultant services and the Government will contribute professional services. The personnel allocations are complemented by those for fellowships, equipment and subcontracts for aircraft charter and data processing.

Duration: 4 years; August 1968 - August 1972

Estimated cost and

source of funds: \$2,200,000 (55 per cent of which is to be borne by UNDP/SF)

XXIV.32

FAO

Malaysia - Pilot plantations for quick-growing industrial tree species (MAL-12)

The purpose of this project is to assist the Government in establishing pilot plantations in which techniques can be demonstrated for establishing large-scale plantations of quick-growing long-fibred tree species as a continuous supply of cellulose raw material. The project concentrates on the selections of the most suitable plantation areas, the choice and testing of species and provenances, seed procurement and storage, nursery and planting techniques, tree improvement and seed orchard establishment, and the management and protection of the plantations.

FAO will provide expert and consultant services and the Government will contribute professional services. Financial provision is included for technical equipment and facilities for the training of local staff through fellowships.

Duration: 5 years; November 1967 - November 1972

Estimated cost and

source of funds: \$2,000,000 (38 per cent of which is to be borne by UNDP/SF)

Saudi Arabia - Food control laboratory

The project is about setting up two food control laboratories, one in Jeddah and one in Dammam. FAO has contracted the setting-up of the two laboratories and the training of Saudi Arabian technical staff in food analysis and food inspection to the Central Institute for Nutrition and Food Research, TNO, Zeist (Netherlands).

Six trainees from Saudi Arabia were sent to the Netherlands in May 1967. On their return to Jeddah in September 1967, action was initiated for the setting-up of the first laboratory with the assistance of five experts from the Netherlands. During the first phase of the work, the training of Saudi Arabian technical personnel was continued and the administrative set-up of the laboratory was worked out. The laboratory became operational during April 1968, when it started analysing samples of imported foods received from the customs.

Simultaneously, at Government request, the work on the setting-up of the Dammam laboratory was brought forward from November 1968 to May 1968. Two Netherlands experts were posted there and the laboratory fittings etc. ordered. Four trainees were sent to the Netherlands in June 1968 for six months. A four-month course for the training of food inspectors was organized in Jeddah from March to July 1968.

Subject to the arrival of laboratory equipment, it is planned to start regular work in the Dammam laboratory towards the middle of December 1968. Another group of trainees will be sent to the Netherlands in 1969.

In addition to the work of the Netherlands experts, FAO, from headquarters, is giving technical advice to the Government regarding food standards, organizational set-up for food control work and food legislation.

Duration: May 1967 - May 1970

Estimated cost and source of funds: \$475,000 F-in-T

Saudi Arabia - Analysis of plans and recommendations for the proposed milling industry (grain, flour and feed silos)

The FAO consultant completed the assignment early in 1968. Feasibility reports prepared in the past were analysed and preliminary guidance was given on site investigation, area allocation and on the training of personnel and management. The implementation of the entire project requiring investment may take three to five years.

Duration: Completed early 1968

Source of funds: F-in-T

XXIV.33

FAO

Nepal - Survey and demonstration for management and development of the Trisuli watershed (TIT-3)

FAO experts are providing technical assistance for the management and development of the Trisuli watershed in Nepal. The project is a demonstration scheme for establishing a more suitable approach to the protection and development of mountain areas.

Duration: 1966

Estimated cost and

source of funds: \$2,000,000 UNDP/SF

XXIV.34

FAO

Nepal - Survey and demonstration for management and development of the Trisuli watershed (TIT-3)

Forest industries development planning is a part of this project the purpose of which is to plan the managed development of the Trisuli watershed. It will also serve as a demonstration scheme for establishing a more suitable approach to the protection and development of mountain areas.

Personnel services and some technical equipment are being provided through FAO as the executing agency; aerophotographic maps will be made on subcontract.

Duration: August 1966 - July 1970

Estimated cost and

source of funds: \$1,165,100 UNDP/SF and Gov't contribution

XXIV.35

FAO

Nepal - Forest management and utilization

Assistance was provided in the evaluation of existing data on Nepalese timber resources and of potential markets for forest products, in order to assess the prospects for establishing a multi-purpose forestry and forest industries development. This is a preliminary study which is likely to be expanded by a subsequent Special Fund project.

Duration: 1968

Source of funds: UNDP/TA

XXIV.3C

FAO

Nicaragua - Investigation for the development of forest resources (NIC-9)

The purpose of this project is to assist the Government of Nicaragua in developing the pine forests in the north-east region of the country and to carry out technical and economic studies for large-scale investment in that region. Services in the fields of forest management, forest exploitation, silviculture, forest fire control, hardwood inventory and forest legislation will be contributed by UNDP/SF.

Duration: 4 years; 1968-1972

Estimated cost and

source of funds: \$1,000,100 UNDP/SF

\$1,551,000 Gov't contribution

XXIV.37

FAO

Pakistan - Forestry research and training programme (PAK-29)

This project aims at expanding and strengthening the Forest Research Institute of the College of Peshawar, which includes a Forest Products Division. The project will involve the establishment and expansion of a wood utilization research unit which is to supply the forest industry with information.

Duration: September 1968 - February 1969

Estimated cost and

source of funds: \$4,025,000 UNDP/SF and Gov't contribution

XXIV.38

FAO

Pakistan - Development of the East Pakistan Forest Research Institute, Chittagong (PAK-30)

This project aims at expanding and improving the Forest Management Department of the East Pakistan Forest Research Institute at Chittagong in accordance with the Third Five-year Plan (1965-1970). In the course of the implementation of the project support will be given to the Forestry Faculty of the Mymensingh College of Agriculture. Personnel services, as well as other research and training facilities, will be supplied through FAO.

Duration: February 1968 - April 1974

Estimated cost and

source of funds: \$2,196,000 UNDP/SF and Gov't contribution

XXIV.39

FAO

Sudan - Forestry research and education centre, Khartoum (SUD-3)

This project assisted the Government in establishing a Forestry Research Institute, including a Forest Products Laboratory, and provided improved facilities for training at the Forest Rangers College. The Forest Products Laboratory is continuing to carry out an investigation of the properties and uses of both present and potential commercial species of Sudanese timbers. Applied research in seasoning and woodworking has been carried out and advice has been given on the modernization of sawmilling.

Duration: December 1961 - April 1968

Estimated cost and

source of funds: \$1,715,600 UNDP/SF and Gov't contribution

XXIV.40

FAO

United Republic of Tanzania - forest industries development planning (IAG-18)

The purpose of this project is to assist the Government in preparing an over-all forest and forest industries development plan. The project will supply a logging unit, introduce up-to-date methods of logging, carry out technical operations, establish a pilot sawmill with saw-related woodworking operations, undertake specific tasks such as forest inventories, feasibility studies, make industrial tests on log sawing, and collaborate with the National Development Corporation in forest industries activities. The project will also advise on the most suitable set-up for the promotion of efficient utilization of forest resources and on the planned development of forest industries with emphasis on sawmilling.

Expert and consultant services will be provided through FAO. Equipment for the erection of a gang sawmill will be supplied, together with the equipment for logging operations, kiln drying, wood preservation etc. and for the secondary conversion of wood and wood-based panel products.

Duration: August 1967 - August 1970

Estimated cost and

source of funds: \$1,381,000 UNDP/SF and Gov't contribution

XXIV.41

FAO

United Republic of Tanzania - forest industries development

An FAO expert assisted the Government in the improvement of sawmilling and other woodworking operations and also advised on the preparation of a forest industries development programme.

Duration: 1968

Estimated cost and

source of funds: \$31,000 UNDP/IA allocation

XXIV.42

FAO

logg - Development of forest resources (IAG-10)

The purpose of this project is to assist the Government in the preparation of a comprehensive forestry and forest industries development plan and in the demonstration of intensive forest management and reforestation measures at selected sites. In particular, an inventory of the natural productive forests will be carried out. One main site in the neighbourhood of Atakpame will be selected as the focus of demonstrating operations in forest management of natural forests and reforestation.

Personnel services, as well as the supply of the required technical equipment, will be provided through FAO.

Duration: 3 years; August 1969 - August 1971

Estimated cost and

source of funds: \$1,457,200 UNDP/SF and Gov't contribution

XXIV.4

FAO

Turkey - forestry and forest industries development (TUR-26)

The main purposes of this project are to undertake surveys of forest resources in selected parts of the country and industrial feasibility studies and to prepare an outline plan for forestry and forest industries development. In particular, the project will assist in the modernization of inventory methods in the south-west and north-west of Turkey; evaluate the potential of these forests for forest industry development with the main emphasis on pulp and paper and sawn timber; undertake forest products marketing and industrial feasibility studies to determine the location, type and size of industrial plants to be established; and recommend improvements in logging methods and transportation. An over-all development plan for dealing with forest resources, prospective demands for wood products and with the means of satisfying these requirements will be prepared together with plans for the location and establishment of selected forest industries.

A survey aircraft with all the necessary equipment has been purchased with UNDP funds to which the Government has contributed in cash. In addition, photogrammetry and mapping, logging and extraction and other equipment has been purchased.

Duration: October 1967 - September 1971

Estimated cost and

source of funds: \$3,316,000 UNDP/SF and Gov't contribution

XXIV.44

FAO

Venezuela - Pre-investment survey of forestry development (VEN-5)

The purpose of this project is to prepare a plan for the development of forestry and forest industries in selected areas in Venezuela based on a forest inventory study and other related studies, such as investigations into properties of the more important tree species, timber marketing etc. This project is confined to an area of 25,000 square kilometres in the eastern part of the State of Bolivar, and in the south-eastern part of the Federal Territory Delta Amacure.

Personnel services as well as the required technical equipment have been provided through FAO.

Duration: December 1963 - December 1968

Estimated cost and

source of funds: \$2,464,093 UNDP/SF and Gov't contribution

XXIV.45

FAO

Zambia - Forest industries feasibility study (AM/67)

This project is assisting the Government in preparing and implementing a comprehensive plan for industrial forest development based on fast growing plantations. It will also examine technical aspects of extension and modernization of the plantation work. In particular, the project will make decisions on the mechanization of plantation maintenance and harvesting and in the implementation of the forest industries development plan. It is also assisting in carrying out applied research in timber utilization and in the development of the Forest Products Centre.

In addition, the project will carry out an appraisal of existing wood-using industries and will analyse present and future demands for forest products. Finally, it will examine the technical short and long-term feasibility of establishing or expanding wood-based industries in Zambia.

Experts and consultants services have been provided for, together with equipment for the logging and transport of plantation wood and for the expansion of the Forest Products Centre.

Duration: September 1967 - February 1971

Estimated cost and source of funds: \$1,844,000 UNDP/SF and Gov't contribution

XXIV.46

UNCTAD

Tropical timber bureaux in Europe and North America

(for description see chapter II.C.14)

UNIDO

The following field projects were developed during 1968

			<u>Pro-</u> <u>gramme</u>	<u>Experts</u> <u>m/m</u>	<u>Cost</u> <u>\$</u>
XXIV.47	Bulgaria	<u>Use of modern contact glues in the manufacture of furniture (269-65)</u>	TA	1/1	2,200
XXIV.48	Bulgaria	<u>Improvement of design and production in the furniture industry (269-65)</u>	TA	1/1	2,100
XXIV.49	Dominican Republic	<u>Evaluation of machinery and installation of a bagasse building-boards factory (67-146)</u>	SIS	Consultant firm	49,200
XXIV.50	Nepal	<u>Industrial feasibility survey of wood products (83-65)</u>	TA	1/2	3,850
XXIV.51	Singapore	<u>Improvement of wooden furniture product design (68-233)</u>	SIS	1/6	11,000

			Pro- gramme	Experts m/m	Cost \$
XXIV.52	Singapore	<u>Modernization and expansion of woodworking establishments (68-334)</u>	SIS	1/6	11,000
XXIV.53	Yugoslavia	<u>Sawdust panel manufacturing (294-57)</u>	TA	1/2	3,600

XXIV.54 WHO Research activities - Health and safety problems concerning
work and working conditions

Effect of certain occupational exposures to vibration,
especially in timber workers.

(For description see chapter XXXII.B.18)

CHAPTER XXV

PULP AND PAPER INDUSTRIES

- XXV.1 ECA Pulp and paper
The following studies were undertaken on the above subject:
 Central Africa - "Forest industries development in Central Africa"
 North Africa - "Forest industries development in North Africa"
Duration: 1968
- XXV.2 ECLA/
 UNIDO/
 FAO Advisory services on forest industries and pulp and paper industries
(For description see chapter XXIV.8)
- XXV.3 ECLA Latin American meeting on forest industries
(For description see chapter XXV.7)
- XXV.4 FAO Pulp and paper publications
The following studies were prepared in 1968:
 Pulp and Paper Development in Africa and the Near East, published 1968 in English and French;
 "Planning pulp and paper enterprises: technology and economics", for publication in 1969;
 A draft on "Surveys for the development of forest industries". This paper attempts to standardize the various types of industrial development study (preliminary industrial surveys, pre-investment, feasibility and engineering studies).
Duration: 1968
Source of funds: FAO regular programme



16.7.74

XX.73

FAO/UNICEF

Senegal - Dairy Industry Revival

An expert is advising on the development of the organization of a milk processing plant in Senegal with UNICEF assistance. In addition, training will be provided by an associate expert (dairy technology) in Senegal.

Duration: 1968 - continuing

Estimated cost and

source of funds: \$18,000 from UNDP/FA allocation

XX.74

FAO

Senegal - Institute of Food Technology, Dakar (SEN-5)

The purpose of the project is to assist the Institute in a coordinated programme of applied research in processing, preservation, packaging, storage and marketing of food, including fruits and vegetables, in the training of personnel for employment at various levels in food industries and in providing advice to the Government and industry.

Emphasis is given to: improvement of the methods of processing locally available foods in order to produce products that are nutritious, adapted to the taste of the consumer and within his economic reach; studies to improve the traditional methods of storage and preservation of the major food commodities; studies of methods for developing effective promotion and marketing services; feasibility studies for the creation of viable food industries; and the study of food regulations and food standards on behalf of the Government food control services.

The experts assigned include a food technologist and specialists in food production and marketing economy, fish processing, cereal and meat processing, food storage, fruit and vegetable processing, chemical analysis, food microbiology, food promotion and food legislation. In addition, 72 man-months of fellowships are provided.

Duration: 1966-1971

Estimated cost and

source of funds: \$1,035,000 UNDP/SF allocation

\$851,200 Gov't counterpart contribution

\$290,000 for equipment

XX.75

FAO

Sudan - Food processing research centre

The project aims at the establishment of services for investigation of food processing problems. It involves the setting-up of a main centre in the Khartoum area, including microbiological laboratory, food technology laboratory, freezer room and various training facilities. The four sub-stations, although forming an integrated part of the project, are established and equipped at government expense, and they are used for demonstration and training programmes and rural grading, packing and marketing of

XX.
76

FAO

fruit products. A marketing expert in packing and grading work assisted the project and carried out a survey of the economic aspects of existing processing facilities, including an oil seed extraction plant, a dist. pharmaceutical alcohol plant, and fruit and vegetable canning facilities.

Duration: 1965-1970

Estimated cost and

source of funds: \$739,000 UNDP SF allocation
\$678,000 Gov't contribution

XX.76

FAO

Sudan - Agricultural products processing

An associate expert was appointed in 1967 to serve with the FAO/UNDP(SF) Food Processing Research Centre project (SUD-14). His services are extending through 1969.

Duration: 1968 - continuing

Source of funds: F-in-I from Netherlands

XX.77

FAO/UNICEF

Syrian Arab Republic - Dairy industry development

An expert is advising on milk plant management for the Damascus and Aleppo plants to which UNICEF already has supplied parts of the dairy equipment. Emphasis is placed on milk sterilization.

Four associate experts (dairy technology and dairy engineering) will assist the expert in 1969.

Duration: 1968-1969

Estimated cost and

source of funds: 1968 - \$4,500 from UNDP/TA allocation

XX.78

FAO

Turkey - Research and training centres for the production, processing and marketing of fruit and vegetables (TUR-13)

The purpose of the project is to increase the efficiency of the horticultural and related industries in Turkey through research and training, thus improving the supplies of fresh and processed fruit and vegetables, both for export and local markets.

The programme of work covers the following activities:

- Research in production with the aim of increasing yields and improving the quality of fruit and vegetables through efficient cultural practices including irrigation, fertilizer use, and pest and disease control
- Selection of superior varieties and strains of fruit trees, vines and vegetables as well as the solution of practical problems pertaining to the production and distribution of recommended seeds and rootstocks

XX.7
(cont'd)

FAO

- Research on the production of processed products of vegetables with the aim of producing the varieties of most suitable and economical cost for the country, will be placed in quality control and standards with a view to export markets.
- The training programme of the project, covering production, processing and marketing, will be in the form of in-service training and demonstration of modern techniques and will consist mainly of short courses in co-operation with the universities and horticultural schools in the areas in question. Extension workers, managers of nurseries and food technologists will participate in these courses.

The twenty experts assigned to the project include specialists in the production of vegetables, glasshouse products, olives, deciduous and citrus fruits, viticulture, fruit and vegetable canning, olive oil processing, quality control, dehydration and dried fruit processing, citrus processing, and cold storage. In addition, 324 man-months of fellowships are provided. In co-operation with the FAO/Industry Co-operative Programme (see chapter XXIII.D), assistance is being provided to a Turkish group of industrial concerns for the establishment and operation of a toezso paste processing plant as well as for other food products.

Duration: 1966-1971

Estimated cost and

source of funds: \$1,997,100 UNDP/SF allocation
\$2,125,089 Gov't counterpart contribution
\$403,000 for equipment and supplies

XX.79

FAO/WHO/
UNICEF

Turkey - Protein-rich food industry development

Based on the experience acquired in a similar project in Algeria (see chapter XX.10) FAO, WHO and UNICEF agreed with the Government of Turkey to create manufacturing facilities for protein foods for infants and children. - Acceptability trials, package design and consumer marketing studies are under way. At the completion of this phase, the equipment for the manufacturing of the product will be ordered. The production lines will be erected at the premises of the dairy plant of the Turkish Milk Organization in Istanbul. The project also provides for the modernizing of a soya processing plant which will produce edible soy flour for use in the formula of infant food.

Duration: 1967 - continuing; phase I completed end 1968.

Estimated cost and

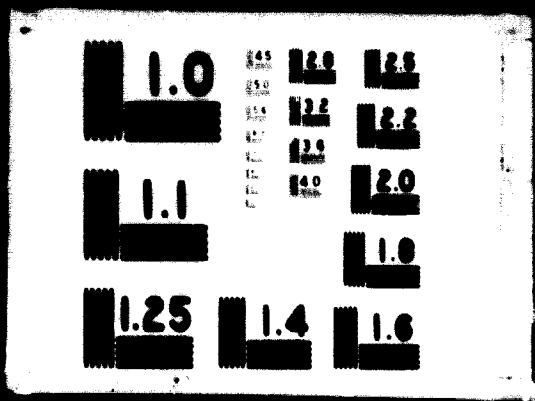
source of funds: 1967-1968 - \$70,000 from UNICEF (acceptability and market survey phase)
* \$840,000 (approx.) Gov't counterpart contribution
\$350,000 for equipment, fellowships and commercialization

- XX.80 FAO Turkey - Dairy industry development
Two experts are assisting and advising the Government on the preparation, evaluation and implementation of dairy industry projects and on the preparation of the layouts for milk plants which are to be established.
Duration: 1968 - continuing
Estimated cost and source of funds: \$41,400 from UNDP/TA allocation
- XX.81 FAO Uganda - Dairy industry development
A dairy technologist advised on the organization of the milk collection schemes near Kampala and Entebbe, with emphasis on structural and dairy technological aspects.
Duration: 1968
Estimated cost and source of funds: \$18,000 from UNDP/TA allocation
- XX.82 FAO/
UNESCO United Arab Republic - Mansoura Polytechnic Institute for Higher Education
A food industry training expert is included in this UNESCO operated project for training technicians for the food industry and allied services.
Duration: 1968 - continuing
Estimated cost and source of funds: 24 man-months UNDP/SF
- XX.83 IAEA Regional study group meeting on food irradiation for the Balkan countries
IAEA convened a regional study group meeting on food irradiation for the Balkan countries in Bulgaria in June 1968. This regional study group meeting was attended by 61 scientists from the Balkan countries (Bulgaria, Greece, Romania, Turkey, Yugoslavia) and nine experts coming from Canada, Denmark, Hungary, the Netherlands, the United Kingdom and the United States. IAEA provided two scientific secretaries. The papers presented by the experts and the scientific secretaries at the meeting were concerned with various aspects and applications of food irradiation, such as radiation sources, dosimetry, the objectives and status of irradiation of grain, meat, poultry, eggs, fruits, vegetables, fish and animal feeds. Special attention was devoted to the wholesomeness and legislative aspects of food irradiation.
Authority: IAEA
Duration: June 1968
Estimated cost and source of funds: \$9,500 (IAEA contribution)

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D O

4 1 2 5



World survey

The FAO world survey on the world's pulp, paper and paperboard production capacity was prepared and presented to the ninth session of the FAO Advisory Committee on Pulp and Paper, held in Rome in May 1968. The survey provided figures for the year 1967 and estimates for the period 1968 to 1971 and showed that pulp-making capacity had expanded at an average yearly rate of 1.9 per cent since 1963 and was expected to reach 122 million tons by 1971. The survey also indicated that plant capacity for paper pulp was coming more into line with that for paper and paperboard. Plant capacity for making newsprint, after reaching the 22 million ton figure in 1968, was expected to expand to about 23½ million in 1969, 24½ million in 1970 and 25 million in 1971. Another item of interest to the Committee was an estimate of production and export potential of pulp and paper by 1975.

Duration: May 1968

XXV.6 FAO

Uruguay - Pulp and paper development

A pulp and paper specialist advised on possibilities for pulp and paper development.

Duration: Completed in May 1968

Estimated cost and

source of funds: \$26,000 from UNDP/TA allocation

XXV.7 FAO

Advisory missions

(For description see chapter XXIV.11)

UNIDO

The following field projects were developed during 1968

			<u>Pro- gramme</u>	<u>Experts n/m</u>	<u>Cost \$</u>
XXV.6	Rulgaria	<u>Coloured coatings for chrome paper and board (269-65)</u>	TA	1/1	2,100
XXV.9	Indonesia	<u>Improving the organization and management of state-owned paper mills (67-170)</u>	SIS	2/24	48,000
XXV.10	Peru	<u>Feasibility of establishing a bagasse pulp and paper mill (67-161)</u>	SIS	consultant firm	72,000
XXV.11	San Marino and Vatican	<u>Rehabilitation of a paper mill (68-303)</u>	SIS	1/1	3,000

XXV.1.4

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Committee on Industry and Natural Resources
Twenty-third session, 1967
Agenda item 10

Offshore surveys in the North Atlantic

XXV.1.5

172

Committee on Industry and Natural Resources
Twenty-third session, 1967
Agenda item 10

The purpose of the 1967 survey was to explore and
exploratory work in the area of the North Atlantic
the object of the survey is to identify areas of potential
that could be of interest from the point of view of petroleum
potential, and investigations in these areas are necessary
for locating concretely, exploring and developing them. The
survey will eventually cover all the offshore areas of ECLA
member countries. In certain cases it will warrant sufficient
interest for follow-up work by individual member countries.
No drilling is intended for inclusion in the survey.

The fifth session of CIPR and the fourth session of its
Technical Advisory Group were held at Tokyo, from
10 to 19 June 1968. At this session the CIPR formulated a
total of six major projects for implementation in 1968-1969.
The first of these, concerning the co-ordinated programme of
offshore surveys, contains thirty-one sub-projects relating
to prospecting for mineral resources in the offshore areas
of the member countries and in their intervening zones, and
also in the Gorda Shelf area. Wherever one of these projects
have been carried forward from previous years, others are to
be implemented in 1968-1969; some of these sub-projects were
completed in 1968. With the expansion of the Committee, new
projects will be added from time to time.

Authority: Committee on Industry and Natural Resources,
eighteenth session, 1966; ECLA, twenty-third session, 1967

Duration: 1968 - continuing (fifth session 10-19 June 1968)

Estimated cost and
source of funds: The total value of the assets - including
advisory services, equipments, loans and outright grants and
training facilities - is \$3 million which is contributed by
the industrialized countries, CIPR and ECLA. In addition,
10 man-months (Professional) are charged to ECLA regular
budget.

XXV.1.6

173

Working Party on Mineral Geology

The purpose of the Working Party is to review the current
progress, review and revise the various reports on mineral
geology, and to identify areas of potential interest for
further research and development. The Working Party is
meeting in London, 1968.

XXVII.7
ECAF

ECAF

compile and coordinate geological information which is transmitted yearly in the countries of the region; to review the progress of geological surveys made by the countries of the region, and to study and make recommendations regarding the problems, both technical and economic, which might be handicapping the execution of this work; and also to review and guide the work of the secretariat on geological and related economic matters in order to ensure maximum practical value to the countries of the ECAFE region.

Meetings of the Working Party are held every two years. The last, seventh, session was held at Teheran, Iran from 22 to 29 July 1968. During this session the work programme was drawn up which included sub-projects for implementation with an indication of their respective dates for completion.

Preparation and revision of regional geological maps are undertaken in co-operation with the Commission for the Geological Map of the World and its sub-commissions, UNESCO and the United Nations Cartographic Office.

Authority: Committee on Industry and Trade, ninth session, 1957; ECAFE, fourteenth session, 1958

Duration: 1958 - continuing (seventh session 22-29 July 1968)

Source of funds: ECAFE regular budget

XXVII.7

ECAFE

Sub-committee on Mineral Resources Development

The purpose of the Sub-committee on mineral resources development is to promote the development of the mineral resources of the countries of the region; to study the problems of geological surveys and of mining, beneficiation, utilization and marketing of minerals; to review progress made by the countries of the region in the development of their mineral resources; and to promote regional and international co-operation in the development of mineral resources in the ECAFE region.

The Sub-committee meetings are held every two years. The last, seventh, session met in Teheran from 29 July to 3 August 1968. During this session, the work programme was drawn up which included sub-projects for implementation with an indication of their respective dates for completion.

Authority: Committee on Industry and Trade, sixth session, 1954; ECAFE, tenth session, 1954

Duration: 1954 - continuing (seventh session, 29 July-3 August 1968)

Source of funds: ECAFE regular budget

- 1968
- XXVII.8 ECE Mining Development: review - and orientation of international
(For description see chapter X, III.2)
- XXVII.9 ECE Sources of mineral raw material for the fertilizer
industry in Asia and the Far East
(For description see chapter X, III.2)
- XXVII.10 ECE Air Pollution by Coking Plants
A study on this subject was first begun by an Ad hoc Group of Experts on Coking at the request of the second session of the Sub-committee on Solid Fuel Utilization (1964). The present study (ST/ECE/COAL/26) deals only with air pollution caused by coke-oven operations proper. Air pollution resulting from the operations of the chemical departments of coking plants is the subject of a further study by the Group of Experts on Coking.
Authority: Sub-Committee on Solid Fuel Utilization, second session, 1964 (COAL/U/4)
Duration: 1964-1966 (Document ST/ECE/COAL/26 was published in 1968)
- XXVII.11 ECE Symposium on Hydraulic Transport of Coal Underground and
at the Surface
This Symposium was held in Katowice, Poland, from 11 to 15 October 1966 in connexion with the programme of work of the Sub-committee on Mining Problems in response to an invitation from the Government of Poland. The report on the Symposium (ST/ECE/COAL/28) consists of two parts. Part I comprises a general report prepared on the basis of communications transmitted by various countries and the discussions which took place at the Symposium; Part II contains the communications transmitted by the various countries prior to the Symposium. The report was issued in 1968.
Authority: Coal Committee, sixty-first session, 1965 (E/ECE/COAL/179)
Duration: 1965-1966 (Document ST/ECE/COAL/28 was issued in 1968)
- XXVII.12 ECE Concentration Indices in the European Coal Industry
Following a request of the Coal Committee, an Ad hoc Meeting of Experts on the Concentration of Workings and Mechanization of Mining Operations was called in 1961. At their meeting in March 1962, the experts decided to send the secretariat every

02.01
02.02

ICE

year the concentration indices adopted: colliery concentration indices and face concentration indices. In accordance with the Coal Committee's decision E/ICE/COAL/155 in 1961, the experts recommended that these indices should be published annually. The publication is comprised of: definitions and explanatory notes; general remarks on the comparability of the indices; colliery concentration indices; and face concentration indices.

Authority: Coal Committee decision E/ICE/COAL/155 (1961)

Duration: Continuing (Vol. 5 for 1967 was published in 1968)

XXVII.13

ICE

Consolidated Report on Technical Progress as a Means of Raising the Productivity of Labour in Underground Colliery Transport

This document is based on reports prepared by representatives of various European countries at the request of the Subcommittee on Mining Problems in 1964. The report deals with two main questions: basic technical and economic parameters for the various underground transport techniques; the efficiency of the various underground transport techniques in relation to mine layout. Underground transport was not studied in 1968 but other means of raising productivity in coal-mining were under consideration. The report (SI/ECE/COAL/31) was issued in 1967.

Authority: Subcommittee on Mining Problems, second session, 1964 (COAL/P/24); Group of Experts on Productivity, fifth session, 1967 (COAL/PROD/10)

Duration: 1964-1968

XXVII.14

ICE

Mechanization and Automation in Coking Plants

This publication is the result of studies carried out by the Group of Experts on Coking, a subsidiary organ of the Subcommittee on Solid Fuel Utilization which, in turn, reports directly to the Coal Committee of ICE. The study (SI/ECE/COAL/19) was published in 1967, but the problem is under continuous consideration by the above-mentioned subsidiary organs of the Coal Committee.

Authority: Subcommittee on Solid Fuel Utilization, second session, 1964 (COAL/II/4); the Coal Committee, sixtieth session, 1964 (E/ICE/COAL/117)

Duration: Initiated in 1964 - continuing

xxvii.16

ECE

Selected Problems on the Preparation of Coal for Coking

At its first session, held in 1963, the sub-committee on Solid Fuel Utilization requested rapporteurs to prepare reports based on work carried out in the field of coal preparation. The document is a consolidated report based on those reports. It describes methods, other than flotation, used in coking and methods applied to prevent water pollution resulting from the preparation of coal (design of plant, water circulation diagrams). The report (CE/ECE/COAL/25) was issued at the end of 1968.

Authority: Sub-committee on Solid Fuel Utilization, first session, 1963 (COAL/0/2); Group of Experts on Coking, fifth session, 1968 (COAL/0/15)

Duration: 1963-1968

xxvii.17

ECE

The use of mathematical and operational research methods in the coal-mining industry

In 1963 and 1965 ad hoc meetings of a group of experts on operational research took place to study problems related to the coal mining industry of Europe. The problems were again considered at the ad hoc group session in October 1968, at which time further reports were presented. Other documents are in the process of preparation.

Authority: Coal Committee, fifty-fifth session, 1962

Duration: 1962 - continuing

xxvii.18

ECE

Annual Bulletin of Coal Statistics for Europe

(For description see chapter I.B.9)

- XXVII.14 ECF The coal situation in Europe and its prospects.
(For description see chapter I.A.14)
- XXVII.15 ECF New means for the bulk transport of coal
(For description see chapter I.C.4)
- XXVII.16 ECF Quarterly Bulletin of Coal Statistics for Europe
(For description see chapter I.B.13)

XXVII.22 ESA

Resources of the sea

A report has been prepared, with the help of Consultants, on the resources of the sea (minerals and food, excluding fish) beyond the continental shelf, and on the techniques for exploiting them. A progress report was submitted to the ESA Council at its forty-fourth session.

The General Assembly, in resolution 2172 (XXI), requested the Secretary-General to prepare a report on the activities of organizations and Member States in the field of marine science and technology and to formulate proposals for an expanded programme of international co-operation and promotion of marine science education. The Division and other United Nations organizations concerned participate in the preparation of this report which has been entrusted to the ad hoc unit on marine science and technology of the Department of Economic and Social Affairs.

The General Assembly, in resolution 2340 (XXII), established an ad hoc committee to examine the question of the peaceful uses of the resources of the sea-bed and ocean floor beyond the limits of present national jurisdiction. The General Assembly further requested that the studies being undertaken on resources of the sea and on the activities in marine science and technology be submitted to the ad hoc committee. This was implemented.

Authority: General Assembly resolutions 2172 (XXI) and 2340 (XXII); Council resolution 1112 (XL)

Duration: 1968-1969

Estimated cost: 1968 - 8 man-months (Professional)
10 man-months (Consultant)

XXVII.23

E.A.

Survey programme for the development of mineral resources

The Council, in resolution 2173 (XXI), requested a study of expert advice on the "Mineral Resources Development Survey Programme" for the development of mineral resources. It approved the programme of the survey programme formulated by the three groups of experts in resolution 187 (XIII), the Council requested the Secretary-General to develop a general methodology to be used for the assessment of mineral, water and energy resources in developing countries and to make a preliminary selection of countries in which surveys could be carried out after consultation with Governments and regional economic commissions. The work of the United Nations in the field of natural resources will also be considered in relation to that of the specialized agencies and regional economic commissions and a report will be submitted to the General Assembly at its twenty-third session.

Authority: General Assembly resolution 2173 (XXI); Council resolution 1287 (XIII)

Duration: 1968-1969

Estimated cost: 1968 = 48 man-months (Professional)

XXVII.24

ESA

Interregional Seminar on Mineral Economics

This Seminar will concern itself with the effects of mineral resources development on the economy of a country. The effects of long-term price fluctuations of minerals, international trade in minerals, mineral quotations and exchange, mineral substitution, significant changes in mineral economics and international technical and financial co-operation for mineral resources development will also be subjects for discussion. This seminar is expected to be held in 1970; preparatory work was started in 1968.

Authority: Council resolutions 345 (XII) and 877 (XXXIII)

Duration: 1968-1970

Estimated cost: 4 man-months (Professional)
2 man-months (Regional adviser or interregional adviser)

XXVII.25

ESA

Small-scale mining within the social and economic context of developing countries

The impact of small-scale mining in some typical developing countries, for example, Bolivia, Burma and India will be studied and suggestions made on guidelines for effective exploitation of small mines within the framework of the overall mineral activity of the country concerned.

XXVII.26

Authority: Council resolutions 34 (XII), 82 (XXIII) and 1033 (XXXV)

Duration: 1968-1970

Estimated cost: 1968 - 2 man-months (Professional)
4 man-months (Consultant)

XXVII.27

Study on the relative position of certain mineral ores as foreign exchange earners

Many developing countries earn a substantial portion of their foreign exchange from base metal ore production and export. Fluctuations in exports and in the international prices of these metals and ores naturally affect the economy of producing countries. This study will discuss the importance of some of the base metals as foreign exchange earners and will attempt to evaluate their present importance, particularly in relation to investment for economic development.

Authority: Council resolutions 345 (XII), 877 (XXXIII) and 1033C (XXXV)

Duration: 1968-1970

Estimated cost: 1968 - 8 man-months (Professional)
4 man-months (Consultant)

XXVII.27

ESA

Interregional Seminar on the Role of Government in the Development of Mineral Resources

(For description see chapter XXXI.B.3)

XXVII.28

IAEA

Symposium on Nuclear Techniques in the Prospecting and Development of Mineral Resources

The Symposium, held in Buenos Aires from 5 to 9 November 1968, reviewed in detail the most recent developments in evaluating all minerals and metals. The Symposium was attended by some 80 participants from twenty member states; 34 papers were presented.

Authority: IAEA Programme

Duration: 5-9 November 1968

Estimated cost: \$16,500

XXVII.29

IATA

Yugoslavia - Statistical questionnaire

An expert in mineral exploration and production will be sent to Yugoslavia for two months to advise on the statistical methods and procedures for mineral analysis.

Duration: 2 months; 1968

Estimated cost: \$3,500

Equipment cost: \$1,000

XXVII.30

ILO

Second Tripartite Technical Meeting for Mines other than Coal Mines

Apart from a general report, two technical reports have been prepared dealing with the employment and conditions of work in mines other than coal mines, in the light of fluctuations in the international mineral trade, and measures - particularly training - needed to meet safety and health requirements in mines other than coal mines.

Authority: ILO Governing Body

Duration: Initiated in 1967, expected date of completion 1969 (the meeting was held from 18-19 November 1968)

Estimated cost and

source of funds: \$187,295 from ILO regular budget

XXVII.31

WFP

Afghanistan - Increasing productivity of coal mines

The three coal mines of Karkar, Ishpushita and Dara-e-ozaim to raise their annual production by at least 100 per cent in order to meet the national demand for fuel. WFP is providing food rations to 1,500 workers and their dependants, totalling 2,700 beneficiaries, over a period of 1,035 days, to supplement the low wages being paid at present at the mines.

Duration: 3 years; March 1967-March 1970

Estimated cost: \$475,200

XXVII.32

WFP

Turkey - Mineral prospecting and exploration

The purpose of this project, which is the extension of a project that was completed successfully, is to provide technical assistance to the Mineral Research and Exploration Directorate. The technique carried out field studies with the object of assessing the resources of various mineral, industrial raw materials and of power. WFP will provide food for three years to 1,400 workers and their families, with an employment of wages in kind and an equipment to their last wages.

Duration: 3 years; January 1968-January 1970

Estimated cost: \$1,140

27.11.67

WFP

Turkey - Lignite mines development programme

The purpose of this project is to increase the production of lignite in the districts of Tuncbilek and Seyitömer. WFP assistance will make it possible to provide two warm meals per day in canteens to 1,100 single workers living in barracks at the mine sites, and food parcels for 5,600 married workers. The funds thus released will be used towards meeting the costs of local labour and raw material for such undertakings as the construction of an educational and training centre, the establishment of summer camps and the provision of transport for the workers.

Duration: 2 years; June 1967-June 1969

Estimated cost: \$469,000

			1975-76	1977-78	1978-79
			TA	TA	\$
XXV.12	United Arab Republic	<u>Supervising the operation of Egyptian pulp and paper mill (67-78)</u>			
XXV.13	Yugoslavia	<u>Production of bleached sulfate pulp paper (294-57)</u>	TA	1/6	10,400
XXV.14	Yugoslavia	<u>Development of process to dispose waste waters from wood pulp (294-57)</u>	TA	1/6	10,400
XXV.15	Yugoslavia	<u>Manufacture of kraft pulp paper (294-57)</u>	TA	1/6	10,400
XXV.16	Yugoslavia	<u>Paper coating and sizing (294-57)</u>	TA	1/6	10,400
XXV.17	Yugoslavia	<u>Production of neutral sulphate pulp and paper (294-57)</u>	TA	1/6	10,400
XXV.18	Yugoslavia	<u>Paper technology (294-57)</u>	TA	1/6	10,400
XXV.19	Yugoslavia	<u>Straw pulp production (294-57)</u>	TA	1/6	10,400
XXV.20	Yugoslavia	<u>Training chemists in analytical methods relating to celluloses and hemicelluloses (294-57)</u>	TA	1/6	10,400
XXV.21	Regional	<u>Planning of new pulp and paper industries (10-495)</u>	REG	1/2	17,000

CHAPTER XXVIII

ENERGY AND POWER, AND ENERGY
AND POWER-BASED INDUSTRIES

- XXVIII.1 ECA Study of possible high voltage interconnexions between the countries of the West African subregion
- A study on the above subject has been carried out jointly in 1968 by ECA and the UNDP. The main operational prospects at present, involve interconnexions between Dabomey, Ghana, Iloho and, possibly, the Ivory Coast.
- Duration: 1968
- XXVIII.2 ECA Study of high voltage interconnexions covering Algeria, Morocco and Tunisia
- A similar study of high voltage interconnexions covering Algeria, Morocco and Tunisia has also been under preparation. Further progress depends on policy decisions by the three countries concerned.
- Duration: 1968 - continuing
- XXVIII.3 ECA Study of co-operation in energy development
- ECA has under preparation a study of co-operation in energy development between Zambia and the Democratic Republic of the Congo. Both countries have a relatively high energy potential, but it would be more economical to construct one major multinational power plant instead of two smaller projects, on a national basis, in order to cover future short-term energy requirements in the Katanga copper-belt area. This study also awaits authorization by the two Governments for further progress.
- Duration: 1968 - continuing
- XXVIII.4 ECA Subregional energy meeting
- ECA, in accordance with the recommendations of the meeting on co-operation in the Central African subregion, organized a subregional energy meeting in 1968 for the establishment of an intergovernmental organ to co-ordinate co-operative efforts of the Central African countries in the field of energy. As a result of this meeting, an application for a preliminary phase has been prepared for submission to the UNDP by the Governments of the Central African subregion.
- Duration: 1968 - continuing

- XXVIII.7ICA

Study of co-operation in energy development between Ghana and Kenya

A similar study of Ghana-Kenya co-operation in energy development in the water-preservation and other projects with the establishment of machinery for dealing with energy questions within the framework of the emerging East African Economic Community.

Duration: 1968 - continuing
- XXVIII.8ICA

Survey on manpower in the field of energy

(For description see chapter VI.A.1)
- XXVIII.9ICA

Mining industries

(For description see chapter XXVII.2)
- XXVIII.9ICA

Regional institute for fuel and energy

(For description see chapter XXV.B.3)
- XXVIII.9ICAFI

Sub-committee on Energy Resources and Electric Power

The main purpose of this Sub-committee is to hold meetings on the development of energy resources and electric power and on other related matters covering member countries of ICAFE. The secretariat organizes and services the sessions of the Sub-committee. The eleventh session was held in Singapore in June 1968. Among the main items of the agenda were the problems of energy resources' survey, application of nuclear energy for power generation and desalination of sea water and problems of atmospheric pollution arising from fuel burning power stations.

Authority: Committee on Industry and Natural Resources; ICAFE

Duration: Eleventh session, Singapore, June 1968. Sessions are tentatively scheduled to be held every two years

Source of funds: ICAFE regular budget
- XXVIII.10ICAFI

Electric power development and planning - dissemination of information

The purpose of this project is to disseminate information pertaining to various aspects of the electric supply industry. The information published is useful for studies and planning by developing countries. Electric Power in Asia and the Far East is the only annual publication compiled and issued by

XXVIII.11

ECAFE

Electric power development and planning
The purpose of this project, which is a part of the project of Government, is to provide advisory services to Governments on:
Authority: Sub-committee on Energy Resources and Electric Power; Committee on Industry and Natural Resources; UNCTAD
Duration: 1968 - continuing
Source of funds: ECAFE regular budget and, if necessary, funds from OIC

XXVIII.11

ECAFE

Management training in electric power development and planning
The purpose of this project, which is a part of the project of Government, is to provide advisory services to Governments on:

- Training facilities in the operation and maintenance of large complex modern thermal power plants with sophisticated control and instrumentation system;
- The establishment of power system managerial organizations and other training of various levels of managers and operators.

The methods of implementation consist of advisory services to Governments, including provision of consultants.
Authority: Sub-committee on Energy Resources and Electric Power; Committee on Industry and Natural Resources; UNCTAD
Duration: 1968 - continuing
Source of funds: ECAFE regular budget and, if necessary, funds from OIC

XXVIII.12

ECAFE

Electric power development and planning: dissemination of information - annual review
(For description see chapter 11.6)

XXVIII.13

ECAFE

Electric power development and planning
(For description see chapter 11.6.6)

XXVIII.14

ECAFE

Energy resource development - comprehensive energy surveys and studies on long-term energy balance of the region
(For description see chapter 11.6.7)

- XXVIII.15 ECAFE Electric power development and planning - studies of technical developments
(For description see chapter I.C.1)
- XXVIII.16 ECAFE Training in petroleum development, NIOC, Iran
(For description see chapter VI.H.1)
- XXVIII.17 ECAFE ECAFE/UNACAST Regional Group for Asia
(For description see chapter XXX.A.4)
- XXVIII.18 ECE
(1967 CR: XXVII.10) Design and operation of thermal power plants
The Working Party on Thermal Power Plants has made studies on several problems in the field of the design and operation of thermal plants. Many of these studies have been published in the seven volumes issued on the series of problems in the design and operation of thermal power stations (ST/ECE/EP/23). Studies to be published in the next volumes of this series, are: the problem of the discharge of hot water into rivers and bodies of water with reference to biological processes; the mechanization and automation of methods of construction and assembly work in the building of thermal power stations.
The following studies are in course of preparation: an analysis of new technical solutions for the full automation of power stations consisting of blocks and the utilization of regulating computers and electronic computers; a technical and economic study of the chemical characteristics of the water steam cycle in thermal power stations.
Moreover the working party contributes to the following studies undertaken jointly with the Coal Committee and the Committee on Gas: optimum economic exploitation of the aggregate formed by high output thermal power stations, the mines which supply it with coal and the means of conveying the coal and generated power; special aspects of the use of natural gas for electricity production.
Authority: Committee on Electric Power
Duration: Continuing
- XXVIII.19 ECE Economic and technical aspects of gas storage by the various systems in current use
This study deals with the economic and technical aspects of underground storage of gas (a report on this subject (ST/ECE/GAS/11) was issued in 1965). The study discusses the problems of: the underground storage of gas in water-bearing

XXVIII.19
(cont'd)

ECE

beds; safety problem arising in connection with the possible pollution of drinking water resources; and the danger and storage of gas in depleted oil or gas deposits.

The consolidated report on the first two problems was approved by the Working Party on the Transport of Gas in 1968. The matter is to be reviewed every three years. The third problem is now under consideration of the Working Party.

Authority: Working Party on the Transport of Gas, first session, 1966; endorsed by the Committee on Gas in 1966.

Duration: 2 years; 1968-1969

XXVIII.20

ECE

Economics of the conversion of distribution networks to natural gas

The study is aimed at identifying the problems likely to arise during the conversion of distribution networks of natural gas and at collecting information on the experience gained in countries that have gone or are going through this process. The problems are also under consideration by the Working Party on the Preferential Uses of Gas.

Authority: Committee on Gas, thirteenth session, 1967

Duration: 2 years; 1968-1969

XXVIII.21

ECE

Economic aspects of long-distance transmission of gas by pipelines

In 1968 a report on the economic aspects of long-distance transmission of gas by pipelines was being prepared. This report, after examination by the Working Party on the Transport of Gas, will be issued in 1969.

The study deals with: the optimum degree of automation and telematics in the operation of main gas pipelines; the economic pressure for long-distance gas transmission by pipelines; the economic aspects of long-distance transmission of gas by pipelines; and gas transport economy in interconnected gas distribution systems.

Authority: Decision taken by the Working Party on the Transport of Gas at its first session in 1966; endorsed by the Committee on Gas at its thirteenth session in 1967

Duration: 3 years; 1968-1970

XXVIII.22

ECE

The gas situation in Europe and its future prospects

This is a periodic publication containing information on the gas situation during the previous year and an examination of the trends of various factors likely to affect the future gas situation in Europe, including development of other

XXVII.11

Working Party on Gas Problems, seventh session, 1961
Duration: - finished in 1961 - continuing

Authority: Working Party on Gas Problems, seventh session, 1961
Duration: - finished in 1961 - continuing

XXVII.12
(1967 CR: XXVII.10)

The use of gas in the chemical industry

In 1968 a report on the use of gas in the chemical industry for the manufacture of ammonia, acetylene and methanol was being prepared. This report, after examination by the Working Party on the Preferential Uses of Gas, will be published in 1969.

Authority: Committee on Gas, eleventh session, 1965
Duration: 1967-1969

XXVII.14
(1967 CR: XXVII.21)

Use of natural gas in electric power stations

In 1968 this problem was under consideration by the Working Party on the Preferential Uses of Gas. The secretariat of the ECE is collecting information on the subject for a consolidated report.

Authority: Committee on Gas
Duration: 1967-1969

XXVII.15
(1967 CR: XXVII.9)

Hydro-electric resources in Europe and their utilization

The Group of Experts for the Study of Hydro-electric Resources in Europe and their Utilization has prepared several studies related to its field. The following studies, which contain information obtained in European countries and the United States of America, are of special interest for industrial development: the role of water recycling through pumping on a daily or weekly cycle in hydro-electric plants and multiple-purpose schemes; possible methodologies for the assessment of exploitable hydro-electric potential and relevant problems; possibilities of increasing the utilization of hydro-electric potential in existing or future storage installations; methods to increase the effectiveness and productivity of multiple-purpose hydro-electric schemes; and prospects for the development of hydro-electric plants and their incorporation in future large energy supply systems.

Authority: Committee on Electric Power
Duration: Continuing

XXVIII.27
(1967 CR: XXVII.5)

Electricity and heat supply for large industrial complexes

This study reviews the energy requirements of large industrial complexes, the different methods used for their energy supply, and the different levels of planning for their energy supply. It also discusses the different levels of planning for their energy supply, and the different levels of planning for their energy supply.

Authority: Committee on Electric Power

Duration: 1967

XXVIII.27 (3)

Electricity and heat supply for large industrial complexes

A symposium on this subject was held in Bucharest from 20 to 27 May 1968 at the invitation of the Romanian Government. It was attended by 300 experts representing 23 countries and seven international organizations. Sixty-nine reports were submitted as well as a general report on each of the three categories of problems listed below. The European countries were also invited to submit expert reports under these three categories: the extent and characteristics of demand for heat and electricity of large industrial complexes; various ideas for solving the problem of supplying large industrial complexes with heat and electric energy; and over-all planning, financing and tariffs.

The report on the symposium was issued in 1968 (CEP/EP/44).

Authority: Committee on Electric Power

Duration: 20-27 May 1968 (meeting held)

Source of funds: IEL budget (the Government of Romania provided conference facilities)

XXVIII.28 (3)
(1967 CR: XXVII.5)

Long-term planning of energy supply

This study describes the different methods used in European countries for the long-term planning of energy supply and discusses the conclusions that emerge from a comparison of these methods. It is a comparative study of methods used for long-term planning of energy supply, analyzing information supplied by European countries in reply to questionnaires.

Authority: IEL research unit (CEP), 1967

Duration: 1966-1967

XXVII.29 ECE
(1967 CR: XXVII.4)

Accuracy achieved in projecting energy requirements

This study compares forecasts of energy requirements with the actual recorded consumption. The reasons for errors are discussed and means are suggested for avoiding discrepancies. The report containing this study was issued in 1968 under the reference number ENERGY/Working Paper No.4.

Authority: ECE resolution 12 (XIX), 1964

Duration: 1968

XXVIII.30 ECE

Survey of the natural gas market in Europe

The purpose of this study is to ascertain the existing and potential markets for natural gas, taking into account the energy market in Europe and the possibilities of covering these markets on the basis of natural gas resources available for European countries. In 1968 the detailed outline of the study was elaborated and issued as GAS/Working Paper No.204. The study consists of three parts: general conditions of natural gas use; consumption structures; and the effect of a new supply of gas and of advances in transport and storage on the consumption structure and on future consumption.

Authority: Committee on Gas, thirteenth session, 1967

Duration: 2 years; 1968-1969

XXVIII.31 ECE

Legal protection of international gas pipelines

This study compares the existing national legislation with the international legislation on the legal protection of international gas pipelines. The first set of basic principles to be recommended to Governments was elaborated by the group of rapporteurs and is now being considered by the countries. After the comments of the various Governments have been received, the document will be examined at the plenary session of the Committee on Gas in January 1969. The first report on this subject was published in 1967 (ST/ECE/GAS/21).

Authority: Committee on Gas, eleventh session, 1965

Duration: 2 years; 1968-1969

XXVIII.32 ECE

Transfer of electric power across European frontiers

This study is to deal with the prospects for future development of the transfer of electric power across European frontiers. The Ad Hoc Group of Experts on Economic Management of Large Power Systems has been charged to prepare a document containing an analysis of the actual situation and a discussion of the prospects for future development and of the technical problems involved.

- XXVIII.32 ECE Authority: Committee on Electric Power, twenty-seventh session, 1967
Duration: 1968-1969
(cont'd)
- XXVIII.33 ECE Economic effects of incorporating nuclear power stations in electric energy production

The purpose of this study is to investigate the effects of incorporating nuclear power in the production of electric energy on the selection of investments for production equipment and on the development of transmission systems. The Ad Hoc Group of Experts on Economic Management of Large Power Systems has been charged to study the four following problems: the problems of optimization of the size of nuclear power stations in systems of various European countries; the effects on the operation of large nuclear units on the electric power situation in interconnected national systems; the influence of the incorporation of nuclear power stations on the development of facilities specially designed to produce peak power; and reserve capacity problems raised by the incorporation of nuclear power stations into interconnected systems.

At its session in October 1968 the Ad Hoc Group of Experts recommended to the Electric Power Committee to organize a symposium on the whole range of problems raised by the incorporation of nuclear power stations in large electric systems.

Authority: Committee on Electric Power, twenty-seventh session, 1967
Duration: 1968
- XXVIII.34 ECE Use of gas for heating large housing developments

This study is an extension of an earlier study carried out on the use of gas for space-heating purposes. It contains information concerning experience gained in this field in European countries and in the United States, and draws general conclusions emerging from the analysis. The report on this subject was issued in 1968 (ST/ECE/EN/8 and ST/ECE/HOU/31).

Authority: Committee on Gas
Duration: 1967-1969

1968
1968

XXV111.35

101

Gasification of the use of gas in the chemical industry

At the invitation of the Spanish Government, a Symposium was held in Madrid from 7 to 9 October 1968 on the use of gas in the chemical industry. The Symposium covered two main topics: the economy of the uses of gaseous (natural and refinery gases) by the chemical industry; and the economic and technical problems concerning the bulk supplies of natural gas to the chemical industry.

A report on these subjects will be issued early in 1969.

Authority: Committee on Gas

Duration: 7-9 October 1968

XXV111.36

101

Utilization of electric power for large-scale production of crops and livestock

Within the scope of the activity of the Working Party for the Study of Rural Electrification rapporteurs have been charged with a number of studies on phytotrons, phytocyclones and phytoboxes measuring equipment and plant growth chambers (this study was issued in 1968); electricity in horticulture; and the technical and economic effectiveness of the use of electric energy in the production and rearing of livestock on an industrial basis.

The last two studies are to be issued in 1969. These studies mainly contain information concerning the relevant experiences in European countries and in the United States.

Authority: Committee on Electric Power

Duration: Continuing

XXV111.37

101

Air Pollution by Coking Plants

(For description see chapter XXVII.10)

XXV111.38

101

Annual Bulletin of Coal Statistics for Europe

(For description see chapter I.B.9)

XXV111.39

101

The coal situation in Europe and its prospects

(For description see chapter I.A.14)

XXV111.40

101

Concentration Indices in the European Coal Industry

(For description see chapter XXVII.1-)

XXVIII.41	ECE	<u>Consumption of electricity in Europe: a preliminary economic study</u> (for description see chapter I.C.1)
XXVIII.42	ECE	<u>The Electric Power Situation in Europe and its Prospects</u> (for description see chapter I.A.12)
XXVIII.43	ECE	<u>Electric Energy Statistics for Europe</u> (for description see chapter I.C.10)
XXVIII.44	ECE	<u>Statistics on conditions of hydraulicity in Europe</u> (for description see chapter I.C.11)
XXVIII.45	ECE	<u>Evaluation of natural gas reserves</u> (for description see chapter I.C.9)
XXVIII.46	ECE	<u>New means for the bulk transport of coal</u> (for description see chapter I.C.4)
XXVIII.47	ECE	<u>Quarterly Bulletin of Coal Statistics for Europe</u> (for description see chapter I.C.13)
XXVIII.48	ECE	<u>Selected Problems on the Preparation of Coals for Coking</u> (for description see chapter XXVII.16)
XXVIII.49	ECE	<u>Survey of the Recent Energy Situation in Europe</u> (for description see chapter I.A.12)
XXVIII.50	ECE	<u>Symposium on Hydraulic Transport of Coal Underground and at the Surface</u> (for description see chapter XXVII.11)

XXVIII.51

EE

Symposium on the Methods of Working Thick Coal seams,
Rocharest, 5 to 9 September 1966, Vol. I and II
(For description see chapter XXVII.15)

XXVIII.52

ESA

Symposium on the Development and Utilization of Oil Shale Resources

The Union of Soviet Socialist Republics acted as host country to this Symposium, which was convened in Tallinn, Estonia, from 26 August to 9 September 1968. The Symposium was the first opportunity for an international exchange of ideas and experience on the progress made since 1950 in the utilization of oil shale. One of the main themes was how to put modern techniques into wider use, particularly for the benefit of developing countries. The Symposium provided participants with up-to-date information on progress achieved, and with the potentialities and limitations in the utilization of oil shales, especially in areas lacking energy resources or facing high energy costs.

In addition to participants from developed countries, the United Nations sponsored 35 participants from developing countries.

Authority: Council resolution 1205 (XLII)

Duration: Date of completion - 1968

Estimated cost: 1968 - 8 man-months (Professional)
4 man-months (Regional adviser or
interregional adviser)

XXVIII.53

ESA

Interregional Seminar on Small-scale Power

The purpose of this Seminar, to be held in 1969, is to assemble responsible representatives from a number of developing countries to demonstrate to them first, the importance of small-scale electrification, and second, the means of achieving it.

Authority: Council resolution 1113 (XI)

Duration: 1968-1969

Estimated cost: 1968 - 3 man-months (Professional)
3 man-months (Consultant)

XXVIII.54

ESA

Fourth International Conference on the Application of Atomic Energy

This Conference is scheduled to be held in 1969 in accordance with General Assembly resolution 2309 (XXII). Although the agenda for this Conference has not yet been drawn up, it will be necessary to prepare several papers on topics including the application of nuclear energy to the exploitation of petroleum, natural gas and oil shale resources, and the role of nuclear power in developing countries with varying degrees of development in electric power.

Authority: General Assembly resolution 2309 (XXII)

Duration: 1968-1969

Estimated cost: 1968 - 2 man-months (Professional)
2 man-months (Consultant)

XXVIII.55

ESA

Interregional Seminar on Geothermal Energy

The purpose of this Seminar, to be held in 1969, will be to make available to representatives of developing countries the results of UNDP geothermal projects and to review the advances in the techniques of geothermal exploration and development. Since the United Nations Conference on New Sources of Energy held in Rome in 1961, technical assistance has been provided to a dozen countries, and UNDP/SF geothermal projects are being executed in Chile, El Salvador and Turkey. Deep drilling is expected to commence in El Salvador and Turkey in the near future and the results, duly compiled and analysed, should be ready for the Seminar.

Authority: Council resolution 1205 (XIII)

Duration: 1968-1969

Estimated cost: 1968 - 3 man-months (Professional)
3 man-months (Consultant)

XXVIII.56

ESA

Study on petroleum refining in developing countries

This study provides information and guidance to administrators responsible for petroleum affairs in developing countries. It reviews and analyses both technical and economic developments in petroleum refining, with emphasis on those developments which affect petroleum refining in developing countries, and evaluates the impact of petroleum refineries on the economic development of selected countries.

XXVIII.56
(cont'd)

ESA

Authority: Council resolutions 70 (XXVIII) and 58 (XXIX)

Duration: completion date = 1968

Estimated cost: 1968 = 8 man-months (Professional)
8 man-months (Consultant)

XXVIII.57

ESA

Study on natural gas utilization for power in developing countries

This study will review developments in natural gas production, transport and utilization in developing countries, with particular reference to power generation. The wastage of natural gas by flaring in many developing countries is a serious problem, and this study will analyse the technical and economic considerations for using natural gas for power generation either independently or in association with the development of the industries.

Authority: Council resolution 70 (XXVIII), 758 (XXIX) and 1113 (XL)

Duration: 1968-1969

Estimated cost: 1968 = 1 man-month (Professional)
3 man-months (Consultant)

XXVIII.58

ESA

Study on natural gas transport techniques

This study reviews important advances in techniques of transporting natural gas - pipelines, methane tankers, liquefaction and regasification - a subject of particular concern to developing countries and to countries with supplies of natural gas which, in view of the limited domestic demand, can find adequate markets only in developed areas. A similar study for the Government of Algeria was prepared under a UNDP/SF project for the marketing of natural gas in Europe. Other developing countries are in need of similar assistance.

Authority: Council resolutions 70 (XXVIII), 758 (XXIX) and 1113 (XL)

Duration: 1968

Estimated cost: 1968 = 3 man-months (Professional)
7 man-months (Consultant)

- XXVIII.59 ESA Studies in management of water resources
Study on Water Resources Administration
 This study is expected to be submitted for publication in 1969 and will serve as a comprehensive background paper for the Interregional Seminar on the Development of Natural Resources.
Authority: Council resolution 756 (XXIX)
Duration: 1968-1969
Estimated cost: 1968 - 2 man-months (Professional)
- XXVIII.60 ESA Study on development of natural gas resources
 This study is expected to be submitted for publication in 1969 and will serve as a comprehensive background paper for the Interregional Seminar on the Development of Natural Gas Resources.
Authority: Council resolution 756 (XXIX)
Duration: 1968-1969
Estimated cost: 1968 - 2 man-months (Professional)
- XXVIII.61 ESA Study on the management of electricity enterprises
 (For description see chapter XXI.D.2)
- XXVIII.62 ESA Interregional Seminar on Petroleum Administration in Developing Countries
 (For description see chapter XXI.B.4)
- XXVIII.63 IAEA Nuclear power production - Panel on Plutonium Utilization
 The Panel, convened in Vienna in September 1968, considered the usefulness of plutonium as an alternate to enriched uranium in thermal reactor systems. Use of plutonium is technically feasible, but entails some cost penalties in fuel cycle charges; therefore the desirability of using it now as opposed to stockpiling for future fast breeder reactor use depends on the value ultimately established in an international market.
Duration: September 1968

XXVII.64

IAEA

Nuclear power production - Panel on Sol-gel Processes

The Panel, convened in Vienna in May 1968, reviewed progress in sol-gel processes, which are among the more promising (technically and economically) ways of producing nuclear fuel materials of carefully controlled particles, shape, size and composition.

Duration: May 1968

XXVII.65

IAEA

Nuclear power production - Symposium on Advanced and High Temperature Gas-cooled Reactors

The Symposium, held in Jülich, Federal Republic of Germany, in October 1968, dealt with progress in the design and operation of high-temperature reactors that are cooled with gas. These reactors, which have progressed beyond the experimental stage, show promise for simplifying the power-generation cycle by coupling with direct cycle gas turbines (or, ultimately, with MHD generators) and for decreasing the quantity of waste heat. These reactors perhaps would be applicable as sources of high-temperature process heat.

Duration: October 1968

XXVIII.66

IAEA

Nuclear power production - Panel on Thorium Utilization

The Panel, convened in Vienna in June 1968, examined the extent to which economic incentives exist to develop thorium fuel systems in competition with advanced uranium fuel systems and fast breeder systems. It also discussed technical problems that still have to be overcome with the thorium fuel system.

Duration: June 1968

XXVIII.67

IAEA

Nuclear power production - Panel on Small and Medium-sized Power Reactors

The Panel, convened in Vienna in June 1968, examined the possibilities of reducing the cost and improving the design of small and medium-sized reactors. These questions are of special interest to developing countries which may not be able to use larger nuclear plants, that is, plants of a capacity greater than 300 MW(e).

Duration: 24-28 June 1968

XXVII.68

IAEA

Nuclear power production - International Working Group on Fast Reactors

IAEA has established an International Working Group on Fast Reactors (Standing Group), which has its headquarters in Vienna, to promote the fuller exchange of information and cooperation in development relating to fast reactors, to arrange for regular international meetings on this subject, to identify areas where which further work is necessary, and to advise the Agency about its future activities. It has also established a Working Group on the Engineering Aspects of Irradiation of Pressure Vessel Steels under Irradiation. This Group met in Stockholm in October 1968. The inspection rules for determined embrittlement were a main agenda item.

Duration: March 1968 (Vienna); October 1968 (Stockholm)

XXVIII.69

IAEA

Nuclear power production - Symposium on the Economics of Nuclear Fuels

The Symposium, held in Gottwaldov, Czechoslovakia, in May 1968, reviewed costs of fabrication and reprocessing, prospects of plutonium recycling, problems of nuclear fuel management and other economic problems of the nuclear fuel cycle that are of special interest to power planners.

Duration: 27-31 May 1968

XXVIII.70

IAEA

Nuclear power production - Directory of Nuclear Reactors

In January 1968 IAEA published the seventh volume of the Directory of Nuclear Reactors; this covers 49 new power reactors in twelve countries.

Duration: January 1968 - continuing

XXVIII.71

IAEA

Nuclear power production - IAEA/ENEA Liaison Group on Magnetohydrodynamic Electrical Power Generation

In the field of advanced power generation, the joint IAEA/ENEA Liaison Group (Standing Group) on Magnetohydrodynamic Electrical Power Generation, set up in 1967, met twice during 1968 to review the progress made in this system.

The activities of the Liaison Group also supported an IAEA Symposium on Magnetohydrodynamics (Warsaw, July 1968), and the information presented at this Symposium is being evaluated by the Liaison Group in the form of a status report.

Duration: 1968

- XXVIII.73 IAEA Symposium on Nuclear Desalination
IAEA convened the Symposium on Nuclear Desalination in Madrid in November 1968 to review recent experience and developments in nuclear desalination.
Duration: 18-27 November 1968
- XXVIII.74 IAEA Review of the new nuclear-powered energy centre concept
During 1968 IAEA also provided an observer to the Oak Ridge National Laboratory (ORNL), United States, to attend a meeting dealing with the technical and economic review of the new nuclear-powered energy centre concept. This concept is a logical extension of the use of nuclear energy for electricity production and desalination of water. Several energy-intensive processes and industries that can benefit from the production of very cheap energy - such as power, desalination, fertilizer, food processing, metallurgical and manufacturing plants - are often clustered around a nuclear reactor.
Duration: 1968
- XXVIII.74 IAEA Study of the technical and economic feasibility of energy centres for the Middle East
In mid-1968 the United States Government began a one-year study of the technical and economic feasibility of energy centres for the Middle East and IAEA was invited to co-operate. IAEA sent a staff member to attend the first two-day liaison meeting of the study team held at Oak Ridge, United States, in October 1968.
IAEA arranged for a fact-finding team from the United States, to visit Jordan, Lebanon and the United Arab Republic. IAEA staff members accompanied this team on the Egyptian portion of the visit (November 1968).
Duration: Mid-1968
- XXVIII.75 IAEA Nuclear desalination for industrial purposes - publications
IAEA published in 1968 The Guide to the Costing of Water from Nuclear Desalination Plants, Technical Reports Series No.80.
Duration: 1968

WFOC The following field projects were developed during the period:

			Cost - US\$	Start Year	End Year	Cost US\$
XXVIII.76	Syria	<u>Natural gas development</u> (40-513)	1,000,000	1967	1968	1,000,000
XXVIII.77	Turkey	<u>conducting agglomeration and sintering pilot plant trials</u> (67-245)	1,000,000	1967	1968	1,000,000

XXVIII.78 WFP Syria - Installation of generators and construction of high tension transmission lines

WFP is providing food assistance to workers, a considerable number of whom are semi-skilled manual labourers, engaged in the installation of ten transformers and three generators and in the construction of 560 kilometres of transmission lines. WFP will provide food rations as part-payment of wages in kind for 250 days per year to 710 workers and their family members.

Duration: 5 years; became operational February 1967

Estimated cost: \$435,100

XXVIII.79 WFP Afghanistan - Increasing productivity of coal mines
 (For description see chapter XXVII.31)

XXVIII.80 WFP Turkey - Lignite mines development programme
 (For description see chapter XXVII.33)

XXVIII.81 WMO Regional: Kenya, Sudan, Uganda, United Arab Republic, United Republic of Tanzania - Hydrometeorological survey of the catchments of Lakes Victoria, Kioga and Albert

The objectives of the project are the collection and analysis of the hydrometeorological data of the catchments of lakes Victoria, Kioga and Albert in order to study the water balance of the Upper Nile as a basis for planning water conservation and development and to provide the ground work for inter-governmental co-operation in the regulation and use of the Nile. The project has a direct bearing on the economic development of the five countries, particularly as regards schemes for irrigation, hydro-electric generation and transportation.

Authority: WMO

XXVII.81
(cont'd)

WMO

Duration: 5 years; 1966-1971

Estimated cost and

source of funds: \$1,937,900 UNDP/SF allocation
\$2,236,000 Gov't counterpart contribution
\$4,173,900 Total

XXVIII.82

WMO

Colombian meteorological and hydrological service

The aim of the project is the creation of a Colombian meteorological and hydrological service, establishment of an extensive network of meteorological and hydrological stations and the training of nationals in this work. The data collected from the network that will be established under the project will provide the basic material for the evaluation of water potential and for the planning of projects in agriculture, hydro-electric development, water supply and transport.

Authority: WMO; Governing Council of UNDP

Duration: 5 years; 1967-1972

Estimated cost and

source of funds: \$1,208,400 UNDP/SF allocation
\$4,585,000 Gov't counterpart contribution
\$5,793,400 Total

XXVIII.83

WMO

Regional: Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama - expansion and improvement of hydro-meteorological and hydrological services in the Central American Isthmus

The lack of basic data on the water resources of the Central American Isthmus constituted an extremely important obstacle to the development of investment projects in such fields as electric power, irrigation and water supplies for home consumption and for industrial purposes. The purpose of this project is to establish technical and administrative facilities for the collection and processing of hydro-meteorological and hydrological data in the six countries.

Authority: WMO; Governing Council of UNDP

Duration: 5 years; 1966-1971

Estimated cost and

source of funds: \$2,715,000 UNDP/SF allocation
\$3,257,000 Gov't counterpart contribution
\$6,172,000 Total

Tanzania - Hides and skins demonstration project

This project involves the establishment of a demonstration centre in Dar es Salaam and a sub-station in Morogoro. The centre will include a tanning plant, a laboratory, a tannery, a demonstration processing plant, a unit for utilization of animal by-products, a control room, a lecture room and library. Each sub-station will include a demonstration unit for the training in improved tanning and grading techniques both for hides and skins, a buying centre and a buying centre with marketing service. The demonstration programme in surveying all sectors of the industry and rendering technical assistance has marked the opening 4 months of project operations.

Duration: Continuing; completion date 1971

Estimated cost and

source of funds: \$659,600 UNDP/SF allocation
\$973,000 Gov't contribution

Nigeria - Hides and skins demonstration and training project, northern region (NIR-11)

This project aimed at the improvement of raw hides and skins, semi-tanned hides and skins for export and at the development of the tanning and leather manufacture in Nigeria. A centre and two sub-stations have been set up. The centre in Zaria comprises a laboratory, lecture room, library and office accommodation; the two sub-stations in Maiduguri and Sokoto give technical assistance on the processing of hides and skins, on village tanning and on marketing problems related to the export trade. The two sub-stations are furnished with selected tanning machinery and laboratory equipment.

The expert dealing with a marketing survey of the project has completed his studies on the economics of various tanning and pre-tanning methods. The report includes a feasibility study for the establishment of a commercial tannery in the northern region, with a daily intake of 200 to 300 hides for wet treatment, with finishing in Europe.

A second phase project has been requested by the Government for implementation in 1969.

Duration: 1964-1968

Estimated cost and

source of funds: \$461,500 UNDP/SF allocation
\$452,000 Gov't contribution

CHAPTER XXIX

MISCELLANEOUS INDUSTRIES

XXIX.1

ECA

Miscellaneous Industries

The following publications were issued under the above heading:

Central Africa - "Bags and bagging materials in the Central African subregion"

- "Etude sur la situation actuelle des industries graphiques en Afrique du Centre"

Duration: 1968

XXIX.2

(1967 CR: XXIX.F.1)

ECE

Economic aspects of automation

A second meeting was held in January 1968, and a revised draft of the study will be considered at a third meeting.

Authority: ECE resolution 13 (XX)

Duration: 1966-1969

XXIX.3

IAEA

Nuclear Techniques in Water Pollution Investigations

A Study Group on Nuclear Techniques in Water Pollution Investigations, held in Budapest from 3 to 6 December 1968, discussed the application of these techniques to rivers, seas and lakes. The Meeting was attended by 45 participants from seventeen countries and two international organizations.

Authority: IAEA Programme

Duration: 3-6 December 1968

Estimated cost: \$8,500

The following 12 projects were developed during 1966

			Pr - gramme	Experts man	Cost \$
XXIX.1	Algeria	<u>Feasibility of modernizing a match factory (47-125)</u>	SIS	1/3	6,000
XXIX.2	Indonesia	<u>Design, production quality control and marketing of straw hats (54-57)</u>	TA	1/6	12,000
XXIX.3	Israel	<u>Training in the fields of graphic and industrial designs (243-57)</u>	TA	2/4 (2/6 fellows)	12,400
XXIX.4	Israel	<u>Fellowships in diamond cutting (243-57)</u>	TA	1/3 (fellows)	2,500
XXIX.5	Laos	<u>Match factory production methods (68-336)</u>	SIS	1/3	6,200
XXIX.6	Mauritius	<u>Survey of industries using sugar-cane bagasse as principal raw material (67-230)</u>	SIS	consultant firm	30,000
XXIX.10	Mongolia	<u>Production of packaging material (27-67)</u>	TA	1/3	5,500
XXIX.11	Singapore	<u>Modernization and expansion of printing establishments (68-338)</u>	SIS	1/6	11,000
XXIX.12	Singapore	<u>Control on industrial effluents and trade waste discharges (67-130)</u>	SIS	1/6	15,000

CHAPTER XXX

INDUSTRIAL RESEARCH

A. Scientific and technological developments, including their application and adaptation

XXX.A.1

ECA

Papers submitted to the Conference on Industry and Finance

The following working papers prepared by the secretariat of ECA were submitted to the Conference on Industry and Finance held in Addis Ababa from 25 to 27 March 1968:

- "A scheme for the creation of subregional industrial promotion centres in Africa" (IND/IF.2/WP/2)
- "Report on the follow-up action taken by the Economic Commission for Africa since the Conference on Industrialists and Financiers held in January 1967" (IND/IF.2/WP/3)
- "Industrial growth in Africa: current situation and prospects" (IND/IF.2/WP/4)
- "Progress made in the establishment of administrative machinery for subregional co-operation in 1967" (E/CN.14/IND/IA/II.5)

XXX.A.2

ECA

Study on optimum technology for industrial development in Africa

ECA has under examination the subject of optimum technology for industrial development in Africa. Since the quality and quantity of the input into industry in the developed and developing countries vary greatly, the maximization or optimum use of the resources of a particular country becomes the appropriate technology for a particular process or operation.

This study will be supported by a series of industry profiles giving known or adapted processes which ECA believes are appropriate or optimal for Africa. Based on the Indian experience with small-scale sugar manufacture, the first of the optimum technology series, "Manufacture of Crystal Sugar in form of sugar cane", has been prepared.

Duration: 1968 - continuing

XXX.A.3

ECAFE

UNESCO/ECAFE Ministerial Conference on the Application of Science and Technology to the Development of Asia

This project is closely related to the work of the Advisory Committee on the Application of Science and Technology to Development and to the activities of ECAFE in the field of science and technology. The Conference, held in New Delhi from 9 to 20 August 1968, aimed to emphasize the importance of science and technology to development, so that they will be taken into consideration at the highest governmental level in planning, education and science policy formulation.

The Conference reviewed the status of science and technology in Asia, and discussed such topics as:

- Prerequisites for, and promotion of, the application of science and technology to development
- Improvement of science education
- Science policy and its relation to economic planning
- Targets and priorities of scientific and technological development.

Authority: Preparatory UNESCO/ECAFE Meeting, Colombo, Ceylon, December 1966; ECAFE, twenty-first session, resolution 60 (XXI) ECAFE, twenty-fourth session. Committee on Industry and Natural Resources.

Duration: Preparatory Meeting December 1966. Conference 9-20 August 1968.

Estimated cost and

source of funds: The ECAFE secretariat's expense included only the cost of travel and participation of the officer for science and technology.

XXX.A.4

ECAFE

ECAFE/UNACAST Regional Group for Asia

The purpose of the meetings of the Asian Regional Group of the Advisory Committee on the Application of Science and Technology to Development with the ECAFE secretariat and the UN regional offices was to acquaint the Group and the Advisory Committee with the problems and projects in the fields of science and technology in the region. The fourth meeting held in August 1968 discussed institutions in the region for the application of science and technology to development and the World Plan of Action on Science and Technology.

The meetings of the Regional Group for Asia are related to the activities of ECAFE in the field of industrial development and in the development of natural resources, such as minerals, water and energy, and also in the fields of transport and communications, populations, housing etc.

XXX.A.4
(cont'd)

ECAFE The project covers the entire region and deals with the problems identified by the Advisory Committee, the solution of which will be of the greatest benefit to the developing countries of the region. The yearly meetings of the Group will be the vehicles for the exchange of views on the problems and aspirations of the countries of the region in science and technology, and convey these to the Advisory Committee for action and recommendations at the higher levels.

Authority: General Assembly resolutions; ECO/OC resolutions; Recommendations and reports of the Advisory Committee on the Application of Science and Technology to Development; ECAFE resolutions, specifically resolution 60 (XXI) of 29 March 1965.

Duration: 1965 - continuing

Estimated cost and source of funds: The servicing of the meetings is undertaken by the ECAFE secretariat. Travel expenses of participants are borne by their respective organizations.

XXX.A.5

ECE Meeting on Scientific and Technological Co-operation
A meeting of governmental experts qualified in the field of scientific and technological policy is being convened in Geneva to examine the possibilities of expanding and promoting scientific and technological co-operation in the ECE region under the auspices of ECE and to consider measures that might be taken to enable the ECE to discharge this task. Several case studies are being prepared on the following topics: problems of scientific and technical policy; establishment of statistical standards; dissemination of scientific and technological information; transfer of technology; organization of co-operative international research and technological forecasting.

Authority: ECE resolutions 13 (XXII), 14 (XXII) and 4 (XXIII)

Duration: Preparations for the Meeting, scheduled for 20-24 January 1969, were made in 1968.

XXX.A.6

ECE A note on the New Delhi session of the UNCTAD and the implications for international trade, of the changes in technology and the industrial structure (ECE/Trade/203, Add.2)

This note examines the decisions reached at the Second UNCTAD with special reference to those decisions directly relevant to the ECE, i.e. the resolution on the expansion of East/West trade and the draft resolution on the transfer of technology. The major part of the paper is devoted to an analysis of the changing importance of research intensive products in trade among industrially advanced countries, with an examination of related changes in international investment flows (e.g. those of multi-national companies) and technological gaps. The last section of the paper reviews some

XXV.A.
(1967 CR: XXV.A.2)

ICIA

possible implications for the trading prospects of developing countries of the technological tendencies, including those appearing in East-West trade analyzed in the second section.

Authority: ICI resolution I(XXIII)

Duration: Initiated in 1965 and presented to the Committee on the Development of Trade in October 1967.

XXV.A.

ICIA

Advisory services - technological research

The regional adviser on technological research has continued his activities in the countries of the region and has also maintained close contact with the Advisory Committee on the Application of Science and Technology to Development. The regional adviser also attended, and played an active part in, the third meeting of the Latin American Group of the Advisory Committee on the Application of Science and Technology to Development, held in Santiago, Chile, from 29 to 31 July 1968.

Duration: 1968

Estimated cost: 1968 - 12 man-months

XXX.A.
(1967 CR: XXIX.A.2)

ICIA

Transfer of technology

The work done on this subject consisted of the preparation of outlines for two projects and the conclusion of agreements with the various bodies that will participate in the execution. The first of these projects concerns the transfer of technology through enterprise-to-enterprise arrangements. It will be carried out through an agreement with the Inter-American Development Bank (IADB), and the Fiscal and Financial Branch of the Department of Economic and Social Affairs. The work will be carried out in Brazil, and will involve collaboration in a current world-scale project of IADB which also covers other countries and regions. The second project, which will also be carried out in collaboration with the Inter-American Development Bank, is of wide scope and concerns the building up of technology in certain sectors of industry, including local technological development, the problems of the transfer of technology, the absorption of new techniques, dissemination activities and alternative techniques. This project will be carried out partly in Brazil and partly in other countries in the region, and it will be of sectoral scope, that is to say, it will form the basis for an analysis concerning various sectors of industry. Both projects began in 1968, and the planned completion date is towards the end of 1969.

Authority: ICIA resolution 245 (XI)

Duration: 1968-1969

XXX.A.9

ECIA

Technical assistance to the Latin American iron and steel industry

Technical assistance to the Latin American iron and steel industry is provided under the ECIA Regular Programme. The assistance is provided to the industry through the Latin American Iron and Steel Institute (IASI) and the Latin American Iron and Steel Institute (IASI) is the main institution responsible for the implementation of the programme. The assistance is provided to the industry through the Latin American Iron and Steel Institute (IASI) and the Latin American Iron and Steel Institute (IASI) is the main institution responsible for the implementation of the programme. The assistance is provided to the industry through the Latin American Iron and Steel Institute (IASI) and the Latin American Iron and Steel Institute (IASI) is the main institution responsible for the implementation of the programme.

Duration: 1968-1970

Estimated cost: 1968-1970

XXX.A.10

ECIA

Technological research in the Latin American iron and steel industry

This project, which will take an estimated six months to complete, was begun in November 1968. In cooperation with OAS, a group consisting of the regional adviser on technical research, an expert from the Latin American Iron and Steel Institute and another expert provided by the OAS will visit iron and steel plants, laboratories and some of the main steel consumers in the region in order to examine the present situation regarding iron and steel research and to prepare a report with concrete recommendations regarding the possibility of increasing research activities in this industrial sector in the region.

Duration: Approximately 6 months; November 1968 - May 1969

Estimated cost: 1968-1969

XXX.A.11

UNESCO

Assistance to Member States in the planning of science policy and research

Assistance to Member States in the planning of science policy and research in 1968 is provided under the UNESCO Regular Programme, the Participating Programme and the UNDP/IDA component. It is intended for individual Member States but includes regional activities as well.

The assistance provided to individual Member States is aimed at contributing to national development and concentrates on the assessment and development of the national scientific and technical potential, and on research administration and science planning.

XXX. A.11
(cont'd)

UNESCO

	Con- sultant	Ex- pert	Mission	Fellow- ship	Cost US\$	
					Regular programme	UNDP/TA
Africa					30,000	108,000
Cameroon		1,2	x			
Congo (Brazzaville)			2			
Congo (Dem. Rep. of)	2	2	x			
Ethiopia	2					
Liberia			x			
Madagascar				x		
Mali			x	x		
Niger			2			
Nigeria		1,2	x			
Senegal	2	1,2	x			
Somalia	2					
Arab States					7,000	33,000
Algeria			2			
Iraq	2			x		
Jordan			1			
Lebanon	2		1,2			
Morocco			2			
Tunisia			1			
United Arab Republic				x		
Asia					15,000	26,000
Afghanistan			2			
Iran	2		2	x		
Malaysia			2			
Nepal			2	x		
The Americas					32,000	16,000
Argentina			x			
Bolivia			x			
Brazil				xx		
Chile	2					
Colombia	2		1			
Cuba				x		
Mexico				xx		
Uruguay			2			
Europe					8,000	
Estimated cost:					92,000	183,000

Key: 1 Indicates the assessment of scientific and technical potential.
2 Indicates the research administration and science planning.
x Indicates the investigation missions.

XXX.A.12

UNESCO

Case studies of technological development

In 1968 one study was completed on the key factor associated with the successful development of the technological and scientific structure in Japan. The study was carried out in cooperation with the National Commission for UNESCO.

Duration: 1968

Estimated cost and

source of funds: \$10,000 from UNESCO regular programme

XXX.A.13

UNESCO

Training of national scientific communities in developing countries and creation of a climate favourable to scientific and technological research

In 1968 UNESCO, in association with the International Union of the History and Philosophy of Science, undertook a study on the conditions for the emergence and development of national scientific communities. Two joint workshops were held at UNESCO headquarters in June and August 1968, respectively, and a third workshop will be held at Nairobi in January 1969 at the headquarters of the UNESCO Regional Centre of Science and Technology for Africa.

Authority: Advisory Committee on the Application of Science and Technology to Development, fifth session, 1966

Duration: 1968-1969

XXX.A.14

UNESCO

UNESCO Science Prize

This Prize is offered every two years for outstanding contributions to the technological development of developing member states. In 1968 it was awarded by an international jury to a scientist from the United Kingdom in recognition of his work on water desalination.

Estimated cost and

source of funds: \$5,000 from UNESCO regular programme

XXX.A.15

UNESCO

Conference on the Application of Science and Technology to the Development of Asia (CASTASIA)

This inter-governmental ministerial-level Conference was held in New Delhi from 9 to 21 August 1968. CASTASIA dealt with the following questions: the status of science and technology in Asia (present position, prospects, problems and priorities); prerequisites for, and promotion of, the application of science and technology to development; improvement of science education in Asian countries; and science policy and its relation to economic planning. CASTASIA adopted recommendations on the above subjects including those on priority areas for action in Asia. The final report on the Conference will be available in April 1969.

Duration: 9-21 August 1968

XXX.A.17

UNESCO

Integration of scientific and technological potential

At the request of the Advisory Committee on the Application of Science and Technology to Development, UNESCO prepared a report on the Problems of the Integration of Scientists and Technologists (Document STS/WS/6), 24 February 1968, that included qualitative and quantitative assessments of the problem and the measures to improve the situation. This report was submitted to the Advisory Committee on the Application of Science and Technology to Development at its ninth session (April 1968), which is being convened for later in 1968.

Duration: 1968

XXX.A.18

UNESCO

Integration of sectoral research policies within over-all national planning of science and technology

UNESCO in co-operation with WHO, provided assistance to CIOMS in the organization of a symposium on science policy and biomedical research held at UNESCO headquarters from 26 to 29 February 1968.

Duration: 1968

XXX.A.19

UNESCO

International glossary of science policy

In 1968 UNESCO continued to assemble basic documentation on the terminology of science policy. An initial series of terms concerning human and financial resources for science and technology has been compiled in connexion with the activities of UNESCO in the field of science statistics (Questionnaire on Statistics relating to the Experimental Research and Development Effort in European Member States (Document STS/A/681)) and in the field of technical assistance for the evaluation of national scientific and technological potential.

Duration: 1968 - continuing

XXX.A.20

UNESCO

Inventory of national scientific and technological potential

In 1968, UNESCO continued with the preparation of the inventory which will provide national specialists and UNESCO experts in science policy with a methodology on operations for the collection, processing and the use of data on scientific and technological potential with a view to formulating science policy at the national level. The inventory is to be published at the end of 1968 or the beginning of 1969.

Duration: 1968 - continuing

The project aims at strengthening the existing administrative and technical services of the Ministry of Agriculture and Animal Husbandry, and the development of the tanning, leather and animal by-product industry. The programme of work includes: improved tanning, improved drying, curing, grading and marketing of hides and skins, improved grading and marketing of processed hides and skins, improved tanning and processing of leather goods, improved utilization of animal by-products, especially for animal requirements for footwear, leather goods, and planning and promotion of quality marketing. A programme for hides and skins development is under way.

Duration: September 1968 to 1972

Estimated cost and

source of funds: \$942,000 UNDP SF allocation
\$157,000 Govt contribution (for 5 years)

Somalia - Training centre for hides, skins and leather development (SOM-11)

This project aims at strengthening the existing Rural Training Centre at Mogadiscio and the establishment of a sub-station in the north of the country. The programme of work for the Centre includes applied research, training and demonstration, planning and legislation with particular emphasis on reducing losses, promoting exports by meeting required quality standards, modernizing the marketing organization and development of the local tanning, leather and animal by-product utilization industry. The activities of the Centre include: improved tanning and curing of hides and skins, improved grading and marketing of hides and skins, tanning and technology of leather and pelts, utilization of leather for footwear and leather goods, and utilization of animal by-products.

The building programme was completed in September 1968 and the machinery will be installed shortly. Meanwhile, work is being carried out in the field and in private tanneries.

Duration: Continuing; completion date 1972

Estimated cost and

source of funds: \$731,000 UNDP SF allocation
\$125,000 Govt contribution (for 5 years)

XXX.A.23

UNESCO

Research meetings, seminars and training courses in industrial research

Regional training course on instrumentation, Republic of Korea.

Estimated cost: \$14,000

Regional meeting in co-operation with the Asian Electronics Union and ICAFE on promotion of electronic technology.

Estimated cost: \$14,300

Seminar on research and training in mining technology in Latin America, Montevideo, Uruguay.

Estimated cost: \$21,700

Training course on instrumentation as applied to the development of mineral resources, Buenos Aires, Argentina.

Estimated cost: \$20,500

Duration: 1968

Estimated cost and source of funds: \$70,500 from UNESCO regular programme

XXX.A.24

UNESCO

Selection at the national level of priority research programmes

In the Proceedings of the Yaoundé Symposium, UNESCO published in 1968 a methodological study on research programming in the developing countries based on the technique known as "pertinence pyramids" (support graphs). At government request UNESCO sent a mission to Algeria for the application of this method in the preparation of Algeria's science and technology plan.

Duration: 1968

XXX.A.25

UNESCO

Service for the exchange of information on national scientific organizations and national scientific potential

The activities included in this project are within the framework of the resolutions adopted by the General Conference since its eleventh session, concerning the analysis and the dissemination of information on national organizations for scientific planning and research and on the national scientific and technological potential of member states. These activities are carried out on a continuing basis.

Authority: UNESCO General Conference, eleventh session

Duration: 1968 - continuing

Estimated cost: 1968 - approx. \$20,000 from UNESCO regular programme

XXX.A.1

UNESCO

Survey of programmes of research and development in science and technology

UNESCO has begun to assemble information on the research and development programmes of twenty-two science and technology groups within the field of the universities and other scientific institutions in the region of Latin America. This information will be used in connection with the training of specialist and science-policy-makers with a grant-in-aidance for UNESCO fellowships and training under the 1964 programme of technical assistance in the field of science policy.

Duration: 1968 - continuing

XXX.A.27

UNESCO

Surveys of the scientific and technological potential of Member States

The following directories were either published by UNESCO in 1968 or are nearing completion:

Asia - Research Facilities in Science and Technology in Asia - Preliminary Survey, 201pp.

Africa - Survey of the Scientific and Technological Potential of the African Countries (to appear at the end of 1968 or the beginning of 1969).

Latin America - Country Lists of Scientific Institutions and Scientists in Latin America

The second edition of these directories has been in preparation since 1963. It will include some 30 volumes in all; 25 have already been issued, those on Central America and Panama appeared in 1968.

Regional - Regional Directories in the Scientific Field

The second volume in this Series, dealing with the geological sciences, appeared in 1968 (the first volume, dealing with the mathematical sciences, was published in 1966).

Duration: 1968 - continuing

XXX.A.28

UNESCO

Use of the cost-profit analysis technique in the evaluation of projects for the application of existing know-how

At the request of the Advisory Committee on the Application of Science and Technology to Development, UNESCO organized a meeting from 11 to 12 June 1968 to draft a report on this problem.

Duration: 11-12 June 1968

110- The following field projects were developed during 1968

			Pro- gramme	Experts m/m	Cost \$
XXX.A.19	Brazil	<u>Establishment of industrial research centre (67-232)</u>	SIS	1/1	3,000
XXX.A.20	Thailand	<u>Analysis and appraisal of applied scientific research (82-57)</u>	IA	1/12	17,650
XXX.A.21	Regional	<u>Technological research in industry (10-495)</u>	REG	1/12	17,300

XXX.A.22 UNITAR Transfer of technology from enterprise to enterprise

The purpose of the project, undertaken jointly with ESA, is to make a study analysing and evaluating the process by which industrial technology is transferred to developing countries from industrialized countries through enterprise-to-enterprise arrangements. The main forms of such arrangements are: services provided to a wholly or substantially owned affiliate by a parent enterprise overseas; the provision of managerial and other services independently of investment; and the licensing of industrial "know-how" with or without patents.

UNITAR has completed a methodology for the conduct of studies in the developing countries, which will be submitted to ECOSOC by the Secretary-General, in response to its resolution 1311 (XLIV) requesting preparation of the methodological study. ECOSOC is to be responsible for field studies in developing countries, and UNITAR will make a number of case studies of industrial enterprises in the developed countries which supply technology to developing countries. These case studies will ascertain such factors as the nature and channels of transfer, the contractual relationships and conditions of transfer in the context of the supplier's motivations, the cost of transfer as seen by the supplier, the control and influence exercised by the supplier and the part played by the supplying firms in providing access to technology and its effective utilization by the recipients.

Authority: ECOSOC resolution 1311 (XLIV)

Duration: 1968 - continuing

XXX.A.23 WMO/ Seminar on the Role of Meteorological Services in Economic
ECA Development in Africa

One of the purposes of this Seminar, held in Ibadan, Nigeria, from 27 to 28 September 1968, was to show how meteorology can be applied in industry, taking advantage of the new technologies which will result from the establishment of the World Weather Watch.

Authority: ECA (co-sponsored by WMO)

Duration: 27-28 September 1968

Cooperation in the field of research and development
institutions - continuing projects

- xxx.B.1 ECA Regional Institute for Fuel and Energy
- ECA is at present working on the design and functions of a regional institute for fuel and energy.
- Duration: 1968 - continuing
- xxx.B.2 ECA regional research centre - fuel and energy
- ECA is engaged in consultations on the establishment of a regional research centre specializing in all aspects of fuel and energy.
- Authority: ECA Work Programme, item 44
- Duration: 1968 - continuing
- xxx.B.3 ECA Regional institute for fuel and energy
- ECA is at present working on the design and functions of a regional institute for fuel and energy.
- Duration: 1968 - continuing
- xxx.B.4 ECAFE Coconut research and development regional institute in the ECAFE region
- The purpose of this project is to establish a regional coconut research institute to be used by the coconut producing countries of the region. The project will increase the productivity, diversify the products and promote the exports of the various products of the coconut industry in the region. It has important relations to ECAFE projects on industrial research, regional co-operation and trade promotion.
- The project will cover the major coconut producing countries of the ECAFE region, and the institute - when established - will deal with agricultural, industrial and market research on the coconut. Assistance is to be requested from the UNDP, FAO, UNIDO and USAID.
- At the request of the Philippine Government, the FAO, UNIDO and ECAFE secretariats sent their representatives to the Philippines to study the existing research facilities and to assist the Philippine Government in preparing applications for assistance. It is understood that the Philippine Government will submit a request on behalf of both the Philippine Coconut Research Institute, in the field of agricultural research on the coconut, and the National Institute of Science and Technology, in the field of technological or industrial research on the coconut.

- XXX.B.4
(cont.)
- ECAFF Authority: ECAFF resolution 7 (XXIII)
Duration: Initiated in June 1967 - continuing; completion depends on the aid-giving institutions
Estimated cost and source of funds: The only authorized budget for the project were the travel expenses and salaries of the representatives of FAO, UNIDO and ECAFF. There is no allocation by the UNDP or from the regular programmes of technical assistance at present
- XXX.B.5
FAO Brazil - Tropical Centre of Food Research and Technology, Campinas
(For description see chapter XX.14)
- XXX.B.6
FAO Ceylon - Pre-investment study on forest industries development (CEY-5)
(For description see chapter XXIV.17)
- XXX.B.7
FAO Chile - Institute of Food Science and Technology, Santiago (CHI-15)
(For description see chapter XX.23)
- XXX.B.8
FAO China - Food Processing Institute, Hainchiu (CHA-16)
(For description see chapter XX.27)
- XXX.B.9
FAO Colombia - Institute for Training and Research in Agricultural Marketing, Bogota (COL-14)
(For description see chapter XX.28)
- XXX.B.10
FAO Ghana - Food research and development unit (GHA-7)
(For description see chapter XX.35)
- XXX.B.11
FAO Ghana - Fishery research unit (GHA-8)
(For description see chapter XXI.15)
- XXX.B.12
FAO India - Central Sheep and Wool Research Institute, Raigarh (IND-32)
(For description see chapter XXII.7)

- XXX.B.13 FAO Malaysia - Food Technology Research Institute, Kuala Lumpur
(For description see chapter XX.70)
- XXX.B.14 FAO Mexico - Instituto de Investigaciones Cientificas y Tecnologicas, Universidad Nacional Autonoma de Mexico, Facultad de Agricultura, (IITA), Mexico City
(For description see chapter XX.71)
- XXX.B.15 FAO Pakistan - Development of the East Pakistan Forestry and Institute, Chittagong (PAK-3)
(For description see chapter XXIV.3)
- XXX.B.16 FAO Pakistan - National forestry research and training project (PAK-1)
(For description see chapter XXIV.32)
- XXX.B.17 FAO Peru - Peruvian Sea Institute (formerly Marine resources research Institute) (PER-2)
(For description see chapter XXI.29)
- XXX.B.18 FAO Saudi Arabia - Project on food quality control
(For description see chapter XX.71)
- XXX.B.19 FAO Senegal - Institute of food technology, Dakar (SEN-5)
(For description see chapter XX.74)
- XXX.B.20 FAO Sudan - Food processing research centre
(For description see chapter XX.75)
- XXX.B.21 FAO Sudan - Forestry research and education centre, Khartoum (SUD-3)
(For description see chapter XXIV.39)
- XXX.B.22 FAO Turkey - Research and training centres for the production, processing and marketing of fruit and vegetables (TUR-13)
(For description see chapter XX.78)



16. 7. 74

XXVI.1
(1968)

and level of employment in the leather and footwear industry; the conditions of employment; and related problems in the leather and footwear industry, with reference to countries in the course of industrialization.

Authority: Governing Body of the ILO

Duration: Initiated in 1968 (a meeting will be held in 1969)

Estimated cost and source of funds: \$185,773 from ILO regular budget

UNIDO The following field projects were developed during 1968

			Pro- <u>gramme</u>	Experts <u>n/a</u>	Cost <u>\$</u>
XXVI.13	Argentina	<u>Leather processing (111-57)</u>	TA	1/6	11,340
XXVI.14	Ethiopia	<u>Hides and skins purchasing and export organization for leather producing and processing industry (67-141)</u>	SIS	1/12	25,000
XXVI.15	India	<u>Dyeing and finishing of leather (37-57)</u>	TA	1/12	20,630
XXVI.16	India	<u>Investigations in the field of polymers as applied to the leather industry (37-57)</u>	TA	1/12	20,630
XXVI.17	India	<u>Footwear machinery and equipment (66-17)</u>	SIS	1/12	32,000
XXVI.18	India	<u>Development of chrome tanning processes for village tanneries (68-288)</u>	SIS	1/3	9,000
XXVI.19	Jamaica	<u>Leather industry improvement (8006-68)</u>	TA	1/12	23,100
XXVI.20	Jamaica	<u>Footwear production and quality (X80-427)</u>	F-in-1	1/11	16,030
XXVI.21	Malaysia	<u>Operation of leather tannery (19-66)</u>	TA	1/12	21,000
XXVI.22	Malaysia	<u>Improvement of leather products industries (19-66)</u>	TA	1/12	21,000
XXVI.23	Malaysia	<u>Improvement of leather products industries (19-66)</u>	TA	1/12	21,000
XXVI.24	Mongolia	<u>Improving technological processes for leather (27-67)</u>	TA	1/12	21,900
XXVI.25	Malaysia	<u>Leather tanning quality improvement (67-244)</u>	SIS	1/6	14,000

			<u>Pre-</u> <u>grant</u>	<u>Expert</u> <u>cost</u>	<u>Cost</u> <u>\$</u>
XXVI.26	Singapore	<u>Modernization and expansion of fancy leather product industries (68-330)</u>	11	11	11,000
XXVI.27	Spain	<u>Development of footwear industries (10-500)</u>	600	100	5,000
XXVI.28	Sudan	<u>Leather production technology and marketing (68-262)</u>	500	400	58,000

CAPITUL XXVII

MEETING AND INDUSTRIES BASED ON MINERAL RESOURCES

XXVII.1

ECA

Meeting on mining

ECA is making preparations for a meeting scheduled for 1969, on the constitutional basis, location, financing and operational programme for the establishment of multinational centres for specialized services in surveying and mapping.

Authority: Work Programme, item 44

Duration: 1968-1969

XXVII.2

(1967 CR: XXVI.2
(VI.3))

ECA

Mining industries

The following studies were undertaken on the above subject:

Africa - ECA is assembling and analysing documents for a comparative study of agreements for the exploration and prospecting of minerals, petroleum and natural gas.

Central Africa - "Industrie minière en Afrique Central"

North Africa - "Etude économique de possibilités pétrolières de l'Afrique du Nord: exploration et production"

"Phosphate mining in the North African subregion"

"Non-ferrous metal ores mining in the North African subregion, with annex on iron ore"

"Coal mining in the North African subregion: preliminary information"

Duration: 1968

XXVII.3

ECA

Seminar on changes in technology of mineral resources

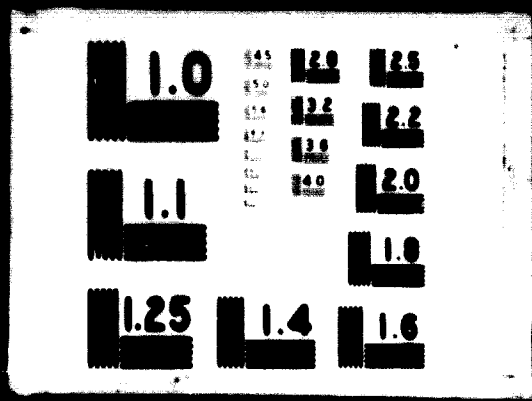
In accordance with the Work Programme for 1967-1968, ECA organized a seminar for senior officials of African Governments engaged in mineral resources development, to interest them in the impact of changes in technology in advanced countries on the demand for new or rare metals and minerals (OTC project 61-1967).

Duration: 1968

8 OF 10

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4 1 2 5



Activities to encourage the formulation of science policy and the organization of research in the scientific and technological fields

These activities are based on the resolutions adopted by the General Conference since its eleventh session, on scientific policy and the organization of research in Member States. They are financed under the UNESCO regular programme.

Authority: UNESCO General Conference resolutions, 11-15th sessions.

Duration: 1968 - continuing

Estimated cost: \$50,000 from UNESCO regular programme

XXX.1.25

UNESCO Activities to encourage the formulation of science policy and the organization of research in the scientific and technological fields

These activities are based on the resolutions adopted by the General Conference since its eleventh session, on scientific policy and the organization of research in Member States. They are financed under the UNESCO regular programme.

Authority: UNESCO General Conference resolutions, 11-15th sessions.

Duration: 1968 - continuing

Estimated cost: 1968 - \$50,000 from UNESCO regular programme

XXX.1.26

UNESCO Bilateral co-operation between scientific institutions

In 1968 UNESCO continued and completed the survey begun in 1965 at the request of the Advisory Committee on the Application of Science and Technology to Development on bilateral co-operation between scientific and technological institutions in the developed and developing countries. The findings of this survey have been set forth and discussed in a report published in 1968 in the Series "Science Policy Studies and Documents".

Duration: 1968

XXX.H.26

UNESCO Documentation on engineering laboratories

This UNESCO programme provides the intellectual background for UNDP projects in the field. Five studies on soil mechanics, hydraulics, material testing, thermodynamic, and electric machines have been completed. Three reports are in print.

Duration: Initiated 1966 - continuing

Estimated cost and

source of funds: \$20,000 from UNESCO regular programme

XXXI.A.10	Tunisi	<u>Study of the</u> <u>role of the</u> <u>State in</u>	
XXXI.A.11	United Republic of Tanzania	<u>Industrial</u> <u>development</u> <u>in</u>	
XXXI.A.12	The Maghreb Countries	<u>Study of industrial</u> <u>for the Maghreb</u>	
XXXI.A.13	Regional	<u>Regional industrial</u> <u>attached to the economy</u> <u>regional commission</u>	

B. Industrial property and legislation, including
patents and licences

XXXI.B.1	ECE	<u>Legal protection of international maritime lines</u> (For description see chapter IV, III.3)
XXXI.B.2	ESA/ UNIDO	<u>Co-operation in the experts' meeting to be organized by UNIDO</u> <u>on industrial patents for developing countries, in 1968</u> <u>Authority:</u> Fiscal and Financial Branch Project, World programme of UNIDO for 1968 (1967, I, para. 118) <u>Duration:</u> Proposed date of completion - 1968 <u>Estimated cost:</u> 1968 - 2 man-months (professional)
XXXI.B.3	ESA	<u>Interregional seminar on the role of government in the</u> <u>development of mineral resources</u> This seminar to be held in 1970, will deal with the role of geological surveys, of mining departments and mineral laboratories, and with the legislative problems of mining. It will consider customs and fiscal legislation, as well as investment legislation. Some preparatory work has already undertaken in 1968 and 1969. <u>Authority:</u> Council resolution of 21 July 1967 <u>Duration:</u> 1968-1970; completion date - 1970 <u>Estimated cost:</u>

Interregional Seminar on Petroleum Administration in Developing Countries

The Government of Trinidad and Tobago acted as host country to this seminar from 19 to 27 April 1968 in Port-of-Spain. Developing countries had been increasingly faced with administrative problems relating to such petroleum matters as concessions, conservation policies, tariffs, taxation and fiscal policy, and a need had thus arisen for United Nations assistance in providing government administrators with the background necessary for them to cope with such petroleum affairs. The seminar was designed to provide government officials with an intensive training course dealing with these administrative questions.

Thirty participants from developing countries attended the Seminar.

Authority: Council resolution 1205 (XLII) and General Assembly resolution 723 (VIII)

Duration: Date of completion - 1968

Estimated cost: 5 man-months (Professional)

XXXI.B.5

ESA

Transfer of technology at the enterprise level

(For description see chapter II.A.4)

XXXI.B.6

UNIDO

Information on laws and regulations affecting industry - Industrial Legislation Series

A series of studies is being undertaken in the developing countries on industrial legislation with special emphasis on industrial property protection and administration.

Authority: IDB, 1968 (10/B/20/Rev.1/Add.1, para.119)

Duration: Continuing

Estimated cost and

source of funds: \$3,500 from Consultant Funds
\$1,500 from UNIDO travel budget;
about 6 man-months of staff time

UNIDO

The following field projects were developed during 1968

XXXI.B.7

Nepal

Industrial Legislation (83-85)

Pro-
OFCEE

Experts
n/a

Cost
\$

TA

1/3

6,000

XXXI.B.8

Singapore

Legislation on fire safety standards (67-72)

SIS

1/6

15,000

C. Industrial information and documentation services

XXXI.C.1

ESA

Operational experience of water desalination plant

The Water Resources Section acts as the clearinghouse for the exchange of information in the broad field of desalination. This entails the preparation of studies, progress reports to the Council, field assistance, liaison with Governments, specialized agencies, manufacturers and research institutes. A report on the operational experience of desalination plants is being prepared on an annual basis from 1967 onwards. This involves the collection of up-to-date operational data based on questionnaires sent to authorities operating such plants.

Authority: Council resolution 1033A (XXXVII), 1069 (XXXIX) and 1114 (XI)

Duration: 1968-1969

Estimated cost: 1968 - 6 man-months (Professional)
8 man-months (Regional adviser or interregional adviser)

XXXI.C.2

UNESCO

Development of long-range plans in scientific and technical documentation - clearinghouses for key-word and descriptor lists, classification schedules, thesauri etc.

The clearinghouses compile, collect and disseminate information concerning key-word and descriptor lists, classification schedules, thesauri and glossaries. Two such clearinghouses have been established in 1966 and 1967, respectively, at: Bibliographic Systems Centre, Western Reserve University, Cleveland, Ohio 44106, United States; Centralny Instytut Informacji Naukowej i Technicznej i Ekonomicznej (CIINTE), ul. Niepodległości 188, Warsaw, Poland.

The first deals with material published in English, the second covers all languages other than English.

These clearinghouses were established following Recommendation No.1 of Working Party No.2 set up to implement UNESCO's long-range plan in Scientific and Technical Documentation.

The clearinghouses cover all fields of science and technology, including the social sciences. They are continuing projects.

Duration: 1966 - continuing

Estimated cost: \$12,500 (since inception for establishment and development)

development of long-range plans in scientific and technical
documentation - justification

A report for the series "Documentation and Information in Science",
has prepared the following two publications which should be
completed by the end of 1968 or early in 1969:

Worldwide to Technical Information and Documentation
Services (Guide mondial des centres de documentation et
d'information techniques)

Bibliography of Interlingual Scientific and Technical
Dictionaries (Bibliographie de Dictionnaires scientifiques
et techniques multilingues; Bibliografía de diccionarios
científicos y técnicos plurilingües) 5th edition.

The former is a companion volume to the World Guide to Science
Information and Documentation Services (Guide mondial des centres
de documentation et d'information scientifiques), published in
1965. In the two volumes, 357 centres from 65 countries and
territories are listed, giving details of the fields of science
and technology covered, holdings, services available and so on.

The fifth edition of the bibliography contains nearly 2,500
entries classified under 260 headings and referring to 74
languages. All entries refer to scientific and technical
dictionaries published since 1950.

Duration: 1968 - continuing

XXXI.2.4

UNESCO

Joint ICSU-UNESCO project on the communication of scientific
information and on the feasibility of a world science
information system

A Joint ICSU-UNESCO Central Committee to study the feasibility
of a world science information system, held its first meeting
in December 1967. Several working parties to study various
aspects of a world science information system and an advisory
panel, consisting of representatives of existing mechanized
documentation services were established. At its second session
the Committee defined the methods and the timetable for
preparing the study and for reviewing the orientation and
accomplishments of the working parties.

The information system will be world-wide, with emphasis on
accessibility of developing countries to the system. Initially
it will cover all fields of natural science and later on include
social sciences and technology.

It is hoped to have the study prepared during the next biennium.
An international conference may be held in 1971/1972.

Pending approval by the governing bodies of both organizations,
the funds available in 1968/1970 will be \$140,000 to \$200,000
(\$150,000 from UNESCO, \$30,000 to \$50,000 from ICSU).

XXXI.C.4
(cont'd)

UNIDO

Duration: 1967 - continuing

Estimated cost:

Source of funds: UNIDO Regular Budget
UNIDO Special Funds

XXXI.C.5

UNIDO

World Directory of Industrial Research and Development

World Directory of Industrial Research and Development, World Directory of Industrial Research and Development, published with Asia, Africa and Latin America, respectively, Volume 4, for Africa and the Arab States, will be issued in 1969 for a conference that will discuss the application of science and technology to the development of Africa. (The various volumes of the Directory will be brought up to date periodically.) The Directory contains a detailed account of all national bodies responsible for research policy-making at the level of a national and regional planning

Duration: 1968 - continuing

XXXI.C.6

UNIDO

Industrial information publications

The UNIDO Newsletter, which provides information on UNIDO policies, field activities, meetings and publications, was published in six issues in 1968. During the year its circulation tripled, with almost 10,000 copies of the last issue being printed. The UNIDO Newsletter, inaugurated in 1967, is published in English, French and Spanish. The Industrial Research and Development News, inaugurated in 1966, appeared three times in 1968, and preparations were made for quarterly publication in 1969. This magazine serves as a means of communication between industrial research institutes, with the primary aim of serving developing countries, and between UNIDO and persons interested in industrial development. Preparations were made to inaugurate a third publication, an industrial abstracts bulletin, in early 1969.

Authority: IDR, 1968 (10/R/20/Rev.1, para.129)

Duration: 1967 - continuing

Estimated cost: 13 man-months

XXXI.C.7

UNIDO

Industrial Inquiry Service

The Industrial Inquiry Service continued to answer inquiries on a wide range of industrial problems for individuals, companies, organizations and Governments. The Service not only calls on staff members but also enlists scientific, industrial and professional bodies as voluntary contributors. In the first

XXXI.C.8
(cont.)

UNO

nine months of 1968, a total of 195 inquiries on industrial problems in developing areas have been answered.

Authority: IDB, 1968 (ID/B/20/Rev.1, para.125)

Duration: Initiated in 1966 - continuing

Estimated cost: 8 man-months

XXXI.C.9

UNIDO

Seminar on industrial information

Discussions with Danish authorities have resulted in the agreement to hold a seminar on industrial information in Copenhagen in the spring of 1969. They have approved the annotated agenda which UNIDO submitted. Arrangements for the participation of 20 officials concerned with industrial information in developing countries were made in late 1968; ten senior industrial information officers from well established extension services in developed and developing countries will introduce the main agenda items and lead the discussion.

Authority: IDB, 1968 (ID/B/26, para.133)

Duration: Continuing

Estimated cost and source of funds: 2 staff man-months in 1968; seminar to be financed from a special \$50,000 contribution by the Danish Government

UNIDO

The following field project was developed during 1968

XXXI.C.9

Morocco

Organization of an industrial information service (ID-82)

Pro-
grams

REG

Experts
n/a

1/3

Cost
\$

5,700

D. Industrial management and industrial consulting and advisory services

XXXI.D.1

ESA

Administrative and managerial problems of public enterprises and other instruments of economic development

The draft study on organization and management of public enterprises, with special reference to their performance, now under preparation, will be reviewed by a working group in 1969. The study will be revised and submitted for publication in 1969.

XXXI.D.1
(cont'd)

ESA

The report of the members of the study group on the study programme in the area of management and administration, especially with respect to the marketing, financial and social aspects, warrants a preliminary study which, however, could only be undertaken if primary work on the subject of additional studies is completed.

Authority: Public Administration Division; General Assembly resolution 1074 (XV); A/62/109, para. 17; E/CN.4/1968/14; Council resolutions 40 (XIV) and 10 (XXXI).

Duration: continuing

Estimated cost: 1968 - 2 man-months (professional)
10 man-months (consultant)

XXXI.D.2

ESA

Study on the management of electricity enterprises

The study will review both the theoretical and practical aspects of management of electricity enterprises, including planning and implementation of power development programmes, tariff policies, accounting and co-ordination with all national organizations dealing with energy development. It will also be used as basic document for an interregional seminar, to be held probably in 1970, on the management of electricity enterprises.

Authority: Council resolution 1113 (X)

Duration: 1968-1969

Estimated cost: 1968 - 1 man-month (Professional)
4 man-months (consultant)

XXXI.D.3
(1967 CR: V.8.8)

ILO

Cyprus - Vocational training and management development centre, Nicosia

(For description see chapter VI.8.64)

XXXI.D.4

ILO

Ethiopia - Management and entrepreneurship training and advisory centre, Addis Ababa

(For description see chapter VI.1.5)

XXXI.D.5
(1967 CR: V.8.9)

ILO

Ghana - Management development and productivity institute

(For description see chapter VI.1.6)

XXXI.D.6
(1967 CR: V.8.10)

ILO

Guinea - National centre for management development and training

(For description see chapter VI.1.3)

- XXXI.D.8
(1967 CR: V.B.8) HLO Hungary - National Management Development Centre, Budapest
(For description see chapter VI.1.8)
- XXXI.D.9
(1967 CR: V.B.9) HLO India - National Institute for Training in Industrial Engineering
(For description see chapter VI.1.9)
- XXXI.D.10
(1967 CR: V.B.10) HLO India - Training and advisory services in tool, die and mould making for the plastics and other industries
(For description see chapter VI.1.10)
- XXXI.D.11
(1967 CR: V.B.11) HLO Iran - Management development and supervisory training, Teheran
(For description see chapter VI.1.11)
- XXXI.D.12
(1967 CR: V.B.12) HLO Iraq - Management Development and Supervisory Training Centre, Baghdad (Phase II)
(For description see chapter VI.1.12)
- XXXI.D.13
(1967 CR: V.B.13) HLO Jordan - Centre of Industrial Development, Management Development Department
(For description see chapter VI.1.13)
- XXXI.D.14
(1967 CR: V.B.14) HLO Kenya - Management Training and Advisory Centre
(For description see chapter VI.1.14)
- XXXI.D.15
(1967 CR: V.B.15) HLO Mexico - Servicio Nacional de Adiestramiento Rápido de la Mano de Obra en la Industria (ARMO)
(For description see chapter VI.1.15)
- XXXI.D.16
(1967 CR: V.B.16) HLO Pakistan - Management development and industrial training scheme
(For description see chapter VI.1.16)
- XXXI.D.17
(1967 CR: V.B.17) HLO Peru - Servicio Nacional de Aprendizaje y Trabajo Industrial (SENATI)
(For description see chapter VI.1.17)

- XXXI.D.14
(1967 CR: V.B.30) ILO [Tunisia - Management Development Centre](#)
(For description see chapter VI.1.14)
- XXXI.D.15
(1967 CR: V.B.30) ILO [Tunisia - Management Development and Productivity Centre](#)
(For description see chapter VI.1.15)
- XXXI.D.19
(1967 CR: V.B.21) ILO [Syria - Management Development and Productivity Centre, Damascus](#)
(For description see chapter VI.1.19)
- XXXI.D.20
ILO [Thailand - Management Consultancy Training, Bangkok](#)
(For description see chapter VI.1.20)
- XXXI.D.21
(1967 CR: V.B.24) ILO [Trinidad and Tobago - Management Development and Productivity Centre - Port of Spain](#)
(For description see chapter VI.1.21)
- XXXI.D.22
(1966 CR: V.3.41)
(1967 CR: V.B.25) ILO [Tunisia - National Productivity Institute](#)
(For description see chapter VI.1.22)
- XXXI.D.23
(1967 CR: V.H.6) ILO [Tunisia - National Institute for Training and Further Training](#)
(For description see chapter VI.1.23)
- XXXI.D.24
(1967 CR: V.B.26) ILO [Turkey - Establishment of the Management Development Centre](#)
(For description see chapter VI.1.24)
- XXXI.D.25
(1967 CR: V.B.33)
V.H.7) ILO [United Arab Republic - Productivity and vocational training project, Cairo](#)
(For description see chapter VI.1.25)
- XXXI.D.26
(1967 CR: V.H.6) ILO [United Arab Republic - Vocational Training Institute for Industry](#)
(For description see chapter VI.1.26)

- XXXI.D.27 ILO United Republic of Tanzania - National Institute for Productivity
(1967 CR: V.B.27)
(For description see chapter VI.1.18)
- XXXI.D.28 ILO Uruguay - Centro de Perfeccionamiento Técnico (ICI) of the Universidad del Trabajo del Uruguay (UTU)
(For description see chapter VI.B.118)
- XXXI.D.29 ILO Venezuela - Venezuelan Institute of Productivity
(1967 CR: V.B.27)
(For description see chapter VI.1.23)
- XXXI.D.30 UNIDO Model forms for financial planning of industrial enterprises
This study, to be completed in 1969, is intended to serve as a teaching aid in workshops on financial planning. The substance of the material being prepared includes: general introduction to basic concepts of financial analysis; tools and techniques of analysis in diagrammatic form; and exploratory comments on application of techniques.
In 1968 four technical papers were commissioned; draft reports were completed by December 1968. Publication is expected by mid-1969.
Authority: IDB, 1968 (ID/B/20/Rev.1, para.195, 196)
Duration: 1968-1969 - continuing
Estimated cost: 3 man-months
- XXXI.D.31 UNIDO Financial aspects of manufacturing enterprises in the public sector
This seminar regarding public sector enterprises, originally planned for 1968, is to be held in Rome early in 1969, with the co-operation of IRI (Italy). While the seminar is intended for the developing countries and will focus attention on their problems and their experiences with public enterprises, the experiences of the developed countries, particularly centrally planned economies, will also be examined.
Governments in developing countries, even those with substantial public sectors, often lack experience to cope with the financial problems of public enterprises. An exchange of relevant information and experience, therefore, would be of considerable help to them. This is particularly true of the financing as well as of the price and profit policies which have a direct bearing on the financing of public enterprises.

XXX.B.27

UNESCO

Education and technical cooperation

The following activities are being carried out:

- one expert in technical cooperation for Mauritania (3 months)
- one expert in technical cooperation for Mauritania (3 months)
- one expert in technical cooperation for Mauritania (3 months)
- one expert for planning and production of educational materials for the United Arab Republic (1 year-month)
- one expert for administration of research centres in the United Arab Republic (1 year-month)
- two experts for study of polytechnics in Venezuela and Panama (continuing, estimated cost \$30,000)

Duration: 1968

Estimated cost and

source of funds: \$32,700 from Participation Programme

XXX.B.28

UNESCO

Multidisciplinary research facilities in Asia

This programme was continued from 1967 when the survey of the research facilities in Asian countries was carried out. The findings of the survey were analysed and information on individual research institutions is being prepared for publication. The survey was completed by extending it to the Asia-Oceania region and covering Australia and New Zealand.

This survey is viewed as a long-term activity which will be revised and up-dated on a continuing basis.

Duration: 1967 - continuing

Estimated cost and

source of funds: \$3,000 from regular programme

XXX.B.29

UNESCO

Studies on national science policy

In the Series "Science Policy Studies and Documents", UNESCO published in 1968 three national studies dealing with the origin, development and present state of the organization of research and science policy in the Federal Republic of Germany, the United States and Yugoslavia. UNESCO is preparing similar studies in co-operation with the science-policy-making authorities of the following countries: Argentina, France, India, Israel, the Philippines, Romania, Sweden and the United Arab Republic; they will be published over the two-year period 1969-1970. The studies will provide national science policy-makers with a comparative basis for the elaboration of their own policies and will also constitute a background for the study of the role of science policy-making in the development of national science.

Duration: 1968 - continuing

XXXI.D.31
(cont'd)

UNIDO

Authority: IDB, 1968 (ID/B/20/Rev.1, para.128(a))

Duration: 1968-1969

Estimated cost: \$ 5,000; 6 man-months

XXXI.D.32

UNIDO

Advisory Service on the Supply of Industrial Equipment to Developing Countries

The Advisory Service has begun the implementation of the recommendations made at the Expert Group Meeting in New York in November 1967. In 1968 primary emphasis has been on building up comprehensive and selective lists of suppliers and their products so that the Service may begin operation early in 1969.

Authority: IDB, 1968 (ID/B/20/Rev.1, para.128(a))

Duration: Initiated in late 1967 - continuing

Estimated cost: 6 man-months

XXXI.D.33

UNIDO

Ghana Holding Corporation mission (SIS Ghana Project 5)

The purpose of the mission was to assist the Government of Ghana in formulating a request for a Special fund project regarding the operations of the Ghana Holding Corporation, which comprises about 25 state industrial enterprises.

Authority: Government request

Duration: May 1968

Estimated cost and source of funds: \$758 from SIS

XXXI.D.34

UNIDO

Indonesia - Industrial Consultation Workshop (Management Improvement Clinic)

The Clinic was conducted by a team of four outside consultants and a UNIDO staff member. About 40 top executives and government officials participated.

Authority: IDB, 1968 (ID/B/20/Rev.1/Add.1, para.146(a), 147 and 148)

Duration: 2 weeks; March 1968

Estimated cost: \$10,000

			Estimated months	Estimated cost \$
		The following field projects were developed during 1968:		
XXXI.D.37	Brazil	<u>Establishment and management of technical service unit (68-171)</u>	1	25,000
XXXI.D.38	China	<u>Corporate planning, technological improvement and training for managers of industrial enterprises (526-67)</u>	1	25,000
XXXI.D.39	China	<u>Solving management problems related to manufacturing process (10-599)</u>	1/6	17,800 (176 fellows)
XXXI.D.39	China	<u>Setting up consulting services for medium and large industries on low-cost technological improvements (67-104)</u>	3/5	15,000 1/6
XXXI.D.39	China	<u>Application of new productivity and management ideas (67-111)</u>	3/5	5/18 40,000
XXXI.D.40	Ghana	<u>Reorganization of the State Enterprises Secretariat (67-163)</u>	3/5	13/264 400,000
XXXI.D.41	India	<u>Training programme for marketing and export promotion of industrial goods (68-366)</u>	3/5	1/8 (20/80 fellows) 66,000
XXXI.D.42	Mali	<u>Advisory services to the Ministry for State-owned Enterprises (68-304)</u>	3/5	2/6 12,400
XXXI.D.43	Sudan	<u>Organization and administration of the public sector (67-60)</u>	3/5	2/4 10,000

E. Industrial and professional associations

XXXI.F.1 UNESCO Assistance in the creation of the World Federation of Engineering Organizations

The constituent plenary meeting took place in March 1968 at UNESCO. Sixty nations sent 120 representatives.

Duration: March 1968

Estimated cost and source of funds: \$15,000 from UNESCO regular programme.

XXXI.F.1

ICI

Industrial Co-operation

Development of co-operation between industrial enterprises in the form of joint ventures, joint production, joint marketing, joint research and development, joint production, joint marketing and other commercial agreements. The concept of industrial co-operation is defined as a form of co-operation between enterprises in the form of joint ventures, joint production, joint marketing and other commercial agreements. The promotion of industrial co-operation is one of the main objectives of the ICI programme. It is intended to assist enterprises in the form of joint ventures, joint production, joint marketing and other commercial agreements. The programme is intended to assist enterprises in the form of joint ventures, joint production, joint marketing and other commercial agreements.

Authority: ICI resolution 5 (XXIII)

Duration: initiated in 1966 - continuing

XXXI.F.2

FAO

Judon - Demonstration and marketing research on improved hides, skins and leather production (1966-67)

(For description see Chapter XXXI.F)

XXXI.F.3

(1967 CR: XXX.F.1)

ILO

Co-operative enterprise development centre

As a result both of the interest expressed by many governments, particularly those of countries in Africa, in the idea of these centres and of the growing recognition of the need to have broad-based technology centres rather than the traditional type of training institutions, a number of preliminary surveys were carried out in Cameroon, Gabon, Ivory Coast, Malagasy Republic, Peru and Tunisia. The special fund approved came to three Cameroon, the Ivory Coast and Tunisia for the establishment of such centres and they became operational before the end of 1968. (Tanzania has already submitted a draft report on GNP/F for such a centre.)

Duration: 1968

10/10/74

III

Study on the role of co-operatives in the industrialization of developing countries.

This study examines and describes the important role that co-operatives can play in the establishment and promotion of industry in urban and rural areas of developing countries. In industrialized countries, co-operatives have helped to set up well organized and efficient industrial units engaged in manufacturing and in the processing of agricultural and other products. Similar but less spectacular achievements have also been made in countries like Bulgaria, India, Japan and Poland by co-operative organizations, while many other developing countries are committed to assisting co-operatives to break into industry. The study will be a comparative evaluation of what has been achieved in both types of countries and the possibilities of further development.

Duration: 1968 - continuing

CHAPTER XXXII

OTHER ACTIVITIES RELATED TO INDUSTRIAL DEVELOPMENT

A. Social aspects of industrialization

XXII.A.1

ESA

Social aspects of industrialization and urbanization

Proposals for a comprehensive programme of work on the social aspects of industrialization have been formulated in consultation within the Department of Economic and Social Affairs, and with UNIDO, the specialized agencies, the regional economic commissions and UNESCO (E/CN.5/421). The programme is composed of three interrelated parts. The first concentrates on operational activities such as advisory services to Governments on social policy and planning aspects of industrialization. The second part analyses information on social pre-conditions, obstacles to and consequences of industrialization and their implications for social policy, while the third part will focus on issues in selected regions with given branches or types of industry. The aim of this programme is to lay down guidelines for developing countries in promoting industrialization and in obviating its undesirable effects.

Authority: Social Commission Work Programme, 1965-1967

Duration: Proposed date of completion - 1972

Estimated cost: 1968 - 8 man-months (Professional)

XXII.A.2

ILO

International Institute for Labour Studies

The International Institute for Labour Studies, established by ILO in 1960 as a centre for advanced studies in the social and labour field, further developed its activities in 1968. It focused on education, the promotion of labour studies and on international comparative research, and continued to act as the world secretariat for the International Industrial Relations Association.

Research activities in 1968 included a meeting on research methods for national studies on workers' participation in management. In addition, the Institute is currently engaged, inter alia, in international comparative research projects on strategic factors in industrial relations systems (inter-industry) and management and industrial relations (a prospective study).

Duration: Continuing

1967-68
 1967-68

Regional and country projects in the field of social security, initiated in 1967

		no.	source of funds
Algeria	social security administration	1	UNDP/TA
Algeria	social security legislation	1	UNDP/TA
Algeria			
Algeria	social security administration	1	UNDP/TA
Algeria	social security administration (Oranville)	1	UNDP/TA
Algeria	social security (actuarial)	1	UNDP/TA
Algeria	social security administration	1	UNDP/TA
Iran	social security administration	6	in-in
Iran	social security bookkeeping	4	in-in
Iraq	Social security statistics	6	UNDP/TA
Jordan	Social security legislation	3	UNDP
Libya	Social security (actuarial)	6	UNDP/TA
Malta	Social security organization of medical care	1	UNDP
Rwanda	Social security legislation	12	UNDP/TA
Senegal	Social security administration	6	UNDP/TA
Sudan	Social security administration	12	UNDP/TA
Togo	Social security	12	UNDP/TA

XXIII.A.4
 (1967 CR:II.C.11)

UNDP

Other training of staff for labour administrations
 (For description see chapter VI.J.5)

XXIII.A.5
 (1967 CR: XXIII.A.1)

UNESCO/
 ESA/UNIDU

Study on social services in industrial undertaking

The study has been completed and incorporated in the paper entitled "Some social aspects of industrialization in selected countries of the Middle East" published in the 1968 issue of the ECOSOC document entitled Studies on Selected Development Problems in Various Countries in the Middle East.

Authority: General Assembly resolution 2035 (XX); ECOSOC resolution 1139 (XCI); IDB resolution 4 (II) and 6 (II)

Duration: Published in 1968

Estimated cost and

source of funds: \$3,600 from UNESCO regular budget

1981/82
EIP: XXXII.A.1 E.A.111

Health and safety measures concerning work and working conditions

The study, "Health and safety measures concerning work and working conditions in the tobacco industry" published by the ILO, is a study on the health and safety measures in the tobacco industry in the Netherlands.

Activity: Health and safety measures concerning work and working conditions in the tobacco industry in the Netherlands
Duration: 1968-1969

Duration: 1968-1969

Estimated cost and

source of funds: \$5,000 provided by the Netherlands Government

ii. Health and safety measures concerning work and working conditions

XXXII.B.1 FAO FAO regular programme activities
(For description see chapter XXI.1)

XXXII.B.2 ILO Guide to safety and health in forestry work
An illustrated guide to safety and health in forestry work has been issued by the ILO following the recommendation of the joint committee of the FAO, ILO, and WHO on forest working technique and training of forest workers.
Duration: 1968

XXXII.B.3 ILO Sixth session of the Joint ILO/WHO Committee on Occupational Health
The purpose of the meeting was to study permissible limits for toxic substances in the working environment and criteria for their assessment. (It is the practice for ILO and WHO to alternate in making arrangements for the meeting of this Joint Committee.) The sixth session was arranged by WHO, and ILO invited six international experts and one adviser to it.
Duration: 1 week; 1968
Estimated cost and
source of funds: \$5,700 from ILO regular budget

0001.004

ILO

Social security

An article entitled "Some aspects of income redistribution through social security in four Western European countries" was published in the International Labour Review, Vol. 97, No.2, February 1968. A report on "Social security in Asia: trends and problems" was prepared for the sixth Asian Regional Conference held in Tokyo from 7 to 17 September 1968. This report pays special attention to social security and economic development in the region. A study on "Income security in the light of structural changes" was prepared for the Second European Regional Conference held in Geneva from 7 to 14 December 1968. A study on "The role of social security in social and economic development" is presently being prepared and expected to be completed in 1969.

A joint ILO/IACSS round table on regional economic integration and social security was organized in Mexico City from 25 to 30 November 1968.

Duration: 1968

XXXII.B.5
(1967 CR: XXXII.D.8)

ILO

Fellowships in occupational safety and health during 1968

		<u>Duration (months)</u>	<u>Source of funds</u>	
Burma	Occupational health	12	UNDP/TA	Continuing from 1967
Cambodia	Industrial safety and hygiene	3½	ILO	Initiated in 1967
India	Mines inspection	6	UNDP/TA	Initiated in 1967
Korea (Rep. of)	Planning and development of occupational safety and health institute	6	UNDP/TA	Completed in 1968
Korea (Rep. of)	Occupational safety	6	ILO	Initiated in 1967
Kuwait	Factory inspection	6	Trust Fund	Initiated in 1967
Malaysia	Occupational health	8	UNDP/TA	Initiated in 1967
Nigeria	Industrial hygiene	6	UNDP/TA	initiated in 1967
Peru	Safety in mines	3	ILO	Initiated in 1967
Romania	Occupational safety in chemical industry	3	UNDP/TA	Initiated in 1967
Romania	Occupational safety	3	UNDP/TA	Initiated in 1967
Syria	Industrial accidents	6	UNDP/TA	Completed in 1968
Thailand	Industrial health	4	ILO	Initiated in 1967
Thailand	Occupational health	1	ILO	Initiated in 1967

XXXII.B.5
(cont'd)

		<u>Priority</u>	<u>Year</u>	
Philippines	Occupational health	4	1968	Initiated in 1968
Polisia	Factory and other inspection service	4	1968	Initiated in 1968
Turkey	Organization of safety and health institutes	4	UNDP/TA	Initiated in 1968
United Arab Republic	Occupational health	6	UNDP/TA	Initiated in 1968
United Arab Republic	Occupational health	6	UNDP/TA	Initiated in 1968

XXXII.B.6

ILO

Americas - Regional project in occupational safety and health

A regional expert is assisting ODECA in the preparation of a Central American Occupational Safety and Health Institute (CEMOCAP) designed to train the technical personnel in the field of occupational safety and health and to provide the necessary facilities for implementing the occupational safety and health programmes of the Central American countries.

Duration: 1968

Source of funds: ILO regular budget and UNDP/TA

XXXII.B.7

ILO

(1967 CR: XXXII.D.4)

Asia regional project - Occupational safety and health

In addition to the occupational health adviser, a regional adviser in occupational safety completed a six-month mission in 1968. He visited Cambodia, Malaysia, Republic of Viet-Nam, Indonesia, Thailand and Pakistan.

Duration: Continuing

XXXII.B.8

ILO

Burma - Occupational safety

Following the request of the Government, an expert in occupational safety carried out a six-month mission in 1968.

Duration: 6 months; 1968

**Estimated cost and
source of funds:** \$12,000 from UNDP/TA

xxxii.B.10 ILO
(1967 CR: xxxii.D.9)

India - Further development of the labor institutes

Three expert visits to the country have been provided in 1968; they visited the central and regional labor institutes in the fields of industrial psychology, industrial engineering and ventilating engineering.

Duration: 1968

Estimated cost and

source of funds: \$30,000 from UNDP/TA

xxxii.B.11 ILO
(1967 CR: xxxii.D.9)

Korea - Industrial hygiene and safety

A twelve-month project, earmarked for 1967, was actually begun in 1968. It concerns advice on industrial hygiene, including teaching, laboratory make-up and industrial hygiene survey. Following an additional request of the Government, a twelve-month mission on occupational safety was added in September 1968.

Duration: 24 months

Estimated cost and

source of funds: \$48,000 from UNDP/TA and UNKRA/Resid

xxxii.B.11 ILO
(1967 CR: xxxii.D.11)

Middle East regional project - occupational safety and health

The regional adviser in occupational health completed his mission on 30 June 1968. The project continued during 1968 by a six-month mission of a regional adviser in occupational safety.

Duration: 12 months

Estimated cost and

source of funds: \$24,000 from UNDP/TA

xxxii.B.12 ILO

Nigeria - Occupational health

An expert on occupational health was sent to Nigeria to make a survey and evaluate the prevailing occupational health problems in the country and to advise on the preparation of a programme of development of occupational health services and medical inspection of factories.

Duration: 6 months; 1968

Estimated cost and

source of funds: \$12,000 from ILO regular budget

XXX.B.30

UNESCO

India - Naval Construction Training and Research Centre, Yambli, Cochin

It is anticipated that a total of twenty students will enrol every year in different specialities of naval construction from this Centre.

It is intended that the Centre provides also advisory and information services to shipowners and to the ship-building industry in general.

A towing canal will be constructed for testing models of new ships.

Operations of the Centre started in September 1967 and will last three years.

Duration: 1967-1970

Estimated cost and

source of funds: \$703,600 UNDP/SF allocation

\$914,590 Gov't counterpart contribution

XXX.B.31

UNESCO

India - Power Engineering Research Organization, Bhopal and Bangalore

This Organization undertakes research in the field of electrical power supply and the development of equipment.

Duration: 8 years; 1961-1969

Estimated cost and

source of funds: \$2,447,600 UNDP/SF allocation

\$2,612,000 Gov't contribution

\$5,059,600 Total

XXX.B.32

UNESCO

India - Central Scientific Instruments Organization (CSIO), New Delhi

The purpose of this project is to assist the CSIO in the design, development, standardization, testing and quality control of electrical, electronic, mechanical and optical instruments.

Duration: 7½ years; 1962-1969

Estimated cost and

source of funds: \$1,066,300 UNDP/SF allocation

\$4,307,000 Gov't contribution

\$5,373,300 Total

00011.B.13 ILO

Uruguay - Occupational Safety and Health Institute

The Institute will provide occupational safety and health services to workers in various activities. The Institute will be responsible for the development of occupational safety and health research, training, and service. The Institute will also be responsible for the development of occupational safety and health legislation and the provision of occupational safety and health services to workers in various activities. The Institute will be responsible for the development of occupational safety and health services to workers in various activities.

Duration: 4 years; 1968-1971Estimated cost andsource of funds: \$ 41,000 UNDP allocation

\$ 18,100 Gov't counterpart contribution

0711.B.14 ILO

United Arab Republic - Occupational Safety and Health Institute, Helipolis

The purpose of this project is to assist the Government in the establishment and initial operation of an Occupational Safety and Health Institute designed to train managerial, supervisory, medical, technical and other personnel and to provide laboratory and other facilities for promoting the country's occupational safety and health programme in keeping with the national policy of furthering social and economic development.

The Institute will be composed of a number of sections, which, through training, research and service, will deal with the medical, physiological, physical, chemical and engineering problems that impede the improvement of working conditions and the working capacity of persons in various occupations. The sections will be assisted by an industrial hygiene laboratory, other laboratories, and various services for the design of personal protective equipment and audio-visual aids, the testing and maintenance of apparatus and instrumentation and the conduct of demonstration projects in out-station areas.

Duration: 4 years; 1968-1971Estimated cost andsource of funds: \$817,700 UNDP/IDA allocation

\$7,631,113 Gov't counterpart contribution

xxx11.B.15 ILO

Venezuela - Occupational Safety

At the request of the Government, an expert in occupational safety was sent to Venezuela on a six-month mission which terminated in September 1968. The expert made a general survey of occupational safety services, reviewed existing safety legislation and advised the Ministry of Labour on the organization and administration of the factory inspection services.

Duration: 6 months; 1968Estimated cost andsource of funds: \$1,000 UNDP/IDA

XXXII.B.17 ILO
(1967 CR: XXXII.D.6)

Manual on health in Agriculture

XXXII.B.17 ILO
(1967 CR: XXXII.D.7)

Occupational health and safety in manufacturing

XXXII.B.18 WHO

Research activities - Health and safety problems concerning work and working conditions

The following research activities were carried out in 1968:

(1967 CR: XXXII.D.13)

- Respiratory diseases among textile workers.

Estimated cost: \$3,000

(1967 CR: XXXII.D.13)

- Effect of certain occupational exposures to vibration, especially in timber workers.

Estimated cost: \$3,000

(1967 CR: XXXII.D.18)

- Functional changes in health and disease under conditions of work in heat stress in Israel and Nigeria.

Estimated cost: \$10,000

(1967 CR: XXXII.D.25)

- Studies on the physical performance capacity of altitude populations have been completed in Ethiopia. Similar studies are now being organized in Nepal.

Estimated cost: \$10,000

- Financial support for the International Occupational Safety and Health Information Centre, ILO.

Estimated cost: \$4,000

Authority: WHO, Director-General's Programme

Duration: 1968

Estimated cost and

source of funds: \$30,000 from WHO regular budget

XXXII.B.19 WHO

National Seminar on Urban Health Administration, Manila

Amongst others, a consultant in occupational health participated in the Seminar.

Authority: WHO, Director-General's programme

Duration: 4-12 November 1968

Estimated cost and

source of funds: 4 weeks - consultant fees and travel from Regular Funds

XXXII.B.20

WHO

Training course on Occupational Health in Agriculture and Associated Industries, Dundee

The purpose of this project was to instruct post-graduate medical men, mainly from developing countries, on occupational health problems in agriculture and associated industries (e.g. pesticides industry). The fact was emphasized that if maximum productivity is to be achieved, due attention must be paid both to general and occupational health and hygiene during the further development and modernization of agriculture.

Duration: 1 October - 8 November 1968

Estimated cost and

source of funds: \$26,700 from WHO Regular Funds

XXXII.B.21

WHO/ILO

International Seminar on Occupational Health in Developing Countries, Lagos

The purpose of the Seminar was to discuss the occupational health problems of developing countries, especially African countries, and to stimulate interest in the aspect of preventive medicine. The Seminar was organized by the National Industrial Safety Council and the Permanent Commission and International Association on Occupational Health in co-operation with the federal ministries of health and labour and the University of Lagos with the active participation of WHO and ILO. WHO assisted towards the organizational costs and the attendance of participants.

Duration: 1-6 April 1968

Estimated cost and

source of funds: \$600 from Regular Funds

XXXII.B.22

WHO

(1967 CR: XXXII.D.16)

Pilot health centres for seafarers

Authority: WHO, Director-General's programme

Estimated cost and

source of funds: 1968 - 6 weeks - consultant fees and travel expenses from Regular Funds

XXXII.B.23

WHO

(1967 CR: XXXII.D.20)

Bulgaria - Central Institute of Public Health, Sofia

The purpose of the project is to assist in establishing a Central Institute of Public Health based on regrouping a number of formerly Independent specialized institutions. The existing Institute of Occupational Health and Department of Industrial Health and Occupational Diseases will be among those which will be regrouped and reorganized.

WHO will be the participating and executing agency. The Ministry of Public Health and Social Welfare, Sofia, will be the co-operating governmental agency.

Duration: 4 years; 1968 - continuing

Estimated cost and

source of funds: \$1,272,400 Special Fund Allocation
\$7,504,200 Gov't counterpart contribution

XXXII.B.24

WHO

Air - Occupational and industrial health advisory service project

The purpose of this project is to investigate further the nature and extent of occupational health and hygiene problems and to develop further measures for health promotion and for the protection of the workers. A plan of operation has been signed.

Duration: 1968-1969

Estimated cost and

source of funds: 1968 - 6 man-months (consultant); 2 six-month fellowships, \$30,000 Gov't counterpart contribution

XXXII.B.25

WHO/ILO

(1967 CR: XXXII.D.17)

Sixth session of the Committee on Occupational Health

The purpose of this meeting, held in Geneva from 4 to 10 June 1968, was to discuss modern concepts on permissible limits for occupationally encountered toxic substances (the establishing of occupational permissible limits is an important way of ensuring satisfactory work conditions, both in developed and developing countries), to obtain certain agreement between the major differing national philosophies and to prepare a list of substances together with their internationally recommended safe concentration zones.

Duration: 4-10 June 1968

Estimated cost and

source of funds: \$12,930 from WHO Regular Funds

XXXII.B.26

WHO

Scientific Group on the Optimal Level of Physical Performance Capacity for Adults, Geneva

The purpose of this project - carried out with the co-operation of ICSU/IRP - was to establish the desirable levels of physical performance capacity for healthy adults and the training methods by which this level can be attained and maintained, to prevent diseases due to both hypo- and hyperactivity and to enable man to perform his professional work with the highest efficiency.

Duration: 22-28 October 1968

Estimated cost and

source of funds: \$10,000 from WHO Regular Funds

XXXII.B.27

WHO

Meeting to review revised 1956 WHO document Guiding Principles in the Medical Examination of Applicants for Motor Vehicle Driving Permits

The purpose of this meeting, held in Geneva from 8-13 January 1968, was to prepare, in the light of modern medical knowledge and driving requirements, an up-dated and authoritative document for motor vehicle licensing authorities and their medical advisers in both developed and developing countries.

XXXI.B.27
(Cont'd)

WHO

Agreement on a study of the health effects of noise in the industrial environment. The study will be carried out in a number of industrial plants in the United States. The report will be published in the near future.

Duration: 1-15 January 1968

Estimated cost:

Source of funds: WHO, from WHO regular budget

XXXII.B.28

WHO

Model law for the official control of pesticides

Discussions have been held among the FAO and WHO with a view to producing a model law which, if adopted, will eventually include important aspects of the total problem related to the health and safety of workers. To date it has only been possible to prepare a draft relating to the registration for the sale and marketing of pesticides.

Authority: WHO, Director-General's programme; ILO; FAO

Duration: 27-29 May 1968

XXXII.B.29

WHO

Fellowships in occupational health awarded during 1968

		<u>Duration</u> <u>(months)</u>	<u>Source of</u> <u>funds</u>
Brazil	Industrial hygiene	4	UNDP/WHO
Ceylon	Industrial hygiene	9	WHO
Ceylon	Industrial hygiene	9	WHO
China	Industrial health	2	WHO
China	Occupational health	12	WHO
Colombia	Radiological health	12	WHO
Czechoslovakia	Work physiology	2	WHO
Ecuador	Industrial hygiene	9	WHO
Finland	Radiation protection	1	WHO
Finland	Prevention of home accidents	1	WHO
Greece	Occupational health	6	WHO
Italy	Prevention of road accidents	1	WHO
Japan	Environmental health - noise control	2	WHO
Korea	Industrial hygiene	1	WHO
(Rep. of)			
Korea	Industrial and occupational health	2	WHO
(Rep. of)			
Philippines	Ergonomics course	6 weeks	WHO (Interregional)
Poland	Occupational health	1	WHO
Poland	Radiation protection	1	WHO
Poland	Occupational health	2	WHO
Yugoslavia	Occupational health - nursing	4	UNDP/FAO
Yugoslavia	Safety measures in industry	1	UNDP/WHO
Yugoslavia	Occupational health - vibration	1	WHO

11/2/68

44

Consultants on occupational health and safety 1968

The following list itemizes the use of consultants for various occupational health purposes. (The use of consultants for various occupational health meetings has not been included in this list.)

	<u>Duration</u>	<u>Source of funds</u>
- Preparation of manual on ergonomics for developing countries	3 weeks	WHO
- Collation of results obtained in outer space research that can be utilized for research in occupational health and other areas of interest to WHO	1 month	WHO
- Preparation of studies on the health effects of industrial and climatic stress	1 week	WHO
- Formulation of recommendations concerning practical anthropological methods for industrial purposes	2 weeks	WHO
- Port health in Ceylon	2 months	WHO
- Industrial and occupational health in Lebanon	2 months	WHO
- The effect of "flatted factories" on the relations between workers and management and other repercussions on the health and well-being of workers in Singapore	1 month	WHO
- Advisory services on control and prevention of road traffic accidents in Tunisia	2 months	WHO
- WHO-assisted survey on toxic hazards of insecticides in the United Arab Republic	2 months	WHO

XXXII.B.31

WHO/ILO

Uganda - Occupational health survey

A joint ILO/WHO expert visited Kenya, Uganda and the United Republic of Tanzania, to make a preliminary survey as to the possibility of establishing an East African Occupational Health Institute. The eventual establishment of the Institute would strengthen occupational health programmes in the above-mentioned countries.

Duration: 4 December 1967 - 16 February 1968

Source of funds: Consultant fees, travel etc. paid by ILO and WHO Regular Funds

Technical training activities

XXXII.C.1

ECA

Technical training activities

In co-operation with the Government of the Gambia, a group of 10 nominated technical experts, 7 from the Gambia, 2 from the ECA/ECA/Netherlands mission and 1 from the Government of Kenya, were sent to the Gambia at the request of the respective Government.

In Ghana, one mission member prepared a comprehensive report and made recommendations on the restoration of housing policy to be included as part of the National Development Plan. Another mission member undertook work on the planning of operations in the Ghana Housing Corporation and made concrete recommendations on production of houses in series and on reduction in cost in detailed designs.

In Kenya, a combined ECA/Netherlands mission undertook work on building research, standardization and transmission of technical knowledge. A proposal was made to establish the nucleus of a building centre in Kenya by bringing together existing facilities.

Duration: 1968

XXXII.C.2

ECA

Third subregional training course in aided self-help and co-operative housing

In accordance with Project 110 of the Programme of Work and Priorities for 1967-1968, the third subregional ECA training course in aided self-help and co-operative housing was carried out in September and October 1968.

The training course, held in Monrovia, Liberia, was attended by participants from the following countries in the West African sub-region: Dahomey, Ghana, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo and Upper Volta. The course covered a period of six weeks - two of these in the lecture room and four in practical application on the building site.

Collaboration was secured from ILO, WHO and USAID. It is intended to carry out similar training courses in Central and North Africa during 1969-1970.

Duration: 6 weeks; September - October 1968

Source of funds: UNDP/FA funds

117.0.3 ECA

Training course for African building contractors in the East African subregion

In accordance with Project 114 of the Programme of Work and Priorities 1967-1968, ECA carried out a training course for African building contractors in the East African subregion. This course was carried out on a country-by-country basis in Ethiopia, Kenya, Uganda and Zambia and was attended by 92 participants. The objective of this type of course are to encourage entrepreneurship and to improve the cohesion and working ability of African building contractors.

Six working papers were prepared. Lectures were provided by ILO, WHO and by ECA staff and specially recruited lecturers. It is intended to continue this type of course in the West African subregion in 1969 and in the Central African subregion in 1970.

Duration: 1968

Source of funds: UNDP/TA

XXII.0.4 ECA

Working group of experts from the East African subregion

In accordance with Project 113 of the Programme of Work and Priorities 1967-1968 of ECA, a working group of experts from the East African subregion met at Addis Ababa in April 1968 to discuss the problem of house-building costs. The meeting was financed from UNDP/TA funds, and was attended by eighteen experts from nine East African countries. Effective collaboration was given by ILO, WHO and UNCHBP. In addition, a consultant was provided by Rouse Intrum, Rotterdam, the Netherlands. The work of this group was aimed at ensuring better uses of building materials and modular construction, adjustment of technical standards towards reduction of costs and elimination of waste in administrative arrangements for organization and control.

ILO prepared an information paper on wage rates for labour in the building industry in some countries of East and Central Africa.

If UNDP/TA funds are available, it is intended to extend this work to the North African subregion in 1969 and to the West African subregion in 1970.

Duration: April 1968

000.0.5 ECA

Regional meeting on housing finance

During 1968 negotiations were successfully completed with the German Foundation for Developing Countries for a meeting concerning different aspects of housing finance to be held in Addis Ababa, on a regional basis, in January 1969. The meeting is sponsored jointly by ECA and the German Foundation.

XXXII.C.6

WHO

Regional meeting on air quality indicators
A regional meeting on air quality indicators was held in Geneva, Switzerland, from 1968 to 1970. The meeting was organized by WHO and the Swiss Federal Office for the Environment. The meeting was held in Geneva, Switzerland, from 1968 to 1970. The meeting was organized by WHO and the Swiss Federal Office for the Environment. The meeting was held in Geneva, Switzerland, from 1968 to 1970. The meeting was organized by WHO and the Swiss Federal Office for the Environment.

XXXII.C.7

WHO

Regional meeting on air quality indicators
A working group on air quality indicators was established in 1968 for a regional meeting on air quality indicators in Geneva, Switzerland, from 1968 to 1970. This project was aimed at the preparation of a draft of a basic manual for the use of air quality indicators in government ministries and construction agencies.

XXXII.C.7

WHO

National Seminar on Urban Health Administration, Manila
(For description see chapter XXXII.C.10)

XXXII.C.8

WHO

Air pollution factors
A working group on atmospheric pollution and atmospheric chemistry is investigating meteorological aspects of air pollution concentration, distribution, forecasting and control. Their findings will be useful in industrial location policies.

XXXII.C.9

WHO

Urban climatology
A study is being made of the "urban effect" in climate as it relates to urban planning and development. A selected bibliography is being prepared and a symposium on building climatology was held in Brussels in October 1968.

Other programmes

FAO Industry Co-operative Programme

The co-operative effort between FAO and major multinational firms is being made with a view to the expansion of industries in the developing countries, and the co-operation with Governments, to remove the obstacles to the fulfilment of this objective. Acceleration of capital investment and active industrial participation in the developing world are vital elements for increased productivity and employment opportunities.

It is the responsibility of the Programme to maintain day-to-day contacts with the divisions of FAO and with industry. To facilitate such activities, a General Committee has been established, composed of senior executives of industrial firms that are prepared to work with FAO along the lines indicated below. Thus, a forum is provided for discussion of concrete projects of mutual interest, for reviewing Programme activities and for special presentations by experts from industry, FAO and other organizations. As of October 1968, the General Committee comprised senior executives of 59 multinational industrial companies.

An Executive Committee, a twelve-man group elected by the General Committee, provides policy guidance, reviews membership applications and seeks ways to expedite investment projects. Both Committees meet as often as they deem necessary.

The Programme has been established as the main, but by no means exclusive, contact between FAO and industry. Thus while the Programme is a point of reference for FAO staff on industry views and is a channel to explore the development and implementation of investment projects by industry, it is also a source of information about FAO activities and presents FAO's views on matters that might facilitate and expedite project implementation. The Programme attempts to analyse and implement investment at as early a stage as possible in FAO field projects and in projects from industry and government sources. Government co-operation and support is therefore an essential prerequisite for continuing success.

Through the Programme, industry has shown interest in fifteen of the UNDP/FAO projects completed by the end of 1967. Of these, the link between Programme activities and industry investments is evident in at least three cases. In addition, more than 40 UNDP/FAO projects have been, or are, of interest to industry through the Programme. It is evident that such projects have a wide-spread impact. For example, project information may supplement industrial surveys and influence over-all corporate planning that eventually defines investments including those that go beyond the project; or it may accelerate plans for training, research or demonstration programmes, licencing agreements, the application of new technology etc.

The number of projects proposed by industry and Governments is gradually increasing. Joint FAO/industry missions have helped to identify priority agro-allied investment opportunities, and Governments have been in contact with the Programme in other ways.

XXX.B.32

UNESCO

India - Metallurgical Engineering Institute, Jamshedpur

The purpose of this project is to provide post-graduate training in metallurgical engineering, including research, to students from India and other developing countries in the petroleum industry.

Duration: 5 years; 1965-1970

Estimated cost and

source of funds: \$1,000,000 UNDP/SF allocation
\$1,500,000 Gov't contribution
\$2,500,000 Total

XXX.B.34

UNESCO

India - Refining and Petrochemical Division, Indian Institute of Petroleum, Dehra Dun

The purpose of this project is to strengthen the refining Division and to establish a petrochemical division at the Indian Institute of Petroleum in order to provide training and research in petroleum refining and in petrochemical production and utilization.

Duration: 4 years; 1966-1970

Estimated cost and

source of funds: \$1,291,250 UNDP/SF allocation
\$1,897,667 Gov't contribution
\$3,188,917 Total

XXX.B.35

UNESCO

Iraq - Petroleum Research Institute, Baghdad

The purpose of this Institute is to carry out research, to provide post-graduate training for engineers, to train technicians for the petroleum industry and to strengthen and improve the training of petroleum and chemical engineers at the University of Baghdad.

Duration: 5 years; 1966-1971

Estimated cost and

source of funds: \$1,366,550 UNDP/SF allocation
\$2,518,200 Gov't contribution
\$3,884,750 Total

XXX.B.36

UNESCO

Syria - Industrial Testing and Research Centre, Damascus

This is a project designed to assist in the establishment of facilities for industrial standardization, research and development.

Duration: 6 years; 1965-1971

Estimated cost and

source of funds: \$1,107,000 UNDP/SF allocation
\$1,641,700 Gov't contribution
\$2,748,700 Total

of the Programme is to provide technical assistance to industry, particularly in the field of food processing, and to help industry to improve its productivity and to expand its export capacity. This is done through a variety of means, including technical assistance, training, and the provision of information.

Through the Programme, a number of projects have already been implemented, and many more are being planned. A particularly good example is the project in Turkey, which is a new fruit processing industry. This project, which is financed by UNDP, is a joint venture between the Government and private industry. The Government is providing the land and the initial investment, while the private industry is providing the technical and managerial expertise. The project is expected to be completed by the end of 1972. It will be instrumental in bringing together, for the first time, private capital, the state-operated sugar industry, co-operative and foreign private interests in industry, and supplying technical and managerial advice and will try to create a new industry in Turkey. The project has now been extended to include a feasibility study on other Turkish fruit and vegetables, to provide information for further expansion of processing activities.

Co-operation between FAO and industry has increased through the formation of ad hoc sub-groups of the General Committee. These include pilot groups on food habits and trends, with special reference to protein-rich foods, on pesticides and on forestry and forest industries. In addition, several companies have seconded experts to FAO to assist with specific projects, while others have participated in FAO and government technical meetings. The Programme has facilitated an increased exchange of technical and economic information between industry and FAO, particularly on commodities.

With regard to agriculture and farm machinery manufacturers in particular, the FAO/Industry Co-operative Programme now includes six leading companies, one of which contributed towards a training centre for machinery operators and maintenance workers in the South American region. The project has been implemented under ECHO in co-operation with the Government of Colombia.

Similar forms of co-operation and field assistance are now also being discussed with other companies which are members of the Programme, and one of these manufacturers is considering the possibility of establishing a demonstration farm. Another manufacturer is considering the preparation of a manuscript on land clearing, based on FAO field experience, to be issued by FAO in its publications programme.

The scope of the Programme was broadened recently when UNDP, FAO and Industry indicated their support for the concept that industry-initiated projects could provide the basis for new UNDP/FAO projects if they are endorsed by Governments and favourably reviewed by FAO. The role of FAO is to orient the pre-investment work of agro-allied industry so that it is well integrated within the framework of national or regional industrial development. Effectively, this means industry can bring forward, through the Programme, ideas for projects that are part of their own corporate planning, and that are within the framework of national economic development.

The Programme is also increasingly able to make industry expertise available through the provision of industry experts for FAO projects, particularly short-term experts for assignments that require industrial experience.

FAO/IBRD Co-operative Programme and co-operation with development banks

During 1968, the FAO/IBRD Co-operative Programme continued to expand its joint activities with the World Bank in the field of identification, preparation and appraisal of agricultural projects. From January to 30 September 1968 the Programme has carried out approximately 70 missions to more than 40 different countries for the purpose of identifying, preparing or appraising projects of possible Bank interest.

In 1968, up to the time of drafting this report, the World Bank or IDA has made an additional eight loans totalling \$70 million for agricultural projects which were identified, prepared or appraised with Co-operative Programme assistance. These were situated in Ceylon (lift pump irrigation), Costa Rica (agricultural credit), Ecuador (fisheries), Kenya (livestock), Malaysia (Jengka Triangle oil palm development), Mexico (Colorado irrigation) and Zambia (afforestation). This brings the total volume of agricultural lending for projects in which the FAO/IBRD Co-operative Programme has been involved since 1964 to over \$400 million.

This general expansion of agricultural investment activity is in line with World Bank policy. During the last six years, for example, up to 30 June 1968, the Bank lent some \$1,250 million for agricultural projects, more than had been devoted to agriculture during the previous sixteen years (\$580 million up to 1962). In the fiscal year 1961/1962, agricultural projects accounted for about 7.5 per cent of the total lending to developing countries from the Bank and IDA. During the fiscal year 1967/1968, this proportion was 13 per cent.

During the year, the Director-General of FAO announced the establishment of the FAO Investment Centre which incorporates the FAO/IBRD Co-operative Programme. The purpose of this Centre is to further the objective of orienting FAO activities towards investment and to help secure financing by appropriate and interested financial institutions. The Centre will act as a focus for the established FAO programmes with the International Bank, with the Inter-American Development Bank, with the African Development Bank (through the FAO Desk in Abidjan) and with the Asian Development Bank. It will also include programmes that may subsequently be started with other area banks. It will also be responsible for establishing co-operation with private banks.

The FAO/IBRD Co-operative Programme continued to follow closely the progress of selected UNDP projects for which FAO is the acting executing agency, particularly with a view to orienting

with a view to the preparation of a project proposal for the Bank. The Bank's assistance is available for the preparation of such proposals, and for the carrying out of the project.

With a view to the preparation of a project proposal for the Bank, the Bank's assistance is available for the preparation of such proposals, and for the carrying out of the project.

In preparing proposals for projects of the type mentioned above, an assessment of the economic justification of the industrial phase of such projects is an important step. In assessing the over-all economic justification, Malawi had an example (Jengka Industrial and pulp development) where the establishment of oil palm plantations into out-oven plantations will be preceded by the setting up of a forest industrial complex to make the most effective use of the merchantable timber available. In the case of the Louder fisheries project, financed by the Bank in 1968, an assessment was included of the freezing and processing facilities required, and the Bank loan made for this project included the financing of twelve tuna purse-seiners equipped with freezing systems. In the case of an afforestation project in Kenya, which was prepared by the Government with FAO/IBRD Co-operative Programme assistance, the economic benefits resulting from industrial processing of the wood were taken into account in assessing the project's economic justification.

In carrying out such assessments, the FAO/IBRD Co-operative Programme has worked in close co-operation with the staff of the FAO technical divisions concerned with industrial development, and such staff have from time to time participated in FAO/IBRD Co-operative Programme identification or preparation missions.

XXXII.D.3

FAO

FAO/Indicative World Plan

Industrial development related to agriculture enters in various phases of work of the Indicative World Plan (IWP). One of these phases relates to the industries based on the processing of products from the land and sea. The other concerns the input industries - fertilizers, petrochemicals for supply of pesticides, farm machinery and concentrate-feed plants. IWP also prepares a macro-model of the over-all economy and, consistent with the proposals for the agricultural sector, implications are drawn regarding the development of the non-agricultural sector.

The work on processing industries is still continuing. Its work field has been dealt with (provisionally) only for the region of Africa south of the Sahara. For Asia and South America, only estimates regarding processing of livestock, forestry and fishery products are also available. Work on processing industries in the region of Africa south of the Sahara will be completed in 1974.

XXXII.D.4
(Cont'd)

FAO

about 6 per cent per year and the non-food agro-allied industries at about 1.5 per cent per year for the period of 1962 through 1985. The processed products from forestry for South America and Asia are expected to increase at a rate of 6.5 per cent and 7.3 per cent respectively, for the same period; processed fishery products are likely to expand at rates somewhat higher than 3.4 per cent and 3.7 per cent for the two regions respectively.

A provisional finding appears to be that for food products, in particular the expansion of agro-allied industries is of the greatest importance to step up the exports of agricultural origin. The non-food processing industries are more important for affecting import substitution and for meeting local demand, especially for South America and Africa south of the Sahara.

IWP has prepared preliminary estimates for demand of inputs in agriculture from the industrial sector. By way of example in Asia (including Ceylon, China, Korea (Rep. of), India, Malaysia, Pakistan, Philippines and Thailand), the demand for fertilizers is expected to increase from about 350 million tons in 1962 to 5,200 million tons (nutrient contents) by 1985; in South America, the present ratio of about 180 hectares of harvested land per tractor is envisaged to decrease to about 125 by 1985; in Africa south of the Sahara demand for pesticides estimated at \$13 million in 1962 would rise to \$80 million by 1985.

Emphasis on a fast development in the industrial sector is indicated by the IWP macro-model for various developing regions by inter-relating the growth in the agricultural sector with the other sectors of the economy. In South America and Asia, for example, the rate of growth of the non-agricultural sector is shown by a 5.5 per cent and 6.9 per cent rate of GDP per year, respectively, for the period 1962 through 1985. In addition, due to a somewhat pessimistic outlook regarding the traditional agricultural exports, the required increases in exports would need to be met by a higher proportion of industrial goods.

The provisional estimates prepared by IWP will be revised after the completion of the World Study which is at present under preparation. Changes are also likely to be made as a result of discussion of the provisional reports with the various Governments.

XXXII.D.4

FAO

Sixth International Summer Course on Industrialization, the Hague

FAO contributed to the Sixth International Summer Course on Industrialization. This Course was organized by the Netherlands Universities' Foundation for International Co-operation and was held in the Hague from 15 July to 23 August 1968. Participants at the Course were informed of the FAO activities in the field of industrial development as already described in the 1967 FAO Annual Report. Main attention was given to the subject of: prevention of waste, quality up-grading of raw materials from agriculture, the requirements for processing in medium-size operations in rural areas, and the activities with respect to the need for more protein and processed food.

Duration: 15 July - 23 August 1968

XXXII.D.5

ILO

International Symposium of Occupational Health and Environmental Factors

This International Symposium of scientists was held from 16 to 21 September 1968 on the general theme of ergonomics and physical environmental factors. It was organized jointly by ILO and the Ente Nazionale Previdenza Infortuni.

The programme of the Symposium involved discussions on such fields as: mechanical vibrations, noise, electro-magnetic radiations, odours, lighting and interior climatic conditions. In general, these topics were discussed by attending scientists with respect to their industrial health significance on such aspects as physiological and psychological effects, recent research, industrial control methods and specific problems encountered in industry.

Duration: 16-21 September 1968

XXXII.D.6

UNESCO

Psychological and social factors influencing the career and working conditions of research workers

UNESCO prepared a methodological study on the optimum parameters for the organization of research and working conditions for research workers which was considered by a group of experts in October 1968 and will be used from 1969 onwards in the countries requesting it to assess the efficiency of research and of research workers.

Duration: October 1968

XXXII.D.7

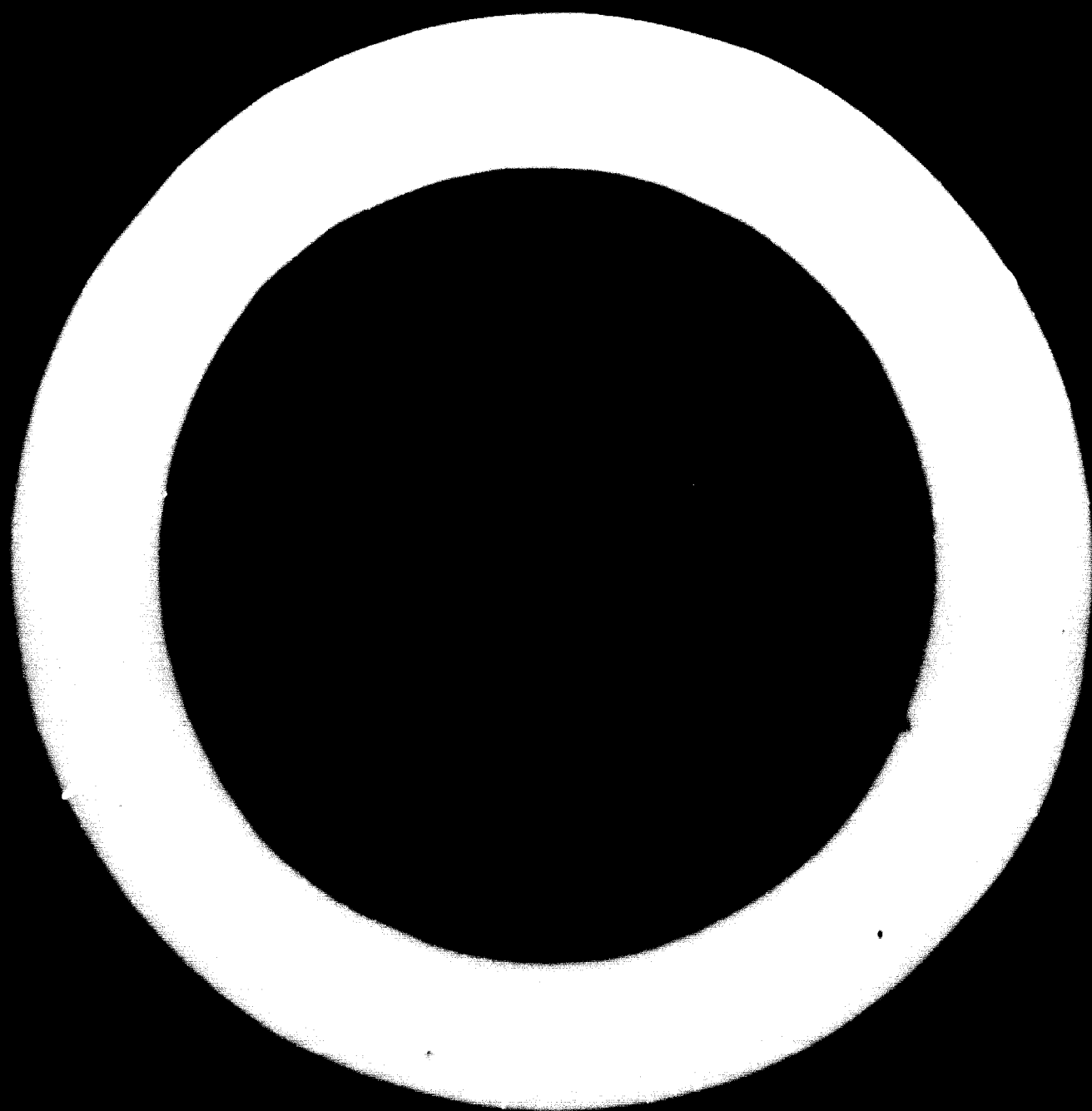
WMO

Economic benefit of meteorology to industry

The purpose of this study is to determine the present extent and benefit of the application of meteorology to industry and other segments of the economy and to examine methods for extension and improvement.

Authority: WMO resolution 8 (EC-XX)

Duration: Report to be submitted in May 1969



ANNEX I

INDEX OF PROJECTS BY REGIONS AND COUNTRIES

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	XX.92	UNIDO	Reorganization of biscuit and pastry factories
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Botswana	VI.B.53	ILO	Vocational training in electrical trades
Burundi	V.A.22	UNIDO	Adviser on small-scale industries
	XX.15	FAO	Dairy industry development
Cameroon	II.D.21	UNIDO	Industrial financing and evaluation of projects
	IV.E.14	UNIDO	Feasibility studies on projects for the Development Plan
	V.C.6	UNIDO	Establishment of a pilot industrial estate
	XXIV.15	FAO	Forest and forest industries development

Industrial

	<u>Code</u>	<u>Agency</u>	<u>Description</u>
Cote d'Ivoire Cote d'Ivoire Cote d'Ivoire	V.A.1	UNIDO	Study on industrial development
	XX.1	FAO	Study on industrial development
	XX.2	UNIDO	Study on industrial development
	XXIV.14	FAO	Study on industrial development
	XXXII.A.1	ILO	Study on industrial development
Chad	XX.70	FAO	Study on industrial development
	XX.71	FAO	Study on industrial development
	XX.72	FAO	Study on industrial development
	XX.98	UNIDO	Technical assistance in industrial development
	XXII.4	FAO/GATT	Reorganization of cotton industry
Congo (Brazzaville)	V.A.24	UNIDO	Development of small-scale industry
	XIII.38	UNIDO	Development programme for metallurgical industries
	XX.99	UNIDO	Modernization of palm oil extraction plants
	XX.100	UNIDO	Study on an agro-industrial complex to manufacture canned pineapple
	XXIV.20	FAO	Forestry training and demonstration centre
	XXXII.A.3	ILO	Social security administration
Congo (Democratic Republic of)	IV.A.6	UNIDO	Organizing a project evaluation team to deal with industrial and capital investment projects
	IV.B.2	UNIDO	Advisory mission to the Democratic Republic of the Congo
	V.A.25	UNIDO	Development of small-scale industry
	VI.B.62	ILO	National Institute for Vocational Training
	VI.E.4	UNESCO	National Institute of Building and Public Works, Kinshasa
	VI.G.12	UNESCO	National Mining Institute
	XVIII.13	UNIDO	Fertilizer production and marketing
Dahomey	II.F.12	UNIDO	Mission to Dahomey and Togo
	IV.D.9	UNIDO	Survey of industrial development potentials
	IV.E.17	UNIDO	Feasibility studies on projects in the development plan
	IV.E.18	UNIDO	Industrial policy, project evaluation

AFRICA (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Ghanaey (cont'd)	XX.31	FAO/UNICEF (FFHS)	Establishment of two poultry breeding centres in Cotonou and Kpinou
	XX.32	FAO	Assistance to Produce Marketing Board (OCAD)
	XXI.12	FAO	Marine fisheries development project
Ethiopia	II.E.17	ILO	Minimum wage fixing
	III.B.2	IFC	Ethiopia
	IV.E.19	UNIDO	Survey of the manufacturing industry
	V.B.17	UNIDO	Managerial organization of industrial undertakings
	VI.B.123	UNESCO	Functional literacy, instruction of industrial workers
	VI.1.5	ILO	Management and entrepreneurship training and advisory centre, Addis Ababa
	XVI.2	ECA	Technical assistance
	XX.34	FAO/UNICEF	Dairy plant
	XX.102	UNIDO	Meat processing operations
	XXVI.3	FAO	Hides, skins and leather industry development
	XXVI.4	FAO (FFHC)	Tools for improved hides and skins flaying and curing
	XXVI.14	UNIDO	Hides and skins purchasing and export organization for leather producing and processing industry
	XXX.C.6	UNIDO	Establishment of a national standards institution
	XXXII.B.18	WHO	Research activities - Health and safety problems con- cerning work and working conditions
Gabon	V.A.28	UNIDO	Development of small and medium-scale industries
	VI.B.68	ILO	Vocational training
	XXIV.22	FAO	Forest development
Ghana	IV.A.7	UNIDO	Establishment of systematic methods of planning and implementation of production targets
	VI.B.69	ILO	National vocational training programme
	VI.1.6	ILO	Management development and productivity institute
	XX.35	FAO	Food research and development unit
	XXI.15	FAO	Fishery research unit
	XXI.16	FAO	Expansion of facilities for fisheries research on the Volta Lake
	XXIII.19	UNIDO	Management of fibre bag manufacturing plant
	XXIV.23	FAO	Woodworking industries

1968 - 1969

The following field projects were developed during 1968

Algeria
Centre for Industrial and Technological Studies (AIU-12)
 UNDP SF 3/18
 Gov't 629,000
 Total 1,449,700

XXX.P.32 UNISCO Colombia - Industria, University of Santander, Bucaramanga (CU-5)
 (for description see chapter VI E.10)

XXX.P.34 UNISCO Mongolia - Polytechnic Institute, Ulan-Bator
 (for description see chapter VI E.5)

UNIDO The following field projects were developed during 1968

			Pro- gramme	Experts m/a		Cost \$
XXX.P.40	Algeria	<u>Centre for Industrial and Technological Studies (AIU-12)</u>	SF	3/18	UNDP Gov't	820,700 629,000 Total 1,449,700
XXX.P.41	Argentina	<u>Establishment of a laboratory of applied combustion (111-57)</u>	IA	1/2 days		
XXX.P.42	Bulgaria	<u>Establishment of a packing media research and experimental institute (68-268)</u>	SIS	1/1		7,500
XXX.P.43	Burkina Faso	<u>Establishment of a metrology laboratory (1-57)</u>	IA	1/6		10,920
XXX.P.44	China	<u>Review of the programme of research of the Union of Industrial Research Institute (68-292)</u>	SIS	1/12		23,100
XXX.P.45	Colombia	<u>Institute for Technological Research, Bogotá, (Phase II) (CN-30)</u>	SF	3/17	UNDP Gov't	780,700 983,000 Total 1,763,700
XXX.P.46	Czechoslovakia	<u>Integration and coordination of industrial research (43-26)</u>	IA	1/1		10,800
XXX.P.47	Dominican Republic	<u>Increased efficiency of Industrial Research Institute (68-268)</u>	SIS	1/1		71,300

AFRICA (cont'd)

	<u>Code</u> ●	<u>Agency</u>	<u>Title</u>
Ghana (cont'd)	XXXI.D.33	UNIDO	Ghana Milling Corporation (G.M.C.)
	XXXI.D.40	UNIDO	Reorganization of the State Enterprises Corporation
	XXXII.C.1	ECA	Studies on housing missions
	XXXII.A.3	ILO	Social security (actuarial)
Guinea	II.E.18	ILO	Determination and structure of wages
	VI.B.124	UNESCO	Functional literacy, instruction of industrial workers
	VI.G.16	UNESCO	Polytechnic Institute of Conakry
	VI.I.7	ILO	National centre for management development and training
	XVI.19	UNIDO	Development of the chemical industry
	XVIII.15	UNIDO	Production of organic fertilizers
	XX.103	UNIDO	Establishing a laboratory for vegetable and essential oils
	XXII.6	FAO	Coconut fibre processing
	XXIII.20	UNIDO	Techno-economic feasibility study of a cotton ginning pilot plant
	XXIV.25	FAO	Forestry Training and Demonstration Centre
Ivory Coast	VI.B.80	ILO	Vocational training planning and organization
	VI.E.6	UNESCO	Consultant mission on higher technical education
	XXIV.28	FAO	Forestry training, demonstration and advisory services
	XXXI.A.5	UNIDO	Centre for Industrial Studies and Promotion
Kenya	II.E.6	ILO	Industrial relations procedures and social institutions - experts
	V.C.9	UNIDO	Management of industrial estate, training programme
	V.F.10	UNIDO	Setting up a workshop in the industrial estate of Nairobi
	VI.B.82	ILO	National industrial apprenticeship scheme
	VI.E.7	UNESCO	Kenya Polytechnic, Nairobi
	VI.G.18	UNESCO	Faculty of Engineering, University College, Nairobi
	VI.I.13	ILO	Management Training and Advisory Centre
	XVI.24	UNIDO	Feasibility of producing caustic soda
	XX.47	FAO	Dairy industry development
	XX.48	FAO	Dairy industry development
	XX.49	FAO/UNICEF	Dairy training
	XX.107	UNIDO	Feasibility study on dry and wet maize milling

Annex 1
 Page 1

AFRICA

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Egypt	XXI.D.6	UNIDO	Feasibility study of a caster oil factory
	XXIII.1	UNIDO	Analysing techno-economic problems of the textile industry
	XXIII.C.1	ECA	Studies on housing missions
Ethiopia	IV.D.15	UNIDO	Industrial planning and project evaluation
	IV.E.16	UNIDO	Steel fellowship
	XIII.47	UNIDO	Analysis of data and execution of steel project
	XIII.48	UNIDO	Advisory services for steel project
	XIII.49	UNIDO	Steel project study
Libya	VI.B.87	ILO	Industrial vocational training scheme
	VI.G.19	UNESCO	College of Advanced Technology
	XIV.32	UNIDO	Building materials research and products evaluation
	XVII.21	UNIDO	Production of petrochemicals
	XX.52	FAO	Food processing industries
	XX.109	UNIDO	Management of vegetable oil operations
	XXI.22	FAO	Libya
	XXII.18	UNIDO	Fodder yeast production from petroleum refinery by-products
	XXX.B.49	UNIDO	Planning and organization of chemical research programme
XXX.C.9	UNIDO	Organizing specifications and standardization section	
Madagascar	IV.D.16	UNIDO	Advice on problems of industrial development
	IV.E.27	UNIDO	Evaluation of industrial projects
	V.C.10	UNIDO	Development of small-scale industry and establishment of industrial estates
	XIV.33	UNIDO	Rehabilitation of brickworks industry
	XVIII.18	UNIDO	Nitrogen fertilizers production and export possibilities
	XX.53	FAO	Dairy development
	XX.110	UNIDO	Setting up of vegetable oil plant
	XXI.23	FAO	Fishery development
	XXIV.10	FAO	Survey and development of selected forest areas

	<u>Code</u>	<u>Agency</u>	<u>Description</u>
Malawi	XXI	AID	Manufacturing enterprise
	XX,57	FAO	Fishery development
	XX,124	FAO	Banking and credit facilities for industry and commerce
Mali	II.D.1.7	UNIDO	Survey of industrial resources and potential for development
	II.E.1.11	ILO	Vocational training equipment for the handicapped
	VI.B.126	UNESCO	Functional literacy, for the field of industrial production
	XIII.30	UNIDO	Evaluation of projects and other industrial projects
	XX,57	FAO	Dairy industry development
	XX,111	UNIDO	Improvement of meat processing and production
	XX,129	WFP	Development of milk industry in Gao
	XXI.24	FAO	Fish preservation, storage, packaging
	XXXI.D.42	UNIDO	Advisory services to the Ministry for State-owned Enterprises
XXXII.A.3	ILO	Technical assistance projects in the field of social security, initiated in 1962	
Mauritania	III.B.5	IFC	Mauritania
	V.A.33	UNIDO	Development of small-scale industries
	XXX.B.27	UNESCO	Industrial and technological research
Mauritius	VI.B.92	ILO	National system of vocational technical education
	XV.7	UNIDO	Feasibility study on the establishment of a glass industry
	XX,58	FAO	Development of milk and beef production
	XXI.25	FAO	Fishery development
	XXIII.25	UNIDO	Evaluation of a feasibility report for the establishment of a textile industry
	XXIX.9	UNIDO	Survey of industries using sugar-cane bagasse as principal raw material
Morocco	VI.E.1	ILO	National Institute for Leather and Textile
	V.A.34	UNIDO	Development of small-scale industries
	V.C.11	UNIDO	Feasibility of a pilot industrial estate
	XXIII.26	UNIDO	Textile industry development
	XXXI.C.9	UNIDO	Organization of an industrial information service

AFRICA (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Niger	IV.D.18	UNIDO	Industrial programming and project evaluation
	V.C.12	UNIDO	Establishment of pilot industrial estate
	XX.60	FAO	Dairy industry development
	XX.61	FAO	Feasibility study for the industrial development of millet
	XX.112	UNIDO	Five-year programme of development for the agro-industry in Niger
	XX.130	WFP	Development of milk production in Niamey
Nigeria	II.D.28	UNIDO	Evaluation of feasibility studies for manufacturing industries and project implementation
	V.C.13	UNIDO	Development of industrial estates
	V.F.4	ILO	Co-operatives
	VI.F.6	UNESCO	Training of technical teachers
	VI.G.23	UNESCO	Faculty of Engineering, University of Lagos
	XX.62	FAO	Dairy industry development (northern region)
	XX.63	FAO	Cashew nuts and soybean processing
	XX.113	UNIDO	Food processing
	XXI.27	FAO	Fishery survey in the western and mid-west regions
	XXVI.6	FAO	Hides and skins demonstration and training projects, northern region
	XXX.B.50	UNIDO	Directing the Federal Institute of Industrial Research
	XXXII.B.5	ILO	Fellowships in occupational safety and health during 1968
	XXXII.B.12	ILO	Occupational health
Rwanda	IV.E.34	UNIDO	Industrial project formulation, evaluation and implementation
	V.A.36	UNIDO	Development and expansion of small-scale industries
	XIV.37	UNIDO	Establishment of a cement factory
	XVII.23	UNIDO	Uses of methane gas
	XVIII.21	UNIDO	Pilot plant for industrialization and pyrethrum production, Mukingo
	XX.69	FAO	Dairy industry development
	XX.114	UNIDO	Establishment of a malt factory
	XX.115	UNIDO	Fruit and vegetable processing
XXII.19	UNIDO	Development of the tea industry	

AFRICA (cont'd)

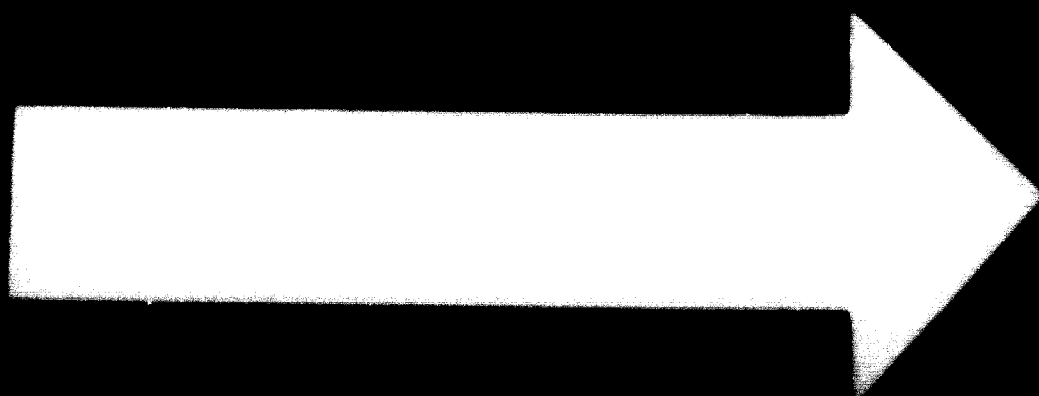
	<u>Code</u>	<u>Agency</u>	<u>Description</u>
Swaziland (cont'd) (cont 198)	XX.1.	FAO	Study, with a view to carrying out, of a research centre, Kibungwe
	XXI.A.8	UNIDO	Establishment of a computerized production control
	XXXII.A.3	ILO	Technical assistance project in the field of occupational security, initiated in 1968
Senegal	V.A.37	UNIDO	Development of small-scale industries
	V.A.38	UNIDO	Formulation and implementation of a development policy for small industries
	V.C.15	UNIDO	Transformation of military installation into an industrial estate
	XIII.53	UNIDO	Expansion and development of aluminium foundries
	XX.73	FAO/UNICEF	Dairy industry development
	XX.74	FAO	Institute of Food Technology, Dakar
	XXXII.A.3	ILO	Technical assistance projects in the field of social security, initiated in 1968
Sierra Leone	VI.B.103	ILO	Vocational training in building trades
Somalia	IV.D.25	UNIDO	Industrial programmer and industrial cost accountant
	IV.E.35	UNIDO	Project formulation, evaluation and implementation
	VIII.12	UNIDO	Reducing the cost of electric power
	XIV.38	UNIDO	Commercial utilization of gypsum and septiolite
	XX.116	UNIDO	Survey of food processing plants
	XX.117	UNIDO	Operation of the Chisimale plant
	XXI.31	FAO	Development of the fishing industry
	XXVI.8	FAO	Training centre for hides, skins and leather development
Sudan	II.D.8	UNIDO	Mission to Sudan
	IV.D.26	UNIDO	Preparation of programme for the industrial sector
	V.A.39	UNIDO	Transformation of artisan activities and the stimulation of new small-scale industries
	VI.B.105	ILO	National vocational training scheme
	VI.B.127	UNESCO	Functional literacy, instruction of industrial workers
	VI.I.16	ILO	Management Development and Productivity Centre
	XVIII.22	UNIDO	Ammonia and Urea fertilizer plant specifications
	XX.75	FAO	Food processing research centre
	XX.76	FAO	Agricultural products processing

Annex 1

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Sudan	XXI.11	UNIDO	System of grading and standardization of oil seeds
	XXI.12	UNIDO	Personnel training at food processing plants
	XXIV.34	FAO	Forestry research and education centre, Khartoum
	XXVI.24	FAO	Demonstration and marketing research for improved hides, skins and leather production
	XXVI.28	UNIDO	Leather production technology and marketing
	XXX.4.5	UNIDO	Industrial Research Institute, Khartoum
	XXXI.5.43	UNIDO	Organization and administration of the public sector
	XXXII.A.3	ILO	Technical assistance projects in the field of social security, initiated in 1968
Swaziland	VI.P.106	ILO	Vocational training adviser
Togo	II.F.13	UNIDO	Mission to Dahomey and Togo
	IV.D.9	UNIDO	Survey of industrial development potentials
	IV.D.27	UNIDO	Industrial development programming
	VI.B.110	ILO	Inter-enterprise further training centre, Lomé
	XX.121	UNIDO	Establishment of a plant to manufacture dry cassava flakes
	XXIV.42	FAO	Development of forest resources
	XXXII.A.3	ILO	Technical assistance projects in the field of social security, initiated in 1968
Tunisia	II.D.32	UNIDO	Promoting foreign investment
	III.A.12	IBRD/IDA	\$10 million loan of September 1967 to the Société Nationale d'Investissement (SNI)
	V.F.7	ILO	Building industry
	V.F.8	ILO	Centre for Co-operative Development
	VI.B.111	ILO	National Institute for Training and Further Training, Radès
	VI.I.21	ILO	National Productivity Institute
	VII.46	UNIDO	Industrial cost accounting system
	VII.47	UNIDO	Selection of equipment and production methods
	XI.9	ILO	Employment and prevocational training of fishermen
	XI.13	UNIDO	Modernization of dockyard facilities and equipment
	XX.122	UNIDO	Increasing efficiency of fruit-oil processing
	XXXI.A.10	UNIDO	National Centre for Industrial Studies, Tunis
XXXII.B.50	WHO	Consultants on occupational health and safety 1968	

AFRICA (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Uganda	V.B.17	ILO	Management training and advisory centre
	V.A.42	UNIDO	Development of small-scale industries
	V.C.18	UNIDO	Development of small-scale agro-industrial enterprises on estates, Kampala
	VI.E.10	UNESCO	Uganda Technical College, Kampala
	VII.50	UNIDO	Refrigerator and clove production and supervision of plant
	XVIII.27	UNIDO	Fertilizer industry; investment and market arrangement
	XX.81	FAO	Dairy industry development
	XX.123	UNIDO	Survey of food processing
	XXII.15	FAO	Development of tobacco industry
	XXXII.B.31	WHO/ILO	Occupational health survey
United Arab Republic	V.B.11	ILO	Institute of Small Industries, Cairo
	VI.B.113	ILO	Productivity and vocational training project, Cairo
	VI.B.114	ILO	Electric training power institute
	VI.B.115	ILO	Vocational training institute for industry
	VI.B.116	ILO	Vocational training for Egyptian Railways
	VI.E.11	UNESCO	Institute of Petroleum and Mining, Suez
	VI.E.12	UNESCO	Mansoura Polytechnic Institute for Higher Education
	VII.51	UNIDO	Engineering and Industrial Design Development Centre, Nasser City
	VIII.13	UNIDO	Design and manufacturing of high-voltage porcelain insulators
	XIII.59	UNIDO	Exploitation of heavy black beach sand
	XVI.30	UNIDO	Organic chemical industries
	XVIII.28	UNIDO	Urea and ammonium sulphate projects preparation
	XIX.3	FAO	Central Agricultural Pesticides Laboratory
	XIX.5	UNIDO	Demonstration pesticides production plant based on chlorine and bromine resources
	XX.82	FAO/UNESCO	Mansoura Polytechnic Institute for Higher Education
	XXIII.31	UNIDO	Extension of cotton textile facilities
	XXIII.32	UNIDO	Establishment of a central textile research and development institute
XXIII.33	UNIDO	Production of raw and natural silk	
XXV.12	UNIDO	Supervising the operation of Egyptian pig iron plant	



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XXX.B.47	India	<u>Technical assistance for industrial research (IND-11)</u>	1/12			
XXX.B.48	India	<u>Technical assistance for industrial research (IND-12)</u>	1/12			
XXX.B.49	India	<u>Technical assistance for industrial research (IND-13)</u>	1/12			
XXX.B.50	Nigeria	<u>Technical assistance for industrial research (NIG-1)</u>	1/12			
XXX.B.51	Philippines	<u>Technical assistance for industrial research (PHI-1)</u>	1/12			
XXX.B.52	Singapore	<u>Industrial research facilities and their improvement (SING-67)</u>	1/12			
XXX.B.53	Sudan	<u>Industrial Research Institute, Khartoum (SUD-12)</u>	6/24 (4/12 fellows)	UNDP Gov't	254,100 1,405,000	Total 1,659,100
XXX.B.54	Thailand	<u>Technological Research Institute, Bangkok (THA-16)</u>	4/36 (1/6 fellows)	UNDP Gov't	846,000 2,167,000	Total 3,013,000
XXX.B.55	Regional	<u>Regional adviser on industrial research attached to ICAII (ID-1083)</u>	1/12			
XXX.B.56	Regional	<u>The Central American Research Institute for Industry (ICAII) Phase II (REG-68)</u>	2/24 (6/22 fellows)	UNDP Gov't	337,000 106,500	Total 4,439,000

C. Industrial standards

XXX.C.1 UNESCO Standards, metrology and instrument centres

This project involves the promotion of B-level metrology centres together with maintenance of basic standards of measurement and the training of personnel for standards institute.

In 1968 consultants the East African Community countries, Ethiopia, Ghana and Nigeria studied the feasibility and requirements of such centres. UNIDO and ILO participated in this project.

XXX.C.1
(cont'd)

UNESCO

A seminar on the situation of metrology centres and scientific instruments in developing countries was held in Cairo.

Duration: 1968 - continuing

Estimated cost and source of funds: \$14,500 from regular programme

UNIDO

The following field projects were developed during 1968

			<u>Pro- grams</u>	<u>Experts /a</u>	<u>Cost</u>
XXX.C.2	Afghanistan	<u>Introduction and implementation of the metric system (155-63)</u>	TA	1/12	19,900
XXX.C.3	Argentina	<u>Weights and measures legislation (11-57)</u>	TA	1/4	7,560
XXX.C.4	Barbados	<u>Elaboration of industrial standards system (87-63)</u>	TA	1/12	23,100
XXX.C.5	Brazil	<u>Establishment of industrial standards (88-284)</u>	SIS	2/8	21,000
XXX.C.6	Ethiopia	<u>Establishment of a national standards institution (97-62)</u>	TA	1/12	22,000
XXX.C.7	Iran	<u>Planning and execution of a programme of standardization (220-57)</u>	TA	1/12	23,100
XXX.C.8	Iran	<u>Preparation and implementation of national standards (220-57)</u>	TA	1/12	23,100
XXX.C.9	Libya	<u>Organizing specifications and standardization section (X80-460)</u>	TA	1/12	23,100
XXX.C.10	Thailand	<u>Establishment and implementation of industrial standards (82-57)</u>	TA	1/12	17,650
XXX.C.11	Regional	<u>Regional adviser on industrial standardization attached to ECAFE (ID-108A)</u>	REG	1/11	28,180

CHAPTER XXXI

INDUSTRIAL INSTITUTIONS

A. Industrial promotion and development organizations

XXXI.A.1

ECA

Conference on Industry and Finance

Pursuant to resolution 154 (VIII) of the eighth session of the Commission, the Conference on Industry and Finance was held in Addis Ababa, from 25 to 27 March 1968. It was attended by the representatives of seventeen member states and nominees of fifteen industrialized countries in Europe, America and Asia. The purpose of this Conference a follow-up of the Conference of Industrialists and Financiers held in January 1967, was to discuss the establishment and functions of multinational industries promotion centres.

The participants generally approved the scheme for the establishment of industrial promotion centres proposed by ECA, and discussed their terms of reference. (See Report of the Conference on Industry and Finance (E/CN.14/414).)

In accordance with the recommendations of this and of the previous conferences and the appropriate decisions of the Commission, the secretariat has started its preliminary consultations with African Governments for the establishment of industrial promotion centres.

Follow-up action has been initiated on the offers of assistance made by the representatives of some countries, Sweden and the United States in particular, during the Conference on Industry and Finance.

Duration: 25-27 March 1968

XXXI.A.2

UNIDO

Medium industry multiple plant franchise chains

Preparatory work was undertaken in 1968 with a view to the possible creation, initially on a pilot scale, of medium industry multiple plant franchise chains. If the results of the preliminary exploration are favourable, the project is expected to be implemented in 1970.

Authority: IDB, 1968 (ID/B/20/Rev.1/Add.1, para.142(a))

Duration: Continuing

Estimated cost and

source of funds: \$4,000 from Consultant Funds; 1968 - 2 staff man-months

Industrial Promotion Service

The Industrial Promotion Service began operation during the International Symposium for Industrial Development (Athens, 15 November to 19 December 1967) as a clearing house for private and public organizations from industrialized and industrializing countries interested in technical and financial assistance in specific projects and problems related to industrial development. As a follow-up, in 1968 the Service has contacted each registrant and published a list of participants. Preliminary arrangements have been made for a similar operation at the Second Asian International Fair in Lebanon in 1969 and at the World Exposition in Osaka in 1970. In addition to these activities, an expert visited five countries and developed a system of industrial opportunity assessment panels which will regularly supply information on the opportunities in four of these countries. Such panels are now being established in other countries and the computerized system for processing the data which have been and will be collected from them has been formulated.

Authority: IDB, 1968 (ID/R/20/Rev.1/Add.1, p. 29)

Duration: Continuing

Estimated cost: \$9,650 for outside contracted services, including travel and subsistence for the consultant; 12 staff man-months, 6 man-months (Consultant)

UNIDO

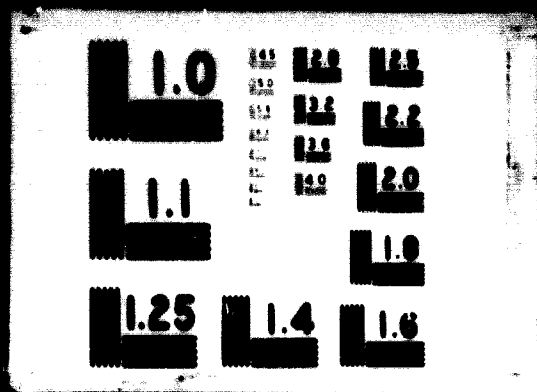
The following field projects were developed during 1968

			Pro- gramme	Experts n/a		Cost \$
XXXI.A.4	Iran	<u>Research Centre for Industrial and Trade Development (IRA-16)</u>	SF	3/36 (6/72 fellows)	UNDP Gov't Total	1,058,900 <u>1,560,000</u> 2,618,900
XXXI.A.5	Ivory Coast	<u>Centre for Industrial Studies and Promotion (IVCO-13)</u>	SF		UNDP Gov't Total	479,100 <u>318,000</u> 797,100
XXXI.A.6	Jordan	<u>Centre for Industrial Development, Amman (JOR-13)</u>	SF	5/60 (4/2 fellows)	UNDP Gov't Total	1,153,100 <u>534,926</u> 1,688,026
XXXI.A.7	Malaysia	<u>Directing the Industrial Service Centre (68-300)</u>	SIS	5/30		37,500
XXXI.A.8	Rwanda	<u>Establishment of an industrial promotion service (68-331)</u>	SIS	1/1		3,000
XXXI.A.9	Saudi Arabia	<u>Industrial Studies and Development Centre, Riyadh (SAU-14)</u>	SF	8/60	UNDP Gov't Total	634,500 <u>2,000,000</u> 2,634,500

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AFRICA (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
United Arab Republic (cont'd)	XXXI.B.27	UNESCO	Industrial and technological research
	XXXI.B.28	UNESCO	National Physical Laboratory for Metrology, Cairo
	XXXI.B.5	ILO	Fellowships in occupational safety health during 1968
	XXXI.B.14	ILO	Occupational Safety and Health Institute, Heliopolis
	XXXI.B.30	WHO	Consultants on occupational health and safety 1968
United Republic of Tanzania	II.E.6	ILO	Industrial relations procedures and social institutions - experts
	VI.B.108	ILO	National industrial apprenticeship scheme
	VI.I.18	ILO	National Institute for Productivity
	XXIV.40	FAO	Forest industries development planning
	XXIV.41	FAO	Forest industries development
	XXXI.A.11	UNIDO	Industrial Studies and Development Centre, Dar-es-Salaam
Upper Volta	V.C.19	UNIDO	Establishment of a pilot industrial estate
	XX.124	UNIDO	Development of the vegetable oil processing industry
	XX.125	UNIDO	Exploratory mission for millet milling
	XXI.39	UNIDO	Development of the fish processing industry
Zambia	II.A.13	UNIDO	Assistance to the Industrial Development Corporation
	V.A.43	UNIDO	Establishment of industries in rural areas
	VI.B.120	ILO	National industrial vocational training scheme
	VII.53	UNIDO	Survey of metalworking and engineering industry
	XXIV.45	FAO	Forest industries feasibility study
Regional	I.A.1	ECA	Economic Survey of Africa
	I.A.2	ECA	Economic Bulletin for Africa
	I.A.3	ECA	Annual Economic Survey of Africa, 1967: A Survey of Economic Conditions in Africa
	I.A.4	ECA	Fourth Interregional Seminar on Development Planning: Development projects and planning for the coming decade with special reference to Africa
	I.B.1	ECA	Working group meeting on income distribution statistics
	I.B.2	ECA	Seminar on Industrial statistics
	I.B.3	ECA	Seminar on Statistical Sampling Methods
	I.B.4	ECA	Yearly Statistics of Industrial Production
	I.B.5	ECA	Quarterly Statistical Bulletin

THE AMERICAS (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Ecuador (cont'd)	XXI.14	FAO	National Fisheries Institute
	XXIII.18	UNIDO	Assistance to the Industrial Centre for Development of Textile Production
	XXXII.B.29	WHO	Fellowships in occupational health awarded during 1968
El Salvador	V.A.27	UNIDO	Development of small-scale industries
	VI.B.67	ILO	Accelerated vocational training in the building trades
Guatemala	IX.5	IAEA	Industrial application of radioisotopes
	XXIV.24	FAO	Pre-investment study on forestry development
Guyana	XX.104	UNIDO	Food industries productivity and quality improvement
	XXXII.A.3	ILO	Technical assistance projects in the field of social security, initiated in 1968
Haiti	IV.D.13	UNIDO	Industrial programming and project planning
	V.F.3	ILO	Co-operative centres of rural handicraft
	XVI.20	UNIDO	Establishment of an essential oils industry
Honduras	III.B.10	IFC	Promotion of new industrial ventures - Honduran pilot corporation
	IV.E.20	UNIDO	Industrial planning and project evaluation
	IV.E.21	UNIDO	Formulation, evaluation and co-ordination of National Industrial Programme
Jamaica	V.9.7	ILO	Productivity Centre, Kingston
	V.E.2	UNIDO	Design and production of handicrafts
	V.E.3	UNIDO	Furniture production methods and techniques
	VI.1.20	UNIDO	Maintenance workshops, problems of management and training
	XV.5	UNIDO	Utilization of local clays and glazing techniques
	XX.45	FAO	Food crops development and marketing feasibility survey
	XVI.20	FAO	Marine fishery development
	XXVI.19	UNIDO	Leather industry improvement
	XXVI.20	UNIDO	Footwear production and quality

THE AMERICAS (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Mexico	III.B.6	IFC	Mexico
	IV.C.17	UNIDO	Resource surveys of the State of Oaxaca
	IV.E.31	UNIDO	Evaluation of manufacturing projects
	IV.E.32	UNIDO	Industrial planning
	VI.A.20	UNESCO	Technical assistance
	VI.B.93	ILO	Servicio Nacional de Adiestramiento Rápido de la Mano de Obra en la Industria (ARMO)
	VI.E.9	UNESCO	Regional Centre for Industrial Technical Training (CERETI), Guadalajara
	VI.G.22	UNESCO	National Centre for Technical Teacher Training, Mexico City
	VI.H.7	UNESCO	Centre of training for graduate engineers and professors of engineering, science and technology, Mexico City
	XVI.25	UNIDO	Pharmaceutical Industry
	XX.59	FAO	Training, research and extension in animal husbandry at the School of Agriculture (ITESA), Monterrey
	XXI.26	FAO	Fishery research and development project
Netherlands Antilles	V.A.35	UNIDO	* Development of small-scale industries
Nicaragua	Ii.B.4	UNIDO	Fiscal incentives and industrial development policies
	III.B.7	IFC	Nicaragua
	IV.D.17	UNIDO	Evaluation of feasibility studies for manufacturing industries and project implementation
	XVII.22	UNIDO	Evaluation of a petrochemical project based on indigenous surplus hydrochloric acid
	XXIV.36	FAO	Investigation for the development of forest resources
Panama	V.B.8	ILO	National Service for Crafts and Small-scale Industries
	V.F.5	ILO	Co-operatives
	VI.B.99	ILO	Development of human resources, vocational training
	XXX.B.27	UNESCO	Industrial and technological research
Paraguay	II.A.10	UNIDO	Industrial development emphasizing balance of payment implications
	XXX.B.51	UNIDO	Technical Standards National Institute

THE AMERICAS (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Peru	IV.D.20	UNIDO	Projections for basic petrochemical products
	VI.B.100	ILO	Servicio Nacional de Aprendizaje y Trabajo Industrial (SENATI)
	VI.B.130	WFP	Feeding vocational training centre (SENATI)
	VI.G.24	UNESCO	School of Technology, National University of Engineering, Lima
	VI.I.29	UNIDO	In-plant training of executives
	XI.12	UNIDO	Shipbuilding industry
	XII.4	UNIDO	Automotive industries
	XVIII.20	UNIDO	Formulation of projects for the production of nitrogen, phosphate and potash fertilizers
	XXI.29	FAO	Peruvian Sea Institute (formerly Marine Resources Research Institute)
	XXIII.29	UNIDO	Analysis of industrial production costs of the textile industry
Surinam	XXV.10	UNIDO	Feasibility of establishing a bagasse pulp and paper mill
	XXXI'.B.5 *	ILO	Fellowships in occupational safety and health during 1968
	XXII.13	FAO	Development of coir and copra processing industry
Trinidad and Tobago	V.A.41	UNIDO	Development of small-scale industries
	VI.G.29	UNESCO	Faculty of Engineering, University of the West Indies
	VI.I.20	ILO	Management Development and Productivity Centre - Port of Spain
	XX.120	UNIDO	Food processing industry
	XXV.11	UNIDO	Rehabilitation of a paper mill
Uruguay	VI.B.118	ILO	Centro de Perfeccionamiento Técnico (ICT) of the Universidad del Trabajo del Uruguay (UTU)
	XI.10	ILO	Organization of work in Port of Montevideo
	XX.126	UNIDO	Productivity of the food processing industry
	XXV.6	FAO	Pulp and paper development
Venezuela	II.E.6	ILO	Industrial relations procedures and social institutions - experts
	III.B.8	IFC	Venezuela
	VI.E.13	UNESCO	National Polytechnic Institute, Barquisimeto
	VI.G.31	UNESCO	School of Industrial Engineering, Central University, Caracas

THE AMERICAS (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Venezuela (cont'd)	VI.I.23	ILO	Venezuelan Institute of Productivity
	VII.52	UNIDO	Increase of metalworking products
	XVII.26	UNIDO	Survey of the petrochemical institute
	XX.127	UNIDO	Installation of a pilot plant for food products
	XXI.33	FAO	Fishery research and development project
	XXIII.34	UNIDO	Development of the textile industry
	XXIV.44	FAO	Pre-investment survey of forestry development
	XXX.B.27	UNESCO	Industrial and technological research
	XXXII.B.15	ILO	Occupational safety
Regional	II.A.3	ECLA	Latin American industrial development as part of a concerted programme for economic and social development
	II.A.15	UNIDO	Industrial policies and programmes related to the economic integration of Central America
	II.C.5	ECLA/SIECA/ URCTAD/UNIDO	Short and medium-term prospects for exports of manufactures from certain developing countries
	II.E.9	ILO	Regional institutes of labour administration
	II.E.13	ILO	Ottawa plan for the development of human resources
	IV.A.10	UNIDO	Regional industrial development with ECLA
	IV.C.7	ECLA	Industrial planning and programming data
	V.A.3	ECLA/ILO/ UNIDO	Latin American Centre for Small-scale Industry
	V.A.11	ILO	Latin American regional adviser on small enterprise promotion
	V.A.8	ILO	Latin America - Research study on obstacles to entrepreneurial entry
	V.A.20	UNIDO	Regional and subregional centres for small-scale industry
	VI.A.10	ILO	Policies for raising living standards of low-income groups, particularly in developing countries
	VI.A.13	ILO	The brain drain
	VI.A.15	ILO	Joint ILPES - ECLA - ILO - UNICEF Course on Human Resources Planning
	VI.A.22	UNESCO	Education and training of engineers and technicians
	VI.B.40	ILO	Centro Interamericano de Investigación y Documentación sobre Formación Profesional, (CINTERFOR)
VI.B.49	ILO	Latin America - Regional vocational training adviser	
VI.J.3	ECLA	Industrial training	

THE AMERICAS (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Regional (cont'd)	VI.J.4	ILO	Up-grading national labour administrations
	VII.7	ECLA	Advisory services - mechanical industry
	VII.8	ECLA	The manufacture of machinery and equipment for the basic industries of some Latin American countries
	VII.55	UNIDO	Development of mechanical industries
	IX.3	IAEA	Regional adviser to Latin America on industrial applications of radioisotopes
	XI.4	ILO	Seminar on Dock Labour Questions for Latin American Countries
	XII.1	ECLA	Study on the motor vehicle industry in Latin America
	XIII.15	ECLA	Second Interregional Symposium on the Iron and Steel Industry
	XIII.16	ECLA	The iron and steel industry in the relatively less-developed countries
	XVI.6	ECE	Prospects for development of the chemical industry in developing countries of Africa, Asia and Latin America
	XVI.7	ECLA	Advisory services - chemical industries
	XVI.8	ECLA	Evolution of the chemical industry in Latin America
	XVI.9	ECLA	Regional report on the sodium alkalis industry
	XVI.32	UNIDO	Evaluation of Projects for new chemical industries
	XVIII.3	ECLA	Supply of fertilizers in Latin America
	XX.18	FAO/WFP	Central America (GAFICA) - Grain storage facilities and marketing
	XX.19	FAO	Central America (GAFICA) - Grades, standards, feasibility processing industries
	XX.24	FAO	Chile - FAO regional dairy training course for Spanish-speaking countries in Latin America
	XXI.4	FAO	Caribbean Region - Caribbean fishery development project
	XXI.6	FAO	Central American Region - Central American fishery development project (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama)
	XXIV.7	ECLA	Latin American meeting on forest industries
	XXIV.8	ECLA/UNIDO/ FAO	Advisory services on forest industries and pulp and paper industries
	XXIV.12	FAO	Regional Forest Industries Development Advisory Groups in Latin America, Africa and Asia
	XXV.21	UNIDO	Planning of new pulp and paper industries

THE AMERICAS (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Regional (cont'd)	XXVIII.83	WHO	Regional: Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama - expansion and improvement of hydrometeorological and hydrological services in the Central American Isthmus
	XXX.A.7	ECLA	Advisory services - technological research
	XXX.A.8	ECLA	Transfer of technology
	XXX.A.9	ECLA	Report to the Advisory Committee on the Application of Science and Technology to Development
	XXX.A.10	ECLA	Technological research in the Latin American iron and steel industry
	XXX.A.22	UNESCO	Regional meeting of directors of national science policy and research councils
	XXX.A.23	UNESCO	Research meetings, seminars and training courses in industrial research
	XXX.A.31	UNIDO	Technological research in industry
	XXX.B.56	UNIDO	The Central American Research Institute for Industry (ICAII) Phase II
	XXXII.B.6	ILO	Americas - Regional project in occupational safety and health

ASIA, FAR EAST

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Afghanistan	IV.E.8	UNIDO	Planning and co-ordination of industrial projects
	IV.E.9	UNIDO	Feasibility studies on the establishment of industrial
	IV.E.10	UNIDO	Feasibility studies for specific industries
	XX.8	FAO (FFHC)	Processing and marketing of grapes and raisins
	XXVII.31	WFP	Increasing productivity of coal mines
	XXIX.4	UNIDO	Feasibility of modernizing a match factory
	XXX.C.2	UNIDO	Introduction and implementation of the metric system
Burma	VI.B.55	ILO	Vocational training adviser
	XXII.3	FAO	Tobacco blending and processing
	XXX.B.43	UNIDO	Establishment of a metrology laboratory
	XXXII.B.5	ILO	Fellowships in occupational safety health during 1968
	XXXII.B.6	ILO	Occupational safety
Cambodia	IV.E.13	UNIDO	Inventories of available natural resources and utilization of production facilities
	VI.B.56	ILO	Centre pour la Formation des Cadres Techniques (CENFOCA)
	VI.E.3	UNESCO	National Hydraulics Laboratory
	VI.G.7	UNESCO	National School for Public Works, Building and Mining, Phnom Penh
	XX.16	FAO	Dairy industry development
	XXII.12	FAO	Rubber production and processing
	XXXII.B.5	ILO	Fellowships in occupational safety and health during 1968
Ceylon	II.E.6	ILO	Industrial relations procedures and social institutions-experts
	III.A.3	IBRD/IDA	\$4 million loan to the Development Finance Corporation of Ceylon (DFCC)
	VI.B.57	ILO	Vocational training adviser
	VI.G.8	UNESCO	Ceylon College of Technology
	VI.I.4	ILO	Management Development and Productivity Centre, Colombo
	XIII.36	UNIDO	Extraction of TiO ₂ from heavy beach sand
	XV.4	UNIDO	Operation of ceramic plant
	XVI.17	UNIDO	Improving the efficiency and quality of a plant producing caustic soda and chlorine
XX.97	UNIDO	Vegetable oil industry	

ASIA (A. FAJ) 1970

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Ceylon (cont'd)	XXI.7	FAO	Fishery vessel design, exploratory fishing and gear technology
	XXIII.15	UNIDO	Operation of textile plant
	XXIII.16	UNIDO	Survey of textile industry
	XXIV.17	FAO	Pre-investment study on forest industries development
	XXIV.18	FAO	Sawmilling
	XXXII.A.3	ILO	Technical assistance projects in the field of social security
	XXXII.B.29	WHO	Fellowships in occupational health - industrial hygiene
	XXXII.B.30	WHO	Anticipated consultant in port health
China	II.C.37	UNIDO	Ascertaining the potential for expansion of exports
	III.A.4	IBRD/IDA	\$15 million loan of August 1967 to the China Development Corporation (CDC)
	VI.B.59	ILO	National training service for industry
	VIII.9	UNIDO	Survey of the electronic industry
	X.4	UNIDO	Survey of agricultural implements
	XIII.20	ILO	Metal Industries Development Centre
	XIII.37	UNIDO	Manufacture of clinker using local magnesite and dolomite
	XVII.15	UNIDO	Qualitative and quantitative analysis of synthetic fibres
	XVII.16	UNIDO	Improvement of production techniques in plastics manufacture
	XVII.17	UNIDO	Manufacture of melamine from urea or calcium cyanamide
	XVII.18	UNIDO	Development of man-made fibre industry
	XX.26	FAO	Programme for development of livestock production on marginal land in Taiwan
	XX.27	FAO	Food Processing Institute, Hsinchu
	XXI.9	FAO	Fisheries industry
	XXIV.19	FAO	Forest and forest industries development
	XXX.B.44	UNIDO	Review of the programme of research of the Union of Industrial Research Institute
	XXXI.D.36	UNIDO	Corporate planning, technological improvement and training for managers of industrial enterprises
	XXXI.D.37	UNIDO	Solving management problems related to manufacturing process
	XXXI.D.38	UNIDO	Setting up consulting services for medium and large industries on low-cost technological improvements

ASIA, FAR EAST (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
China (cont'd)	XXXI.D.31	UNIDO	Application of new productivity and time saving tools
	XXXI.I.B.24	WHO	Occupational and industrial health advisory service project
	XXXI.I.B.29	WHO	Fellowships in occupational health awarded during 1965
Fiji (Oceania)	II.D.23	UNIDO	Establishment and operation of the Industrial Department of the Development Bank
	XXIV.21	FAO	Development of forests and forest industries
Hong Kong	VI.B.72	ILO	Vocational training adviser
India	II.E.6	ILO	Industrial relations procedures and social institutions - experts
	III.A.7	IRRD/IDA	\$25 million loan of September 1967 to the Industrial Credit and Investment Corporation of India (ICICI)
	III.B.9	IFC	Study on the fertilizer needs of India
	V.C.1	UNIDO	Group training programme on industrial estates, Hyderabad
	VI.B.73	ILO	Tool room centre, Hyderabad
	VI.B.74	ILO	National apprenticeship scheme
	VI.B.75	ILO	Advanced vocational training institute, Madras
	VI.B.76	ILO	Training and advisory services in tool, die and mould making for the plastics and other industries
	VI.D.2	UNESCO	National Institute of Foundry and Forge Technology at Ranchi, Bihar
	VI.F.3	UNESCO	Teacher training for engineering colleges, Marangal
	VI.G.17	UNESCO	Assistance to six regional engineering colleges
	VI.I.9	ILO	National Institute for Training in Industrial Engineering
	VII.30	UNIDO	Production of machine tools
	VIII.10	UNIDO	Design Centre for Electrical Measuring Instruments
	XIII.39	UNIDO	Industry investment survey in metallurgy
	XIII.40	UNIDO	Survey and utilization of the titanium products industry
	XIII.41	UNIDO	Steel foundry operation
	XX.37	FAO	Dairy industry development
	XX.38	FAO	Farm and community grain storage development
	XX.39	FAO	Poultry industry, establishment of five hatcheries
XXI.17	FAO	Free-investment survey of fishing harbours	
XXI.18	FAO	Fisheries training institute, Bombay	

ASIA, FAR EAST (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
India (cont'd)	XXII.7	FAO	Central Sheep and Wool Research Institute, Rajasthan
	XXII.8	FAO	Sheep and wool development in eight states
	XXII.9	FAO (FFHC)	Equipment for the conversion of fallen animal carcasses into poultry and cattle feed
	XXIV.26	FAO	Pre-investment study of forest resources
	XXIV.27	FAO	Establishment of four logging training centres
	XXVI.15	UNIDO	Dyeing and finishing of leather
	XXVI.16	UNIDO	Investigations in the field of polymers as applied to the leather industry
	XXVI.17	UNIDO	Footwear machinery and equipment
	XXVI.18	UNIDO	Development of chrome tanning processes for village tanneries
	XXX.B.31	UNESCO	Power Engineering Research Organization, Dhopal and Bangalore
	XXX.B.32	UNESCO	Central Scientific Instruments Organization, (CSIO), New Delhi
	XXX.B.33	UNESCO	Mechanical Engineering Research and Development Organization, Durgapur
	XXX.B.34	UNESCO	Refining and Petrochemical Division, Indian Institute of Petroleum, Dehra Dun
	XXXI.D.41	UNIDO	Training programme for marketing and export promotion of industrial goods
Indonesia	XXXII.B.5	ILO	Fellowships - mines inspection
	XXXII.B.9	ILO	Further development of the labour institutes
	I.C.9	UNIDO	Increasing productivity in the industrial sector
	IV.E.22	UNIDO	Preparation of pre-investment studies for state enterprises
	IV.E.23	UNIDO	Industrial classification survey and programming data
	VI.B.77	ILO	Training for industry, Bandung and Djakarta
	VII.31	UNIDO	Maintenance and inventory system for spare parts
	VII.37	UNIDO	Rehabilitation of mechanical workshops
	XIII.42	UNIDO	Installation and initial operation of a cold steel wire drawing mill
	XIII.43	UNIDO	Use and maintenance of steel plant equipment
XVII.19	UNIDO	Rubber production techniques	
XVIII.16	UNIDO	Problems of superphosphate plant operation	

Africa (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Regional (cont'd)	I.B.6	ECA	Statistical yearbook for Africa
	I.B.7	ECA	African Trade Statistics
	II.C.1	ECA	Research and studies on Africa's exports to Asia, North America and Western Europe
	II.C.2	ECA	Studies on problems of African exports
	II.D.2	ECA	Study on the mobilization of domestic savings
	II.D.3	ECA	Establishment of an association of the central banks
	II.D.33	UNIDO	Formulation of credit strategy of Development Bank, Industrial development
	II.E.9	ILO	Regional Institutes of Labour Administration
	II.F.1	ECA	Studies on East and West African economic integration
	II.F.2	ECA	Studies on regional development
	II.F.3	ECA	Industrial development in West Africa: An integrated analysis
	II.F.4	ECA	Inter-industry balance studies for North and Central Africa
	II.F.5	ECA	Revision of the East African harmonization study
	IV.E.1	ECA	Second session of the Conference of African Planners
	V.A.1	ECA	West African Centre for Small-scale Industry
	V.A.2	ECA	Establishment of a small-scale industry advisory centre in the East African subregion
	V.A.9	ILO	African regional adviser on small enterprise promotion
	V.A.20	UNIDO	Regional and subregional centres for small-scale industry
	V.B.2	ECA	Small-scale Industries exhibition
	VI.A.1	ECA	Survey on manpower in the field of energy
	VI.A.2	ECA	Report on a reconnaissance survey of education, training, manpower, resources and needs for the mineral industry and geoscience in fifteen African countries
	VI.A.3	ECA	Study on the identification and assessment of middle and high-level manpower and training requirements in Africa
	VI.A.4	ECA	Inter-agency survey on manpower in the field of water resources
	VI.A.5	ECA	Regional Meeting on Youth Employment and National Development
	VI.A.6	ECA	Working Party on Manpower and Training

ASUA/FAR EAST (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Indonesia (cont'd)	XX.40	FAO	Rice processing
	XX.84	IAEA	The use of radiation for food preservation - technical advice
	XXI.19	FAO	Marine fishery development
	XXII.10	FAO	Fibre processing (coconut husks)
	XXII.11	FAO	Block rubber processing
	XXIII.21	UNIDO	Production problems and quality control of textile industry
	XXIII.22	UNIDO	Improving the management, production and control of spinning mills
	XXV.9	UNIDO	Improving the organization and management of state-owned paper mills
	XXIX.5	UNIDO	Design, production quality control and marketing of straw hats
	XXX.B.46	UNIDO	Integration and co-ordination of industrial research
XXXI.D.34	UNIDO	Industrial Consultation Workshop (Management Improvement Clinic)	
Iran	II.D.7	UNIDO	Mission to Iran
	II.D.18	UNIDO	Workshops on financial planning for industrial enterprises
	II.D.24	UNIDO	Identification of sources of finance for specific industrial projects
	III.A.8	IBRD/IDA	\$25 million loan of May 1966 to the Industrial and Mining Development Bank of Iran (IMDBI)
	IV.A.8	UNIDO	Industrial sector programming
	IV.D.14	UNIDO	Evaluating programmes of the industrial sector
	IV.E.24	UNIDO	Decision-making system for industrial projects
	V.C.8	UNIDO	Establishment of an industrial estate, Ahwaz
	VI.B.78	ILO	Vocational training organization and planning
	VI.B.125	UNESCO	Functional literacy, instruction of industrial workers
	VI.H.1	ECAFE	Training in petroleum development, NIOC
	VI.H.15	UNIDO	Organizing in-plant training programmes
	VI.I.10	ILO	Management development and supervisory training, Teheran
	VII.33	UNIDO	Selection of industries for development planning
	VIII.11	UNIDO	Development of the electronics industry

ASIA AND PAST (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Iran (cont'd)	XIII.44	UNIDO	Development of non-ferrous metals industries
	XIII.45	UNIDO	Economic evaluation of an aluminium reduction plant
	XVI.22	UNIDO	Development of pharmaceutical industry
	XVII.20	UNIDO	Development of dyestuffs industry
	XIX.4	UNIDO	Feasibilities of manufacturing phosphorous-based pesticides
	XX.41	FAO	Marketing assistance for food processing industries
	XX.42	FAO	Dairy industry development
	XX.105	UNIDO	Long-range programme for the food processing industries
	XX.106	UNIDO	Food industry production problems
	XXVI.5	FAO	Hides, skins and leather development
	XXX.B.47	UNIDO	Increased Efficiency of Industrial Research Institute and Standards Organization
	XXX.C.7	UNIDO	Planning and execution of a programme of standardization
	XXX.C.8	UNIDO	Preparation and implementation of national standards
	XXXI.A.4	UNIDO	Research Centre for Industrial and Trade Development
XXXII.A.3	ILO	Technical assistance projects in the field of social security, initiated in 1968	
Japan	VI.H.14	UNIDO	In-plant group training programme - mechanical industries
	XXX.A.12	UNESCO	Case studies of technological development
	XXXII.B.29	WHO	Fellowships in occupational health awarded during 1968
Korea (Republic of)	III.A.10	IBRD/IDA	\$5 million loan of February 1968 to the Korea Development Finance Corporation (KDFC), made in conjunction with an IFC equity commitment of \$702,000
	III.B.3	IFC	Republic of Korea
	V.A.29	UNIDO	Location of small-scale industry
	V.D.1	ILO	Extension Services Department in the Medium Industry Bank
	VI.B.83	ILO	Central vocational training institute
	VI.C.2	UNESCO	Fine Instruments Centre, Seoul
	XXI.21	FAO	Deep Sea Fishing Training Centre, Pusan
	XXIV.29	FAO	Forestry survey and development
	XXXII.B.5	ILO	Fellowships in occupational safety and health during 1968
	XXXII.B.10	ILO	Industrial hygiene and safety
	XXXII.B.29	WHO	Fellowships in occupational health awarded during 1968

ASIA FAR EAST (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Laos	V.A.30	UNIDO	Development of small-scale industry
	V.A.31	UNIDO	Development of small-scale industry
	VI.B.85	ILO	Vocational training in plantations
	XXIX.8	UNIDO	Match factory production methods
Malaysia	II.D.25	UNIDO	Adviser to the Economic Development Board
	II.D.26	UNIDO	Promotion of industrial investment
	III.B.4	ILO	Malaysia
	IV.C.16	UNIDO	Project identification, formulation and development
	IV.E.28	UNIDO	Industrial marketing and feasibility studies
	IV.E.29	UNIDO	Economic research and project evaluation
	IV.E.30	UNIDO	Feasibility studies of industrial projects
	V.A.32	UNIDO	Setting up a handicraft centre
	VI.B.88	ILO	Industrial Training Institute, Kuala Lumpur
	VI.B.89	ILO	Vocational training adviser
	VI.B.90	ILO	Specialists Trade Centre
	VI.B.129	WFP	Training for industrial and commercial employment
	VI.E.8	UNESCO	Ipoh Polytechnic
	VI.G.20	UNESCO	Faculty of Engineering, University of Malaya, Kuala Lumpur
	XX.56	FAO	Food Technology Research and Development Centre
	XXIII.24	UNIDO	Textile marketing policy
	XXIV.31	FAO	Forest industries development
	XXIV.32	FAO	Pilot plantations for quick-growing, industrial tree species
	XXIV.33	FAO	Sawmill operations and training
	XXVI.21	UNIDO	Operation of leather tannery
	XXVI.22	UNIDO	Improvement of leather products industries
	XXVI.23	UNIDO	Improvement of leather products industries
	XXVI.25	UNIDO	Leather tanning quality improvement
XXX.B.27	UNESCO	Industrial and technological research	
XXXI.A.7	UNIDO	Directing the Industrial Service Centre	
XXXII.B.5	ILO	Fellowships in occupational safety and health during 1968	

ASIA, FAR EAST (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Mongolia	VI.E.5	UNESCO	Polytechnic Institute, Ulan-Bator
	XXVI.24	UNIDO	Improving technological processes for leather
	XXIX.10	UNIDO	Production of packaging material
Nepal	IV.E.33	UNIDO	Evaluation of surveys in various industrial fields
	VI.B.94	ILO	Vocational training adviser
	XIV.34	UNIDO	Survey for building and construction materials
	XXIII.27	UNIDO	Feasibility studies of cotton textile production
	XXIV.34	FAO	Survey and demonstration for management and development of the Trisuli watershed
	XXIV.35	FAO	Forest management and utilization
	XXIV.50	UNIDO	Industrial feasibility survey of wood products
	XXVI.B.7	UNIDO	Industrial legislation
New Caledonia (Oceania)	XXVII.B.18	WHO	Research activities - Health and safety problems concerning work and working conditions
	VI.B.95	ILO	Vocational training of mechanics (marine diesel engines)
Pakistan	II.D.18	UNIDO	Workshops on financial planning for industrial enterprises
	II.D.29	UNIDO	Industrial credit and investment expansion of chemical manufacturing industries
	II.D.30	UNIDO	Technical and financial aspects of proposed projects
	II.E.6	ILO	Industrial relations procedures and social institutions - experts
	III.A.11	IBRD/IDA	\$35 million loan of August 1967 to the Pakistan Industrial Credit and Investment Corporation (PICIC)
	IV.D.19	UNIDO	Review of industrial policy and appraisal of industrial development programmes
	VI.E.96	ILO	Manpower planning, apprenticeship unit
	VI.B.97	ILO	Instructor training institute, Hyderabad
	VI.B.98	ILO	Marine Diesel Training Centre, Narayanganj
	VI.F.14	ILO	Management development and industrial training scheme
	XIII.51	UNIDO	Evaluating iron and steel project proposals
	XVIII.19	UNIDO	Pre-investment studies for the promotion of the fertilizer and petrochemical industries
	XX.64	FAO	Dairy industry, plant management
XX.75	FAO (FFHC)	Development of date and date products processing industry	

ASIA/FAR EAST (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Pakistan (cont'd)	XXI.28	FAO	Survey for the development of fisheries in East Pakistan
	XXII.12	FAO	Rubber production and processing
	XXIV.37	FAO	National forestry research and training programme
	XXIV.38	FAO	Development of an East Pakistan Forest Research Institute, Chittagong
Papua and New Guinea (Oceania)	XIV.35	UNIDO	Production of building and construction materials
	XXIII.28	UNIDO	Development of a clothing and textile industry
Philippines	IV.A.9	UNIDO	Establishing a working system for market studies
	IV.D.21	UNIDO	Preparation of investments priorities plans
	IV.D.22	UNIDO	Implementing the Investment Incentives Act
	V.C.14	UNIDO	Evaluation of specific investment proposals related to industrial estate project
	VI.B.101	ILO	Vocational training adviser
	VII.38	UNIDO	Evaluation of engineering projects
	VII.39	UNIDO	Steel industry surveys
	XVI.26	UNIDO	Research in industrial microbiology
	XX.66	FAO	Applied Research Institute for Products of Animal Origin (dairy industry development)
	XX.67	FAO	Processing of rice and maize
	XXI.30	FAO	Deep sea fishing development
	XXXII.B.19	WHO	National Seminar on Urban Health Administration, Manila
	XXXII.6.29	WHO	Fellowships in occupational health awarded during 1968
	Samoa	XX.70	FAO
Singapore	II.A.11	UNIDO	Review of methodology for evaluation of new industrial projects
	II.C.38	UNIDO	Establishment of an export promotion centre
	II.D.31	UNIDO	Operation of Economic Development Board
	V.B.9	ILO	Light Industries Service Unit
	VI.B.104	ILO	Technical teachers education and vocational training
	VI.I.25	UNESCO	Training of technical teachers
	VII.41	UNIDO	Manufacture of padlocks and other building hardware
	VII.42	UNIDO	Foundry demonstration and service unit
	VII.43	UNIDO	Establishment of bicycle-manufacturing factory

ASIA/FAR EAST (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>	
Singapore (cont'd)	VII.44	UNIDO	Improvement of metal products design	
	VII.45	UNIDO	Manufacture of building hardware	
	XVII.24	UNIDO	Improvement of plastic products design	
	XXIV.51	UNIDO	Improvement of wooden furniture product design	
	XXIV.52	UNIDO	Modernization and expansion of woodworking establishments	
	XXVI.26	UNIDO	Modernization and expansion of fancy leather products industries	
	XXIX.11	UNIDO	Modernization and expansion of printing establishments	
	XXIX.12	UNIDO	Control on industrial effluents and trade waste discharges	
	XXX.B.52	UNIDO	Industrial research facilities and their improvement	
	XXXI.B.8	UNIDO	Legislation on fire safety standards	
	XXXII.B.30	WHO	Consultants on occupational health and safety 1968	
	Thailand	V.A.40	UNIDO	Small-scale industries and handicrafts marketing
		V.B.10	ILO	Small Industries Service Institute
V.C.16		UNIDO	Feasibility of establishing an industrial estate	
VI.B.109		ILO	Vocational training adviser	
VI.F.8		UNESCO	Training of technical teachers	
VI.I.19		ILO	Management consultancy training, Bangkok	
IX.6		IAEA	Industrial radiography	
XX.84		IAEA	The use of radiation for food preservation - technical advice	
XXII.14		FAO	Rubber research and development in South Thailand	
XXX.A.30		UNIDO	Analysis and appraisal of applied scientific research	
XXX.B.54		UNIDO	Technological Research Institute, Bangkok	
XXX.C.10		UNIDO	Establishment and implementation of industrial standards	
XXXII.B.5		ILO	Fellowships in occupational health and safety during 1968	
Viet-Nam (Republic of)	V.C.20	UNIDO	Development of industrial estates	
	VI.B.119	ILO	Vocational training organization and planning, reorganization of training centres	
	VI.I.14	UNESCO	National Technical Centre, Phu-Tho (Saigon)	
	XXI.34	FAO	Off-shore fishery development	

ASIA FAR EAST (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Regional	I.A.5	ECAFE	Asian Industrial Development Council, third session
	I.A.6	ECAFE	Committee on Industry and Natural Resources, twentieth session
	I.A.7	ECAFE	Asian Industrial Development Council (AIDC) Advisory Group (second session)
	I.b.8	ECAFE	Electric power development and planning: dissemination of information - annual review
	I.C.1	ECAFE	Electric power development and planning - studies of technical developments
	II.C.3	ECAFE	Export promotion studies
	II.C.30	UNIDO	Joint exploratory missions regarding promotion of export oriented industries
	II.E.3	ILO	Industrial relations procedures and social institutions - Labour-Management Relations Series
	II.E.5	ILO	Industrial relations procedures and social institutions - technical co-operation labour field
	II.E.10	ILO	Trade union research and documentation services
	II.E.14	ILO	Asian manpower plan
	II.E.16	ILO	Management development and personnel policies and practices
	II.F.6	ECAFE	Electric power development and planning
	II.F.7	ECAFE	Long-term perspective study for industrialization and regional co-operation in the ECAFE developing region
	II.F.8	ECAFE	UNESCO/ECAFE Ministerial Conference on the Application of Science and Technology to the Development of Asia
	IV.C.1	ECAFE	Fact-finding team on industries manufacturing agricultural machinery
	IV.C.2	ECAFE	Energy resources development - Comprehensive energy surveys; studies on long-term energy balance of the region
	IV.C.3	ECAFE	Mining Development Review - dissemination of information
	IV.C.4	ECAFE	Fact-finding team on forest-based industries
	IV.C.5	ECAFE	Fact-finding team on petrochemical industries
	IV.D.3	ILO	Regional seminars on trade union participation in social and economic planning
	IV.E.2	ECAFE	Iron and steel pre-investment feasibility studies
	V.A.10	ILO	Asian regional adviser on small enterprise promotion

ASIA FAR EAST (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Regional (cont'd)	V.R.3	ECAFE	Publication of the Small Industry Bulletin for Asia and the Far East
	VI.A.17	ILO	Courses conducted for the Asian Institute for Economic Development and Planning
	VI.A.18	ILO	Asian regional study tour on manpower planning and manpower operational services
	VI.B.48	ILO	Asia - Regional vocational training adviser
	VI.J.4	ILO	Up-grading national labour administrations
	VII.54	UNIDO	Regional Industrial adviser with ECAFE
	VIII.3	ECAFE	Development of electrical manufacturing industries
	IX.2	IAEA	Regional adviser to Asia and the Far East on industrial applications of radioisotopes
	XI.6	ILO	Seminar on Maritime Training for Asian Countries
	XI.7	ILO	Asia regional - Participation in a port survey team of ECAFE
	XIV.8	ECAFE	Seminar on Industrialization of Housing
	XVI.6	ECE	Prospects for development of the chemical industry in developing countries of Africa, Asia and Latin America
	XVII.2	ECAFE	Training in petrochemical industries
	XVIII.2	ECAFE	Sources of mineral raw materials for the fertilizer industry in Asia and the Far East
	XX.128	ECAFE	Regional Industrial adviser with ECAFE
	XXIV.12	FAO	Regional Forest Industries Development Advisory Groups in Latin America, Africa and Asia
	XXVII.5	ECAFE	Committee for Co-ordination of Joint Prospecting for Mineral Resources in Asian Offshore Areas (CCOP)
	XXVII.6	ECAFE	Working Party of Senior Geologists
	XXVII.7	ECAFE	Sub-committee on Mineral Resources Development
	XXVIII.9	ECAFE	Sub-committee on Energy Resources and Electric Power
	XXVIII.10	ECAFE	Electric power development and planning - dissemination of information
	XXVIII.11	ECAFE	Management training in electric power development and planning
	XXX.A.3	ECAFE	UNESCO/ECAFE Ministerial Conference on the Application of Science and Technology to the Development of Asia
	XXX.A.4	ECAFE	ECAFE/UNACAST Regional Group for Asia
	XXX.A.15	UNESCO	Conference on the Application of Science and Technology to the Development of Asia

ASIA, FAR EAST (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Notes</u>
Regional (cont'd)	XXX.A.23	UNESCO	Research meetings, seminars and training courses in industrial research.
	XXX.B.4	ECAFE	Coherent research and development regional institute in the ECAFE region.
	XXX.B.28	UNESCO	Multidisciplinary research facilities in Asia.
	XXX.B.55	UNIDO	Regional adviser on industrial research attached to ECAFE.
	XXX.C.11	UNIDO	Regional adviser on industrial standardization attached to ECAFE.
	XXXII.B.7	ILO	Asia regional project - Occupational safety and health.

EUROPE

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Italy	VI.1.7	ILO	Management training centre for engineers and economists
	VII.22	UNIDO	Fellowships in hydraulics
	VII.23	UNIDO	Fellowships in mechanical engineering
	VIII.8	UNIDO	Instruments design
	XIII.35	UNIDO	Automation of one dressing
	XVII.14	UNIDO	Production of unsaturated polyester resins
	XXIV.47	UNIDO	Use of modern contact glue in the manufacture of furniture
	XXIV.48	UNIDO	Improvement of design and production in the furniture industry
	XXV.8	UNIDO	Coloured coatings for chromo paper and board
	XXX.B.42	UNIDO	Establishment of a packing media research and experimental institute
Cyprus	XXXI.3.23	WHO	Central Institute of Public Health, Sofia
	II.D.22	UNIDO	Industrial development policy
	IV.D.8	UNIDO	Programme evaluation
	VI.B.64	ILO	Vocational training and management development centre, Nicosia
	VI.F.1	UNESCO	Higher Technical Institute, Nicosia
	XIV.31	UNIDO	Establishing an asbestos pipe manufacturing plant
	XX.30	FAO	Livestock slaughtering facilities and marketing
	Czechoslovakia	VI.H.10	UNIDO
XXXII.B.29		WHO	Fellowships in occupational health awarded during 1968
Denmark	VI.H.9	UNIDO	In-plant training programme - cement industry
Finland	XXXII.B.29	WHO	Fellowships in occupational health awarded during 1968
Greece	III.A.6	IBRD/IDA	\$12.5 million loan of March 1968 to the National Investment Bank for Industrial Development (NIBID)
	V.B.5	ILO	Small Industry Development Service
	VI.B.70	ILO	Training and further training of instructors and supervisors
	VI.P.71	ILO	Vocational training of instructors - pilot centre of Moschato
	VI.F.2	UNESCO	Training of technical teachers
XX.36	FAO	Fruit and vegetable grading	

AFRICA (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Regional (cont'd)	VI.A.1	ECA	Training courses for African manpower planners and training programmers
	VI.A.8	ECA	Study on scientific manpower requirements and educational development
	VI.A.14	ILO	ICA Integrated Training Course for African Manpower Planners and Administrators of National Training Programmes
	VI.A.22	UNESCO	Education and training of engineers and technicians
	VI.B.1	ECA	Regional centres for training in photogrammetry, photo-interpretation and airborne surveys
	VI.B.2	ECA	Common Centre(s) for specialized services in surveying and mapping
	VI.B.46	ILO	Africa, English-speaking - Regional vocational training adviser
	VI.B.47	ILO	Africa, French-speaking - Regional vocational training adviser
	VI.E.2	UNESCO	Regional Seminar on the Training of Higher and Middle-level Technical Personnel in Africa within the Framework of National Education Systems
	VI.I.1	ECA	Seminar on the management of public enterprises
	VI.J.1	ECA	Training courses in foreign trade and commercial policy
	VI.J.2	ECA	Manpower and training courses and seminars
	VI.J.4	ILO	Up-grading national labour administrations
	VI.J.5	ILO	Other training of staff for labour administrations
	VII.1	ECA	Mechanical engineering industries - including electrical machinery and transport equipment
	VII.2	ECA	Central Africa - "Les Industries mécaniques et électriques dans la sous-région d'Afrique Centrale"
	VIII.2	ECA	North Africa - Prospects for the Establishment of an Integrated Electronics Industry in the North African subregion
	XIII.1	ECA	Studies on iron and steel
	XIII.2	ECA	Non-ferrous metals, including aluminium
	XIV.1	ECA	Construction and building materials industries
	XV.1	ECA	Ceramics, including glass and earthenware
	XVI.1	ECA	Chemicals and pharmaceuticals
	XVI.6	ECE	Prospects for development of the chemical industry in developing countries of Africa, Asia and Latin America

EUROPE (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Greece (cont'd)	XXXII.B.29	WHO	Fellowships in occupational health awarded during 1968
Hungary	VI.I.8	ILO	National management development centre, Budapest
	VII.29	UNIDO	Fellowships in various engineering fields
Iceland	XVI.21	UNIDO	Report on the manufacture of marine salts
	XXI.36	FAO	Preservation of fish and seafoods by irradiation in Iceland
Italy	XXXII.B.29	WHO	Fellowships in occupational health awarded during 1968
Malta	VI.G.21	UNESCO	Malta Polytechnic Institute
	VII.37	UNIDO	Manufacture of industrial components and identification of potential assembly industries
	XXXII.A.3	ILO	Technical assistance projects in the field of social security, initiated in 1968
Poland	VI.H.13	UNIDO	In-plant group training programme - textile industry
	XVI.27	UNIDO	Development of pharmaceutical industry
	XVI.28	UNIDO	Fellowships in chemical industries
	XVI.29	UNIDO	Fellowships in chemical industries
	XX.68	FAO	Research and extension services for food production, processing and utilization
	XXXII.B.29	WHO	Fellowships in occupational health awarded during 1968
Romania	IV.D.23	UNIDO	Promotion of certain projects under the SIS Programme
	VI.G.25	UNESCO	Polytechnic Institute, Bucharest
	VI.I.15	ILO	Management Development Centre, Bucharest
	VII.40	UNIDO	Introduction of welding techniques and equipment
	XIII.52	UNIDO	Fellowships in metallurgy
	XIV.36	UNIDO	Application of modern technology in the construction industry
	XXXII.B.5	ILO	Fellowships in occupational safety and health during 1968
Spain	VI.G.26	UNESCO	Higher Mining Engineering School, Oviedo
	XXII.30	UNIDO	Development of the textile industry
	XXVI.27	UNIDO	Development of footwear industries

Table (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Saudi	VI.P.11	UNIDO	In-plant group training programme - electrical industries
Turkey	II.D.18	UNIDO	Workshops on financial planning for industrial enterprises
	II.E.6	ILO	Industrial relations procedures and social institutions - experts
	V.C.1	UNIDO	Small industries development programme and industrial estate, Gaziantep
	VI.B.112	ILO	Vocational training in undertakings
	VI.G.30	UNESCO	Faculty of Engineering, Middle East Technical University, Ankara
	VI.H.16	UNIDO	In-plant training centre for engineers, Kirikkale
	VI.I.22	ILO	Establishment of the Management Development Centre
	VII.48	UNIDO	Gear manufacturing, training and management
	VII.49	UNIDO	Chemical and petrochemical engineering, gear manufacturing, forging and management (training)
	XIII.55	UNIDO	Establishment of a forging plant
	XIII.56	UNIDO	Survey of iron and steel industry and improvement of operations
	XIII.57	UNIDO	Establishment of alumina and aluminium plant
	XIII.58	UNIDO	Installation of a barite ore grinding mill
	XIV.39	UNIDO	Cement granulating plant operations
	XIV.40	UNIDO	Cement production using slags from iron and steel factories
	XVI.33	WFP	Expansion of nitrogen industry
	XVII.25	UNIDO	Development of petrochemical engineering
	XX.78	FAO	Research and training centres for the production, processing and marketing of fruit and vegetables
	XX.79	FAO/WHO/ UNICEF	Protein-rich food industry development
	XX.80	FAO	Dairy industry development
	XXIV.43	FAO	Forestry and forest industries development
	XXVI.10	FAO	Hides, skins and leather industry development
	XXVI.11	FAO	Central Institute for Hides, Skins and Leather
	XXVII.32	WFP	Mineral prospection and exploration
	XXVII.33	WFP	Lignite mines development programme
	XXVIII.11	UNIDO	Conducting agglomeration and briquetting pilot plant trials

UNEP (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>	
Turkey (cont'd)	XXIII.25	ILO	Fellowships in cooperation of safety and health services	
	XXXII.B.13	ILO	Occupational safety and health centres, Ankara	
USSR	VI.H.12	UNEP	In-plant group training programme - iron and steel	
Yugoslavia	III.A.13	IBRD/IDA	\$10.5 million loan of July 1967 to the Yugoslav Investment Bank	
	V.C.21	UNIDO	Fellowships in small-scale industries and industrial estates	
	XVI.31	UNIDO	Fellowships in chemical and other industries	
	XVII.27	UNIDO	Profiles of polymer production	
	XVII.28	UNIDO	Hydrotreatment of lubricating oils; improvement of the octane number of gasoline and production and quality control of petrochemicals	
	XXIV.53	UNIDO	Sawdust panel manufacturing	
	XXV.13	UNIDO	Production of bleached sulphate pulp paper	
	XXV.14	UNIDO	Development of process to dispose waste waters from wood pulp	
	XXV.15	UNIDO	Manufacture of kraft pulp paper	
	XXV.16	UNIDO	Paper coating and sizing	
	XXV.17	UNIDO	Production of neutral sulphate pulp and paper	
	XXV.18	UNIDO	Paper technology	
	XXV.19	UNIDO	Straw pulp production	
	XXV.20	UNIDO	Training chemists in analytical methods relating to celluloses and hemicelluloses	
	XXVII.29	IAEA	Radioisotope X-ray fluorescence	
	XXXII.B.29	WHO	Fellowships in occupational health awarded during 1968	
	Regional	I.A.8	ECE	Economic Survey of Europe (from 1949 to 1960) Economic Survey of Europe, part I (1961)
		I.A.9	ECE	Economic Bulletin for Europe (Vol. 11, No. 2; Vols. 12 to 20, Nos. 1)
		I.A.10	ECE	Note on structural change in the post-war European economy
I.A.11		ECE	International direct investment by private enterprises in Western Europe and North America	
I.A.12		ECE	Survey of the Recent Energy Situation in Europe	
I.A.13		ECE	The Electric Power Situation in Europe and its Future Prospects	
	I.A.14	ECE	The coal situation in Europe and its prospects	

Europe (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Regional (cont'd)	I.A.15	ECE	A fifteen-year review of investment and output in Eastern Europe and the Soviet Union
	I.R.9	ECE	Annual bulletin of Coal Statistics for Europe
	I.R.10	ECE	Electric Energy Statistics for Europe
	I.R.11	ECE	Statistics on conditions of hydraulicity in Europe
	I.R.12	ECE	Gas statistics
	I.R.13	ECE	Quarterly Bulletin of Coal Statistics for Europe
	I.C.2	ECE	Evaluation of natural gas reserves
	I.C.3	ECE	Consumption of solid fuels in the domestic sector - an economic analysis
	I.C.4	ECE	New means for the bulk transport of coal
	I.C.5	ECE	Studies of current and projected changes in demand in European countries and their implication for world trade
	II.A.1	ECE	Policies and means of promoting technical progress as a major factor of economic growth; fifth meeting of senior economic advisers
	II.A.2	ECE	Note on industrial co-operation (Economic Survey of Europe in 1967)
	II.E.12	IEO	Reports for the Second European Regional Conference
	IV.A.1	ECE	Multi-level planning and decision-making; sixth meeting of senior economic advisers
	IV.A.2	ECE	Construction and practical application of macro-economic models for purposes of economic planning (programming) and policy making; fourth meeting of senior economic advisers
	IV.D.1	ECE	Long-term planning and programming; seventh meeting of senior economic advisers
	V.C.3	UNIDO	Industrial Estates in Europe and the Middle East
	VI.B.45	IEO	Impact of technological change on the planning and organization of training
	VII.4	ECE	Engineering Industries and Industrialization
	VII.6	ECE	Requirements of European countries in the process of industrialization for engineering products
	XIII.8	ECE	Productivity in the iron and steel industry
	XIII.14	ECE	Review of the European steel market
	XIV.11	ECE	Review of the structure, activities and new developments in the building industry in ECE countries

EE RCFI (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Regional (cont'd)	XIV.12	ECE	Director of Public Authorities and Provincial Organizations related to the building industry
	XIV.13	ECE	Promotion of standardization and technical co-ordination in building
	XIV.14	ECE	Second ECE Seminar on the Building Industry
	XIV.15	ECE	Third ECE Seminar on the Building Industry
	XIV.16	ECE	Seminar on Management, Maintenance and Modernization of Housing
	XIV.17	ECE	Methods of estimating and programming the required growth of production capacity in the building industry
	XVI.5	ECE	Market trends and prospects for chemical products
	XX.83	IAEA	Regional study group meeting on food irradiation for the Balkan countries
	XXIII.3	ECE	Changes in the pattern of production, consumption and trade in textiles in Western Europe
	XXIV.4	ECE	Review of the forest products market for Europe including forest products statistics
	XXIV.6	ECE	Technical co-operation and contacts
	XXVII.12	ECE	Concentration Indices in the European Coal Industry
	XXVII.13	ECE	Consolidated Report on Technical Progress as a Means of Raising the Productivity of Labour in Underground Colliery Transport
	XXVII.17	ECE	The use of mathematical and operational research methods in the coal-mining industry
	XXVIII.22	ECE	The gas situation in Europe and its future prospects
	XXVIII.25	ECE	Hydro-electric resources in Europe and their utilization
	XXVIII.26	ECE	Hydro-electric potential of Europe's water resources
	XXVIII.27	ECE	Electricity and heat supply for large industrial complexes
	XXVIII.28	ECE	long-term planning of energy supply
	XXVIII.29	ECE	Accuracy achieved in projecting energy requirements
	XXVIII.30	ECE	Survey of the natural gas market in Europe
	XXVIII.31	ECE	Legal protection of international gas pipelines
	XXVIII.32	ECE	Transfer of electric power across European frontiers
	XXVIII.33	ECE	Economic effects of incorporating nuclear power stations in electric energy production

List of (continued)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Regional (continued)	XXX.A.5	ECE	Meeting on Scientific and Technological Co-operation
	XXX.A.6	ECE	A note on the New Delhi session of the UNCTAD and the implications for international trade, of the changes in technology and the industrial structure
	XXX.A.20	UNESCO	Preparatory meeting for the European Conference of Science Ministers
	XXXI.F.1	ECE	Promotion of industrial co-operation

MIDDLE EAST

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Abu Dhabi	II.A.5	UNESOB/ UNIDO	Exploratory mission to Abu Dhabi, Bahrain, Dubai and Qatar - Industrial policy review
	II.A.6	UNIDO	Exploratory Mission to Abu Dhabi, Bahrain, Dubai, Qatar
Bahrain	II.A.5	UNESOB/ UNIDO	Exploratory mission to Abu Dhabi, Bahrain, Dubai and Qatar - Industrial policy review
	II.A.6	UNIDO	Exploratory mission to Abu Dhabi, Bahrain, Dubai and Qatar
Dubai	II.A.5	UNESOB/ UNIDO	Exploratory mission to Abu Dhabi, Bahrain, Dubai, and Qatar - Industrial policy review
	II.A.6	UNIDO	Exploratory mission to Abu Dhabi, Bahrain, Dubai, Qatar
Iraq	II.E.6	ILO	Industrial relations procedures and social institutions - experts
	II.E.19	ILO	Wage structure and minimum wage fixing
	IV.B.1	UNESOB/ UNIDO	Advice on the administrative overhaul of the Directorate General of Industrial Planning, Ministry of Industry, Iraq
	IV.B.3	UNIDO	Technical assistance exploratory mission to Iraq
	IV.B.5	UNIDO	Industrial planning and development
	IV.E.25	UNIDO	Preparing feasibility studies for various industries
	VI.B.79	ILO	Railway training institute: training of maintenance workers
	VI.E.5	UNESCO	Technical Training Institute, Baghdad
	VI.I.11	ILO	Management Development and Supervisory Training Centre, Baghdad (Phase II)
	XX.43	FAO	Establishment of wholesale market
	XX.44	FAO	Dairy industry development
	XX.84	IAEA	The use of radiation for food preservation - technical advice
	XXX.B.35	UNESCO	Petroleum Research Institute, Baghdad
XXXII.A.3	ILO	Technical assistance projects in the field of social security initiated in 1968	
Israel	III.A.9	IBRD/ IDA	\$15 million loan of September 1967 to the Industrial Development Bank of Israel Ltd. (IDBI)
	V.B.6	ILO	Small Industry Advisory Service, Tel Aviv
	VII.34	UNIDO	Increased production of metalworking industries

MIDDLE EAST (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Israel (cont'd)	VII.35	UNIDO	Coin making equipment
	XVI.23	UNIDO	Pharmacological research
	XVIII.17	UNIDO	Fellowships in fertilizer industry
	XXIX.6	UNIDO	Training in the fields of graphic and industrial design
	XXIX.7	UNIDO	Fellowships in diamond cutting
	XXX.B.48	UNIDO	Industrial Research Centre
	XXXII.B.18	WHO	Research activities - Health and safety problems concerning work and working conditions
Jordan	VI.B.81	ILO	Industrial maintenance and foremen training
	VI.I.12	ILO	Centre of Industrial Development, Management Development Department
	XIII.46	UNIDO	Establishment and initial operation of a steel rolling mill
	XX.46	FAO	Research, demonstration and training in agricultural marketing, Amman
	XXXI.A.6	UNIDO	Centre for Industrial Development, Amman
	XXXII.A.3	ILO	Technical assistance projects in the field of social security, initiated in 1968
Kuwait	II.A.9	UNIDO	Industrial development
	VI.B.84	ILO	Vocational training of adult workers
	XXX.B.27	UNESCO	Industrial and technological research
	XXXII.B.5	ILO	Fellowships in occupational safety and health awarded during 1968
Lebanon	II.C.25	UNESCO/ UNCTAD	Short and medium-term prospects for export of manufactures from selected developing countries
	VI.B.86	ILO	Vocational training adviser
	VI.F.4	UNESCO	Training of technical teachers
	VII.36	UNIDO	Development of engineering industries
	XXXII.B.30	WHO	Consultants on occupational health and safety 1968
Qatar	II.A.5	UNESCO/ UNIDO	Exploratory mission to Abu Dhabi, Bahrain, Dubai and Qatar - Industrial policy review
	II.A.6	UNIDO	Exploratory mission to Abu Dhabi, Bahrain, Dubai, Qatar

MIDDLE EAST (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Saudi Arabia	II.C.26	UNIDO	Saudi Arabia (50) (Directorate of Petroleum)
	IV.D.24	UNIDO	Fellowship in industrial development
	IV.E.3	UNESCO/ UNIDO	Reports on industrial development in Saudi Arabia and Syria
	V.F.6	ILO	Co-operatives
	VI.B.102	ILO	Vocational training for adult workers
	VI.F.7	UNESCO	College of Engineering, Riyadh
	XX.71	FAO	Project on food quality control
	XX.72	FAO	Analysis of plans and recommendations for the proposed milling industry (grain flour and feed sites)
	XXXI.A.9	UNIDO	Industrial Studies and Development Centre, Riyadh
Southern Yemen	II.A.12	UNIDO	Formulation of industrial development policy
	XXI.32	FAO	Fishery development in the Gulf of Aden
Syria	II.E.21	ILO	Minimum wage fixing machinery
	II.E.20	ILO	Wage determination
	IV.E.3	UNESCO/ UNIDO	Reports on industrial development in Saudi Arabia and Syria
	VI.B.107	ILO	Vocational training in the metal trades including apprenticeship
	VI.G.27	UNESCO	Technological Institute, Damascus
	VI.G.28	UNESCO	Faculty of Engineering, University of Damascus (training of engineers at University of Damascus)
	VI.I.17	ILO	Management Development and Productivity Centre, Damascus
	XIII.54	UNIDO	Supervision of erection and initial operation of a steel rolling mill
	XVIII.23	UNIDO	Possibilities of further assistance to the fertilizer industry
	XVIII.24	UNIDO	Evaluation of tenders for a triple superphosphate project
	XVIII.25	UNIDO	Nitrogen fertilizer project
	XVIII.26	UNIDO	Study of fertilizer requirements and urea production
	XX.77	FAO/UNICEF	Dairy industry development
	XXVIII.76	UNIDO	Natural gas development
	XXVIII.78	WFP	Installation of generators and construction of high-tension transmission lines
	XXX.B.36	UNESCO	Industrial Testing and Research Centre, Damascus
XXXII.B.5	ILO	Fellowships in occupational safety and health during 1968	

MIDDLE EAST (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Regional	I.B.25	UNESOB/ UNIDO	Technical meeting on the classification of trade and industrial statistics and related questions
	II.A.14	UNIDO	Review of industries development policies
	II.F.13	UNIDO	Preliminary studies of policies and measures to further regional co-operation in industrial development
	IV.D.4	UNESOB	Plan Formulation and Development Perspectives in the Industrial Sectors of Selected Countries in the Middle East
	V.A.12	ILO	Middle East regional adviser on small enterprise promotion
	V.A.13	UNESOB/ UNIDO	Study on small-scale industries in selected countries in the Middle East
	V.A.14	UNIDO/ UNESOB	Expert Group Meeting on the Development of Small-scale Industries in Arab Countries of the Middle East
	V.A.20	UNIDO	Regional and subregional centres for small-scale industry
	V.C.3	UNIDO	Industrial Estates in Europe and the Middle East
	VI.B.50	ILO	Regional vocational training adviser
	VI.J.4	ILO	Up-grading national labour administrations
	XIV.23	UNESOB/ ESA/UNIDO	Study on building materials industry
	XX.51	FAO	Lebanon-Dairy industry, regional (Near East) dairy training course
	XXV.4	FAO	Pulp and paper publications
	XVIII.74	IAEA	Study of the technical and economic feasibility of energy centres for the Middle East
	XXXI.A.13	UNIDO	Regional industrial adviser attached to the economic regional commission
	XXXII.A.5	UNESOB/ ESA/UNIDO	Study on social services in industrial undertaking
	XXXII.A.6	UNESOB/ ESA/UNIDO	Study on social factors that induce or inhibit industrialization
	XXXII.B.11	ILO	Middle East regional project - occupational safety and health

Africa (cont'd)

	<u>Code</u>	<u>Agency</u>	
Regional (cont'd)	XVII.1	ECA	Directorate of Industry
	XVIII.1	AIDV	Survey of the industrial production of 15 primary regions (Africa)
	XX.1	ECA	Food industries, broadly conceived
	XX.9	FAO/WHO	Regional product, meat inspection
	XX.50	FAO	Kenya-Uganda - Regional dairy training courses for English-speaking countries in Africa
	XXI.5	FAO	Central Africa (Cameroon, the Central African Republic, the Congo (Brazzaville), Gabon) - Inland fishery project
	XXI.13	FAO	East Africa (Kenya, Uganda and the United Republic of Tanzania) Lake Victoria fisheries research
	XXIII.1	ECA	Textiles
	XXIII.2	ECA	Clothing industries
	XXIV.1	ECA	Forest product industries
	XXIV.12	FAO	Regional Forest Industries Development Advisory Groups in Latin America, Africa and Asia
	XXV.1	ECA	Pulp and Paper
	XXV.4	FAO	Pulp and paper publications
	XXVI.1	ECA	Leather and footwear industries
	XXVII.1	ECA	Meeting on mining
	XXVII.2	ECA	Mining industries
	XXVII.3	ECA	Seminar on changes in technology of mineral resources
	XXVIII.1	ECA	Study of possible high voltage interconnexions between the countries of the West African subregion
	XXVIII.2	ECA	Study of high voltage interconnexions covering Algeria, Morocco and Tunisia
	XXVIII.3	ECA	Study of co-operation in energy development
	XXVIII.4	ECA	Subregional energy meeting
	XXVIII.5	ECA	A study of co-operation in energy development between Uganda and Kenya
	XXVIII.81	WMO	Regional: Kenya, Sudan, Uganda, United Arab Republic, United Republic of Tanzania - hydrometeorological survey of the catchments of Lakes Victoria, Kioga and Albert
	XXIX.1	ECA	Miscellaneous industries
	XXX.A.1	ECA	Paper submitted to the Conference on Industry and Finance

INTERREGIONAL

<u>Code</u>	<u>Agency</u>	<u>Title</u>
I.A.17	ESA	World and regional exports analyzed by industrial origin
I.A.18	ESA	Development of methods for the comparison of value of production between countries
I.A.19	UNIDO	World Industrial Survey 1968
I.B.14	ESA	Development of internationally comparable estimates of value added and employment for countries and regions, 1963
I.B.15	ESA	Preparation of a new annual publication on international industrial statistics
I.B.16	ESA	Preparation of a new annual publication on international commodity production statistics
I.B.17	ESA	Revision of the publication Industrial Censuses and Related Enquiries
I.B.18	ESA	Recommendations for the 1973 world programme of basic industrial statistics
I.B.19	ESA	International standard commodity classification linked to ISIC
I.B.20	ESA	Preparation of a study of national practices in distributive trade statistics and formulation of international recommendations in this field
I.B.21	ESA	Organization and development of the collection and compilation of construction statistics
I.B.22	ESA	Preparation of a study on index numbers of production, prices and costs in construction activity
I.B.23	ESA	International standard industrial classifications for establishment-type and enterprise-type units
I.B.24	ESA	Revision of the publication Index Numbers of Industrial Production; preparation of a survey of country practices in this field
I.C.7	UNIDO	Sectoral monographs
II.A.4	ESA	Transfer of technology at the enterprise level
II.A.7	UNIDO	Comparative studies and analysis of country experiences in the field of industrial policies
II.A.8	UNIDO	Appropriate industrial policies and measures and their impact on the industrialization process
II.B.1	GATT	Trade problems relating to the cotton textile industry
II.B.2	UNIDO	Seminar on incentive policies for industrial development

INTERREGIONAL (continued)

<u>Code</u>	<u>Agency</u>	<u>Title</u>
II.R.3	UNIDO	Protection of infant industries in the developing countries
II.C.6	ESA	Export credits and development financing: national export credit systems
II.C.7	ESA	Export credits and export credit insurance as a means of promoting exports by developing countries
II.C.8	GATT	Trade in industrial products
II.C.9	GATT	Tariff classifications of industrial products
II.C.10	GATT	Review of import restrictions
II.C.11	GATT	Tariff concessions on industrial products of interest to developing countries
II.C.12	UNCTAD/ GATT (ITC)	Training programmes in export promotion and marketing
II.C.13	UNCTAD/ GATT (ITC)	The Market Information Service
II.C.14	UNCTAD	Tropical Timber bureaux in Europe and North America
II.C.15	UNCTAD	World supply and demand
II.C.16	UNCTAD	Analysis and review of the trade in manufactures and semi-manufactures of the developing countries
II.C.17	UNCTAD	Co-operation with the regional economic commissions in surveying the short and medium-term export prospects in the developing countries
II.C.18	UNCTAD	Co-operation with UNIDO and the UNCTAD/GATT (ITC) on projects involving the establishment of export-oriented industrial production in the developing countries and the promotion of exports from these countries
II.C.19	UNCTAD	Export policies
II.C.20	UNCTAD	Co-operation with the Customs Co-operation Council on the possibilities of reclassifying tariffs
II.C.21	UNCTAD	Tariff and non-tariff barriers
II.C.22	UNCTAD	Restrictive business practices
II.C.23	UNCTAD	The establishment of a scheme of preferences on a non-reciprocal, non-discriminatory basis in favour of the exports of manufactures and semi-manufactures of the developing countries
II.C.24	UNCTAD/GATT (ITC)	Trade Promotion Advisory Service

INTERREGIONAL (cont'd)

<u>Code</u>	<u>Agency</u>	<u>Title</u>
11.C.27	UNIDO	Repayment of credit to the capital to total exports from the developing countries
11.C.28	UNIDO	Industrial co-operation in promotion of industrial exports
11.C.29	UNIDO	Expert group meeting on the utilization of excess capacity by manufacturing for exports
11.C.31	UNIDO	Development of metalworking industries as potential export industries
11.C.32	UNIDO	Expert group meeting on metalworking as potential export industry in developing countries
11.C.33	UNIDO/ UNCTAD	Expert working group meeting on incentives for the development of industrial exports
11.C.34	UNIDO	Training course in the development of industrial exports, Zagreb, Yugoslavia
11.D.1	ESA	Studies on foreign financial assistance
11.D.5	ESA	Promotion of private foreign investment in developing countries
11.D.6	ESA	Sources of financing for developing countries
11.D.9	UNIDO	Preparation of model statutes and related basic material for the formation, adaption and operation of industrial financial institutions
11.D.10	UNIDO	Proceeding of the Athens Symposium
11.D.11	UNIDO	Promotion of industries through World Food Programme
11.D.12	UNIDO	Case studies of domestic-foreign joint ventures in the field of manufacturing
11.D.13	UNIDO	Guide on external sources of industrial financing
11.D.14	UNIDO	Basic technical material for the establishment or improvement of investment promotion centres
11.D.15	UNIDO/ UNITAR	Training programme on industrial investment promotion techniques
11.D.16	UNIDO	Investment promotion training programmes: (a) for Spanish-speaking countries (b) for French-speaking countries
11.D.17	UNIDO	Meeting of investment promotion
11.D.19	UNIDO	International industrial equity funds
11.D.34	UNITAP/ UNIDO	UNITAR/UNIDO training programme in industrial investment promotion (1968-1969)

INTERNATIONAL (continued)

<u>Code</u>	<u>Agency</u>	<u>Title</u>
II.E.1	ILO	Estimate of the quantitative relations between economic growth and employment viewed by branch of activity, occupation and level of education
II.E.2	ILO	Industrial relations, procedures and social institutions
II.E.4	ILO	Workers' education
II.E.6	ILO	Industrial relations procedures and social institutions - experts
II.E.7	ILO	Labour legislation
II.E.8	ILO	Development of the role of labour administration
II.E.11	ILO	Rights of trade union representatives and participation of workers in decisions within undertakings
II.E.15	ILO	ILO Interregional Seminar on Salaries and Wages
II.E.22	ILO	Wage planning in socialist countries with regard to developing countries
II.F.10	GATT	Expansion of trade among developing countries
II.F.11	UNCTAD	Special programme on trade expansion and economic integration among developing countries
II.F.14	UNIDO	Operational guide to regional industrial planning and supporting studies on industrial location
II.F.15	UNIDO	Interregional Seminar on Industrial Location and Regional Development
III.A.1	IBRD	Bank/IDA industrial financing 1967/68
III.A.14	IBRD/IDA	Bank/IDA infrastructure investment
III.B.1	IFC	IFC Investment Commitments 1967/68
IV.A.3	ILO	Technical assistance - manpower planning
IV.A.4	UNIDO	Survey of industrial plans and programmes
IV.A.5	UNIDO	Industrial programming manual
IV.B.4	UNIDO	Pre-sessional field investigations for the international working party on industrial programming data
IV.C.8	UNIDO	Collection and analysis of data relevant to sectoral forecasts for 1970-1980
IV.C.9	UNIDO	Projection of output of manufactured commodities for the Second Development Decade study
IV.C.10	UNIDO	UNIDO contribution to the Second Development Decade projections and policies: Long-term projections of industrial outputs, employment, exports and imports

INTERREGIONAL (cont'd)

<u>Code</u>	<u>Agency</u>	<u>Title</u>
IV.C.11	UNIDO	Comparative study on profiles and other programming data - technical studies on data-bank techniques for industrial programming
IV.C.12	UNIDO	International Working Party on Industrial Programming Data
IV.C.13	UNIDO	Structure of material inputs in manufacturing industries and inter-industry relations
IV.C.14	UNIDO	Preparation of "Profiles of Manufacturing Establishments" (ID/SIR.E/5) and other industrial programming data for general dissemination
IV.C.15	UNIDO	Situation, problems and prospects of main industrial sectors
IV.D.5	UNIDO	Sectoral planning and programming studies
IV.D.28	UNIDO	Formulation of industrial policies and programmes
IV.E.4	UNIDO	Organization for implementation and follow-up at the sectoral and project levels
IV.E.5	UNIDO	Empirical investigations of the problems encountered in the implementation of industrial projects in developing countries
IV.E.6	UNIDO	Industrial project formulation and evaluation
IV.E.7	UNIDO	Procedures for industrial project implementation programming, co-ordination and control in developing countries
V.A.4	FAO	Development of small-scale agricultural products processing industries
V.A.5	ILO	Handicrafts and village industries in development plans
V.A.6	ILO	Provision of documents and information - information papers for field staff
V.A.7	ILO	Interregional Meeting of Experts on the Role of Handicrafts in the Developing Countries
V.A.15	UNIDO	Meeting on subcontracting between large and small-scale industries
V.A.16	UNIDO	The subcontracting exchange
V.A.17	UNIDO	Questionnaire on subcontracting
V.A.18	UNIDO	Small-scale industries in centrally planned economies

INTERREGIONAL (cont'd)

<u>Code</u>	<u>Agency</u>	<u>Title</u>
V.A.19	UNIDO	Monograph on small-scale industry
V.A.21	UNIDO	Direct advisory services to Governments
V.B.12	UNIDO/ILO	Organization of industrial extension centres
V.B.14	UNIDO	Floating industrial exhibition combined with promotional services
V.C.2	UNIDO	The functional industrial estate
V.D.2	UNIDO	Studies for the Interregional Symposium on Financing of Small-scale Industries, 1969
V.E.1	UNIDO	Small-scale manufacturing, No.21; Sewing machines
V.F.1	UNIDO	Interregional Meeting of Experts on Inter-firm Co-operation for Small-scale Manufacturing Enterprises
V.F.9	UNIDO	The tool room
VI.A.9	ILO	Comparative analysis of employment problems and policies in developing countries
VI.A.11	ILO	Shift-work and employment expansion in developing countries
VI.A.12	ILO	Role of the ILO in the field of rural development
VI.A.13	ILO	The brain drain
VI.A.21	UNESCO	Advisory services to Member States for the improvement of technological and technical education
VI.A.22	UNESCO	Education and training of engineers and technicians
VI.A.23	UNESCO	Place of occupational training in education planning
VI.A.24	UNITAR	"Brain drain" - the international migration of professionals from developing to developed countries
VI.B.32	ILO	Vocational training
VI.B.33	ILO	Planning of vocational training
VI.B.34	ILO	Programming of prevocational training schemes
VI.B.35	ILO	Trends and problems of training
VI.B.36	ILO	Economic criteria for evaluating vocational training programmes
VI.B.37	ILO	Prevocational training in developing countries
VI.B.38	ILO	Vocational teacher and instructor training
VI.B.39	ILO	CIRF Publications
VI.B.41	ILO	Evaluation of industrial projects of technical co-operation
VI.B.42	ILO	Youth employment and training schemes
VI.B.43	ILO	In-plant training
VI.B.44	ILO	Planning and organization of vocational training

INTERNATIONAL (continued)

<u>Code</u>	<u>Agency</u>	<u>Description</u>
VI.F.11	ILO	International Training Centre for the Development of Vocational Education
VI.B.2.1	UNESCO	Analysis of experience in vocational training in developing countries
VI.G.1	UNESCO	Advisory Panel on Technical and Industrial Education
VI.G.2	UNESCO	International Conference on the Improvement of Teaching and Training of Engineers
VI.H.6	UNESCO	Post-graduate training courses in the engineering education field
VI.H.8	UNIDO	Training Manual
VI.H.9	UNIDO	In-plant group training programme - cement industry, Denmark
VI.H.10	UNIDO	In-plant group training programme - diesel engines, CSSR
VI.H.11	UNIDO	In-plant group training programme - electrical industries, Sweden
VI.H.12	UNIDO	In-plant group training programme - iron and steel, USSR
VI.H.13	UNIDO	In-plant group training programme - textile industry, Poland
VI.H.14	UNIDO	In-plant group training programme - mechanical industries, Japan
VI.J.5	ILO	Other training of staff for labour administration
VII.5	ECE	Bulletin of Statistics on World Trade in Engineering Products
VII.11	UNIDO	Expert Group Meeting on the Design, Manufacture and Utilization of Dies and Jigs
VII.12	UNIDO	Studies on design, manufacture and utilization of dies and jigs
VII.13	UNIDO	Field surveys on maintenance and repair in the developing countries
VII.14	UNIDO	Establishment of manufacturing of cutting tools
VII.15	UNIDO	Report on the development of the metalworking industries in the developing countries
VIII.4	ITU	Progress in the field of radio telecommunications equipment
VIII.5	UNIDO	Expert group meeting on the status of technology in the electric and electronic industries with recommendations for application to the developing countries

INTERNATIONAL

<u>Code</u>	<u>Agency</u>	<u>Title</u>
XIII.5	UNIDO	Status of technology in the electrical and electronic industries
XI.1	IAEA	Radioisotope X-Ray Fluorescence Applications
XI.2	UNIDO	Development of agricultural machinery industry in developing countries
XI.1	ILO	Productivity in ports and working conditions of dockworkers
XI.2	ILO	International Code of Practice regarding safety of fishing vessels
XI.3	ILO	Conditions of work of boatmen
XI.5	ILO	Vocational training of seafarers
XII.2	UNIDO	Expert group meeting on the establishment and development of the automotive industry in developing countries
XII.3	UNIDO	Studies on the establishment and development of the automotive industry in developing countries
XIII.5	ECE	Economic Aspects of Continuous casting of Steel
XIII.6	ECE	The world market for iron ore
XIII.7	ECE	World trade in steel and steel demand in developing countries
XIII.9	ECE	Problems relating to iron and steel scrap
XIII.10	ECE	Problems of air and water pollution arising in the iron and steel industry
XIII.11	ECE	Trends in new uses of iron and steel products
XIII.12	ECE	Study tours of the Steel Committee
XIII.13	ECE	Automation in the iron and steel industry
XIII.18	ESA	Interregional Seminar on Hydrometallurgy
XIII.19	ILO	Eighth session of the Iron and Steel Committee
XIII.23	UNIDO	Studies on the technical and economic aspects of the development of iron and steel industries in developing countries
XIII.24	UNIDO	Report of the first meeting of an expert consulting group on the aluminium industry
XIII.25	UNIDO	Second Interregional Symposium on the Iron and Steel Industry
XIII.26	UNIDO	Report of the first meeting of an expert consulting group on the copper industry

INTERNATIONAL (cont'd)

<u>Code</u>	<u>Agency</u>	<u>Description</u>
XIV.1	ECF	Study on the economic and social aspects of the building industry
XIV.10	ECF	Research on the economic and social aspects of the building industry
XIV.19	ESA	Development of the building industry in developing countries
XIV.21	ITC	Expert Group on the Development of the Building and Public Works Industries
XIV.24	UNIDO UNCIHP	Workshop on industrial and building materials measures for the development of building materials
XIV.25	UNIDO UNCIHP	Interregional Seminar on the Development of the Building Materials Industries in Developing Countries
XIV.26	UNIDO	Studies on building materials
XIV.27	UNIDO	Review and publication of papers on building materials industries
XIV.41	WMO	Application of climatology to building
XVI.10	ESA	Studies in water desalination
XVI.12	ITC	Seventh Session of the Chemical Industries Committee
XVI.13	UNIDO*	Expert Working Group on the Modernization and Mechanization of Salt Industries Based on Sea Water in Developing Countries
XVI.14	UNIDO	Studies on marine salt
XVII.5	UNIDO	Expert Group Meeting on the Development of the Plastics Industry in Developing Countries
XVII.6	UNIDO	Preparatory meeting for the Second Interregional Seminar on the Development of the Petrochemical Industries in Developing Countries (1969)
XVII.7	UNIDO	Studies on the production, consumption and trade in petrochemicals in the various regions of the world
XVII.8	UNIDO	Series of studies on petrochemicals
XVII.9	UNIDO	Publication of the petrochemicals industries series (monographs)
XVIII.4	FAO	FAO's programme and projects on fertilizers
XVIII.5	FAO	Fertilizers and pesticides industries
XVIII.6	UNIDO	Ad Hoc Expert Group Meeting from Fertilizer Deficit Countries
XVIII.7	UNIDO	Fertilizer production, technology and use (publication of Kiev seminar papers)
XVIII.8	UNIDO	Fertilizer Manual

Annex 1

<u>Code</u>	<u>Agency</u>	<u>Title</u>
XVIII.1	FAO	Action-oriented research and technical studies (publications)
XVIII.10	FAO	Reports on exchange related to fertilizers
XVIII.17	FAO	Activities in co-operation with other United Nations agencies and regional economic commissions - Studies in the fertilizer field
XIX.1	FAO	FAO Regular Programme activities
XX.3	FAO	Publications - Food processing industries
XX.4	FAO	Ablatin management
XX.5	FAO	FAO Technical Working Party on Coconut Production, Protection and Processing
XX.6	FAO	FAO/International Rice Commission Working Party on the Agricultural Engineering Aspects of Rice Production, Storage and Processing
XX.7	FAO	Meeting of FAO/WHO/UNICEF Protein Advisory Group (PAG)
XX.85	IAEA	Food irradiation technology IAEA
XX.87	UNIDO	Seminar on integrated food processing
XX.88	UNIDO	Food Industry Series (Information papers)
XX.89	UNIDO	Papers for a meeting on refrigeration techniques
XXI.1	FAO	FAO regular programme activities
XXII.1	FAO	A Handbook of Sheep Shearing
XXII.2	FAO	Studies on synthetic substitutes for jute and hard fibres
XXIII.5	ILO	Eighth session of the Textiles Committee
XXIII.7	UNIDO	Expert Group Meeting on Processing Problems and Selection of Machinery in the Woollen and Worsted Industry, with special reference to the developing countries
XXIII.8	UNIDO	Technological and Economic Aspects of Establishing Textile Industries in Developing Countries
XXIII.9	UNIDO	Report of expert group meeting on the selection of textile machinery in the cotton industry
XXIV.3	ECE	Studies of economic and technical aspects of the wood-processing industries
XXIV.5	ECE/FAO/ ILO	Increasing efficiency in wood harvesting, including mechanization
XXIV.9	FAO	Publications on Forest Industries Development

AFRICA (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Regional (cont'd)	XXX.A.2	ECA	Study on optimum technology for industrial developments in Africa
	XXX.A.24	UNESCO	Selection at the national level of priority research programmes
	XXX.A.33	WMO/ECA	Seminar on the Role of Meteorological Services in Economic Development in Africa
	XXX.B.1	ECA	Regional mineral resources development institutes
	XXX.H.2	ECA	Regional research centre - aerial surveying
	XXX.B.3	ECA	Regional institute for fuel and energy
	XXX.C.1	UNESCO	Standards, metrology and instrument centres
	XXX.A.1	ECA	Conference on Industry and Finance
	XXXI.A.12	UNIDO	Centre of Industrial Studies for the Maghreb
	XXXI.F.3	ILO	Co-operative enterprise development centres
	XXXII.C.2	ECA	Third subregional training course in aided self-help and co-operative housing
	XXXII.C.3	ECA	Training course for African building contractors in the East African subregion
	XXXII.C.4	ECA	Working group of experts from the East African subregion
	XXXII.C.5	ECA	Regional meeting on housing finance
	XXXII.C.6	ECA	Regional meeting on housing administration

INTERREGIONAL (cont'd)

<u>Code</u>	<u>Agency</u>	<u>Title</u>
XXIV.10	FAO	Wood-based panels (Committee on Wood-based Panel Products - second session)
XXIV.11	FAO	Advisory missions
XXIV.13	FAO	The use of wood in housing
XXIV.14	FAO	"War on Waste"
XXV.4	FAO	Pulp and paper publications
XXV.5	FAO	Pulp and paper
XXVI.2	FAO	Hides, Skins and Leather
XXVI.12	ILO	Tripartite Technical Meeting for the Leather and Footwear Industry
XXVII.10	ECE	Air pollution by Coking Plants
XXVII.11	ECE	Symposium on Hydraulic transport of Coal Underground and on the Surface
XXVII.14	ECE	Mechanization and Automation in Coking Plants
XXVII.15	ECE	Symposium on the Methods of Working Thick Coal Seams, Bucharest, 5 to 9 September 1966, Vol. I and II
XXVII.16	ECE	Selected Problems on the Preparation of Coals for Coking
XXVII.22	ESA	Resources of the sea
XXVII.23	ESA	Survey programme for the development of natural resources
XXVII.24	ESA	Interregional Seminar on Mineral Economics
XXVII.25	ESA	Small-scale mining within the social and economic context of developing countries
XXVII.26	ESA	Study on the relative position of certain mineral ores as foreign exchange earners
XXVII.28	IAEA	Symposium on Nuclear techniques in the Prospecting and Development of Mineral Resources
XXVII.30	ILO	Second Tripartite Technical Meeting for Mines other than Coal Mines
XXVIII.18	ECE	Design and operation of thermal power plants
XXVIII.19	ECE	Economic and technical aspects of gas storage by the various systems in current use
XXVIII.20	ECE	Economics of the conversion of distribution networks to natural gas
XXVIII.21	ECE	Economic aspects of long-distance transmission of gas by pipelines

MEMORIAL (cont'd)

<u>Code</u>	<u>Agency</u>	<u>Title</u>
XXVIII.73	ECE	The use of gas in the chemical industry
XXVIII.74	ECE	Use of natural gas in electric power stations
XXVIII.74	ECE	Use of gas for heating large housing developments
XXVIII.75	ECE	Symposium on the Use of Gas in the Chemical Industry
XXVIII.36	ECE	Utilization of electric power for large-scale production of crops and livestock
XXVIII.52	ESA	Symposium on the Development and Utilization of Oil Shale Resources
XXVIII.53	ESA	Interregional Seminar on Small-scale Power
XXVIII.54	ESA	Fourth International Conference on the Peaceful Uses of Atomic Energy
XXVIII.55	ESA	Interregional Seminar on Geothermal Energy
XXVIII.56	ESA	Study on petroleum refining in developing countries
XXVIII.57	ESA	Study on natural gas utilization for power in developing countries
XXVIII.58	ESA	Study on natural gas transport techniques
XXVIII.59	ESA	Studies in management and use of water resources
XXVIII.60	ESA	Study on development of natural gas resources
XXVIII.63	IAEA	Nuclear power production - Panel on Plutonium Utilization
XXVIII.64	IAEA	Nuclear power production - Panel on Sol-gel Processes
XXVIII.65	IAEA	Nuclear power production - Symposium on Advanced and High Temperature Gas-cooled Reactors
XXVIII.66	IAEA	Nuclear power production - Panel on Thorium Utilization
XXVIII.67	IAEA	Nuclear power production - Panel on Small and Medium-size Power Reactors
XXVIII.68	IAEA	Nuclear power production - International Working Group on Fast Reactors
XXVIII.69	IAEA	Nuclear power production - Symposium on the Economics of Nuclear Fuels
XXVIII.70	IAEA	Nuclear power production - Directory of Nuclear Reactors
XXVIII.71	IAEA	Nuclear power production - IAEA/ENEA Liaison Group on Magneto-hydrodynamic Electrical Power Generation
XXVIII.72	IAEA	Symposium on Nuclear Desalination
XXVIII.73	IAEA	Review of the new nuclear-powered energy centre concept

INTERREGIONAL (cont'd)

<u>Code</u>	<u>Agency</u>	<u>Title</u>
XXIX.A.1	IAEA	Nuclear power in the context of national science policy
XXIX.A.2	IEP	Economic aspects of nuclear power
XXIX.A.3	IAEA	Nuclear techniques in water pollution control
XXX.A.11	UNESCO	Assistance to Member States in the planning of science policy and research
XXX.A.13	UNESCO	Training of national scientific communities in developing countries and creation of a climate favourable to scientific and technological research
XXX.A.14	UNESCO	UNESCO Science Prize
XXX.A.16	UNESCO	Migration of scientific and technological personnel
XXX.A.17	UNESCO	Integration of sectoral research policies with overall national planning of science and technology
XXX.A.18	UNESCO	International glossary of science policy
XXX.A.19	UNESCO	Inventory of national scientific and technological potential
XXX.A.21	UNESCO	Possibilities for the establishment of an international science planning institute
XXX.A.25	UNESCO	Service for the exchange of information on national scientific organizations and national scientific potential
XXX.A.26	UNESCO	Survey on programmes of study and research groups dealing with science policy
XXX.A.27	UNESCO	Surveys of the scientific and technological potential of Member States
XXX.A.28	UNESCO	Use of the cost-profit analysis technique in the evaluation of projects for the application of existing know-how
XXX.A.32	UNITAR	Transfer of technology from enterprise to enterprise
XXX.B.24	UNESCO	Activities to encourage the formulation of science policy and the organization of research in the scientific and technological fields
XXX.B.25	UNESCO	Bilateral co-operation between scientific institutions
XXX.B.26	UNESCO	Documentation on engineering laboratories
XXX.B.29	UNESCO	Studies on national science policy
XXXI.A.2	UNIDO	Medium industry multiple plant franchise chains

INTERREGIONAL (contd)

<u>Date</u>	<u>Agency</u>	<u>Title</u>
XXXI.A.1	UNEP	Industrial Promotion Service
XXXI.B.2	ESA/UNIDO	Co-operation in the experts' meeting, to be organized by UNIDO on industrial patents for developing countries, in 1969
XXXI.B.3	ESA	Interregional Seminar on the Role of Government in the Development of Mineral Resources
XXXI.B.4	ESA	Interregional Seminar on Petroleum Administration in Developing Countries
XXXI.B.6	UNIDO	Information on laws and regulations affecting industry - Industrial Legislation Series
XXXI.C.1	ESA	Operational experience of water desalination plants
XXXI.C.2	UNESCO	Development of long-range plans in scientific and technical documentation - clearinghouses for key-word and descriptor lists, classification schedules, thesauri, etc.
XXXI.C.3	UNESCO	Development of long-range plans in scientific and technical documentation - publications
XXXI.C.4	UNESCO	Joint ICSU-UNESCO project on the communication of scientific information and on the feasibility of a world science information system
XXXI.C.5	UNESCO	World Directory of National Science Policy-making Bodies
XXXI.C.6	UNIDO	Industrial information publications
XXXI.C.7	UNIDO	Industrial Inquiry Service
XXXI.C.8	UNIDO	Seminar on Industrial Information
XXXI.D.1	ESA	Administrative and managerial problems of public enterprises and other instruments of economic development
XXXI.D.2	ESA	Study on the management of electricity enterprises
XXXI.D.30	UNIDO	Model forms for financial planning of industrial enterprises
XXXI.D.31	UNIDO	Financial aspects of manufacturing enterprises in the public sector
XXXI.D.32	UNIDO	Advisory Service on the Supply of Industrial Equipment to Developing Countries
XXXI.E.1	UNESCO	Assistance in the creation of the World Federation of Engineering Organizations

INTERREGIONAL (cont'd)

<u>Code</u>	<u>Agency</u>	<u>Title</u>
XXXI.F.4	ILO	Study on the role of co-operative in the industrialization of developing countries
XXXII.A.1	ESA	Social aspects of industrialization and urbanization
XXXII.A.2	ILO	International Institute for Labour Studies
XXXII.B.2	ILO	Guide to safety and health in forestry work
XXXII.B.3	ILO	Sixth session of the Joint ILO/WHO Committee on Occupational Health
XXXII.B.4	ILO	Social Security
XXXII.B.5	ILO	Fellowships - occupational safety and health during 1968
XXXII.B.16	ILO	Manual on Health and Agriculture
XXXII.B.17	ILO	Occupational Health and safety in manufacturing
XXXII.B.18	WHO	Research activities - health and safety problems concerning work and working conditions
XXXII.B.20	WHO	Training course on Occupational Health in Agriculture and Associated Industries, Dundee
XXXII.B.21	WHO/ILO	International Seminar on Occupational Health in Developing Countries, Lagos
XXXII.B.22	WHO	Pilot health centres for seafarers
XXXII.B.25	WHO/ILO	Sixth session of the Committee on Occupational Health
XXXII.B.26	WHO	Scientific Group on the Optimal Level of Physical Performance Capacity for Adults, Geneva
XXXII.B.27	WHO	Meeting to review revised 1956 WHO document * Guiding Principles in the Medical Examination of Applicants for Motor Vehicle Driving Permits
XXXII.B.28	WHO	Model Law for the official control of pesticides, Rome
XXXII.C.8	WHO	Air pollution factors
XXXII.C.9	WHO	Urban climatology
XXXII.D.1	FAO	FAO/Industry Co-operative Programme
XXXII.D.2	FAO/IBRD	FAO/IBRD Co-operative Programme and co-operation with development banks
XXXII.D.3	FAO	FAO/Indicative World Plan

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INTERNATIONAL (cont'd)

<u>Code</u>	<u>Agency</u>	<u>Title</u>
XXXII.D.4	FAO	Sixth International Summer Course on Industrialization, The Hague
XXXII.D.5	ILO	International Symposium of Ergonomics and Physical Environmental Factors
XXXII.D.6	UNESCO	Psychological and social factors influencing the career and working conditions of research workers
XXXII.D.7	WMO	Economic benefit of meteorology to industry

ANNEX II

BREAKDOWN OF PROJECTS BY AGENCIES AND FUNCTIONS



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THE AMERICAS

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Argentina	II.C.36	UNIDO	Formation of export of manufactured goods
	IV.D.6	UNIDO	Study of resource potentials for industrial development
	V.H.15	UNIDO	Small industry extension methods
	VI.B.52	ILO	Vocational training of adults
	VII.20	UNIDO	Machine tool design and production
	VII.21	UNIDO	Installation of high speed heavy machinery
	XIII.31	UNIDO	Evaluating resources of non-ferrous ore and minerals
	XIII.32	UNIDO	Steel production and rolling
	XIII.33	UNIDO	Establishment of aluminium industry
	XIII.34	UNIDO	Steel products marketing
	XVII.11	UNIDO	Control of chemical process operations using gas chromatographic techniques
	XX.12	FAO	Milk processing plant in the Viedma Valley
	XX.84	IAEA	The use of radiation for food preservation - technical advice
	XX.94	UNIDO	Food processing development
	XXI.2	FAO	Fishery development project
	XXIII.12	UNIDO	Wool technology problems of industrial research
	XXIII.13	UNIDO	Operation of textile laboratory and establishment of quality control
	XXVI.13	UNIDO	Leather processing
	XXX.B.41	UNIDO	Establishment of a laboratory of applied combustion
	XXX.C.3	UNIDO	Weights and measures legislation
Barbados	I.C.8	UNIDO	Increase of industrial productivity
	XXX.C.4	UNIDO	Elaboration of industrial standards system
	XXXII.A.3	ILO	Technical assistance projects in the field of social security, initiated in 1968
Bolivia	IV.E.12	UNIDO	Building materials pre-investment survey
	XIV.29	UNIDO	Experimental production plant for asbestos processing, Cochabamba
	XIV.30	UNIDO	Production of tiles and ceramics
	XV.3	UNIDO	Plate glass manufacture
	XVII.12	UNIDO	Evaluating tenders for the installation of a petrochemical industrial complex
	XX.13	FAO	Vegetable oil extraction plant, San Ignacio, east Bolivia

THE AMERICAS (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Brazil	II.C.4	ECLA/ UNCTAD/UNIDO	Promotion of export of manufactures from Brazil
	II.D.20	UNIDO	Corporate financial planning
	III.A.2	IBRD/IDA	\$22 million loan of January 1968 to Companhia Mineira de Alumínio (Alcominas)
	V.B.16	UNIDO	Technical and managerial assistance to small-scale industries
	V.C.4	UNIDO	Development of industrial estates
	V.C.5	UNIDO	Selecting sites for industrial parks
	VI.A.16	ILO	Joint ILPES - ILO national course in Brazil on human resources planning
	VI.B.54	ILO	Human resources development, vocational training, civil engineering and electrical trades
	VI.G.5	UNESCO	Teaching of technology, University of Brasilia
	VI.G.6	UNESCO	Technical Assistance
	X.3	UNIDO	Agricultural implements
	XVI.16	UNIDO	Solving problems related to the chemical industry
	XVII.13	UNIDO	Tetraethyl lead production
	XIX.2	FAO	Expansion of the work on pesticides at the Biological Institute of Sao Paulo
	XX.14	FAO	Tropical Centre of Food Research and Technology, Campinas
	XX.95	UNIDO	Possibilities of assistance to the food industry
	XXI.3	FAO	Fishery research and development project
	XXIII.14	UNIDO	Rehabilitation of textile mill
	XXX.A.29	UNIDO	Establishment of industrial research centre
	XXX.C.5	UNIDO	Establishment of industrial standards
	XXXI.D.35	UNIDO	Establishment and management of technical services unit
	XXXII.B.29	WHO	Fellowships in occupational health awarded during 1968
Chile	V.B.4	ILO	Department of Small Industries
	VI.B.56	ILO	National centre for the training of instructors, supervisors and highly-skilled workers (CENSIS)
	VI.C.3	WFP	Training centres for skilled labourers
	VI.G.9	UNESCO	Universidad de Concepcion - Escuela de Ingenieria, Concepcion

THE AMERICAS (cont'd)

	<u>Code</u>	<u>Agency</u>	<u>Title</u>	
Chile (cont'd)	VII.24	UNIDO	Boiler plate manufacturing industry	
	VII.25	UNIDO	Machine tool manufacture	
	VII.26	UNIDO	Managerial advice on production, programming and quality control	
	IX.4	IAEA	Industrial application of radi isotopes	
	XX.23	FAO	Institute of Food Science and Technology, Santiago	
	XX.24	FAO	FAO regional dairy training course for Spanish speaking countries in Latin America	
	XX.25	FAO	Dairy industry development	
	XX.84	IAEA	The use of radiation for food preservation - technical advice	
	XXI.8	FAO	Fisheries Development Institute	
	XXX.B.30	UNESCO	Naval Construction Training and Research Centre, Valdivia	
	Colombia	III.A.5	IBRD/IDA	\$12.45 million loan of May 1968 to be used by five Colombian development finance companies
		IV.D.7	UNIDO	Assistance in production planning
		IV.E.15	UNIDO	Evaluation, selection and execution of industrial projects
IV.E.16		UNIDO	Project evaluation and implementation	
VI.B.60		ILO	In-plant training programme	
VI.B.61		ILO	National Vocational Training Service	
VI.B.128		WFP	Feeding in vocational training centres	
VI.G.10		UNESCO	Industrial University of Santander, Bucaramanga	
VI.G.11		UNESCO	School of Engineering, National University, Bogota	
VII.27		UNIDO	Maintenance and manufacture of forging dies	
XIV.20		IAEA	Neutron moisture gauging	
XX.28		FAO	Institute for Training and Research in Agricultural Marketing, Bogota	
XX.29		FAO	Faculty of Veterinary Medicine and Animal Husbandry, National University of Bogota	
XX.84		IAEA	The use of radiation for food preservation - technical advice	
XXI.10		FAO	Marine fisheries development project	

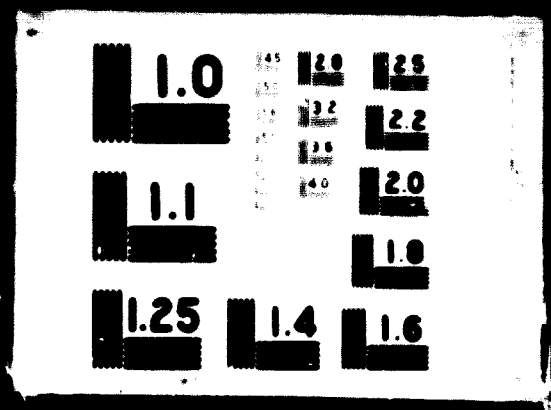
THE AMERICA (cont'd)

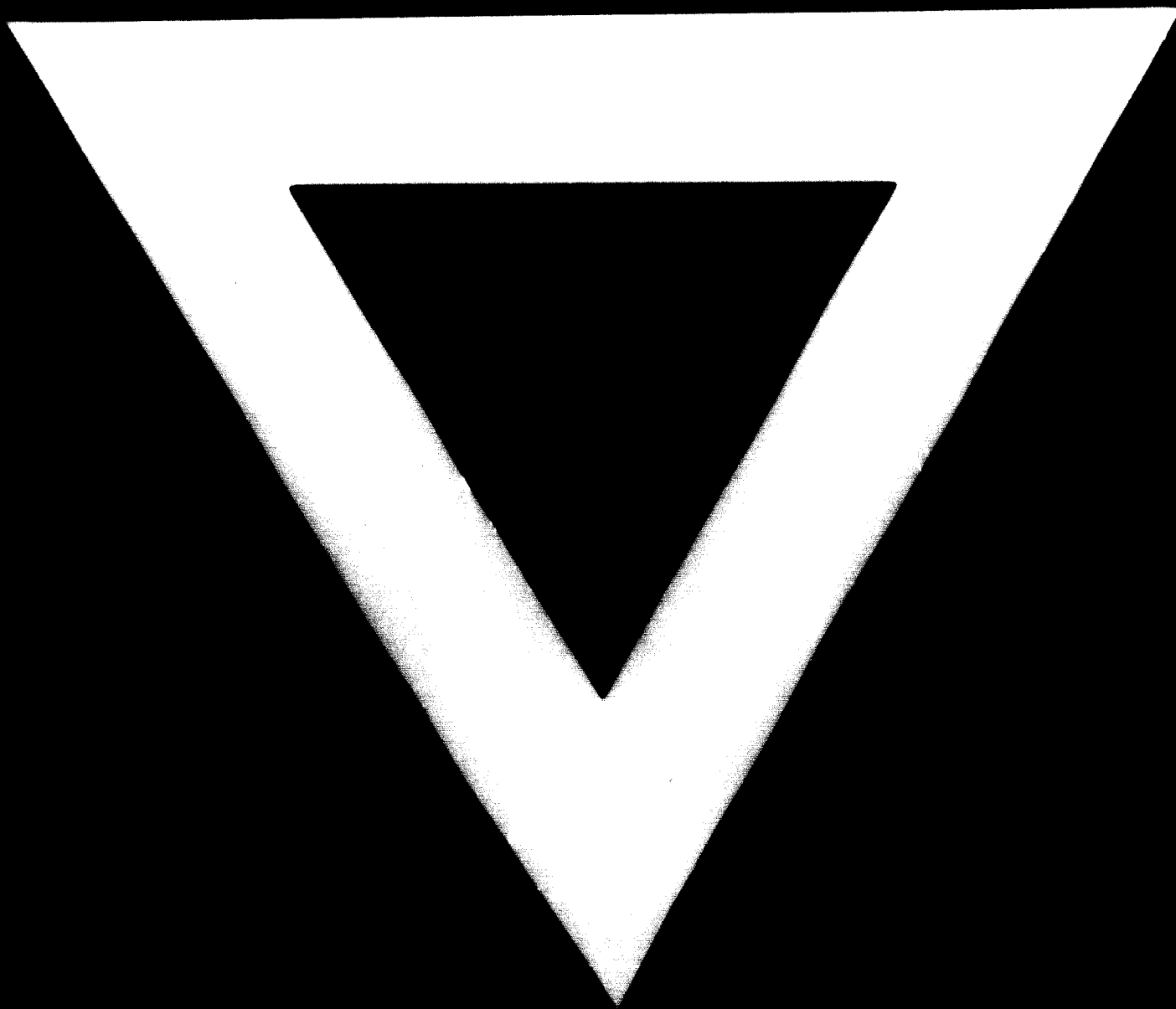
	<u>Code</u>	<u>Agency</u>	<u>Title</u>
Colombia (cont'd)	XXVIII.82	WMO	Colombian meteorological and hydrological service
	XXX.B.45	UNIDO	Institute for Technological Research, Bogota (Phase II)
	XXXII.B.29	WHO	Fellowships in occupational health awarded during 1968
Costa Rica	VI.B.63	ILO	National Institute of Apprenticeship
Cuba	VI.G.13	UNESCO	Faculty of Technology, University of Havana
	XXI.11	FAO	Marine fisheries development project
Dominica	XXII.5	FAO	Coir and copra processing industry development, Roseau
Dominican Republic	IV.D.10	UNIDO	Preparation of market studies
	V.A.26	UNIDO	Development of small and medium-scale industries
	VI.B.65	ILO	Vocational training
	VI.G.14	UNESCO	Faculty of Engineering, Madre y Maestra University, Santiago de los Caballeros
	VII.28	UNIDO	Maintenance and repair
	XI.B	ILO	Organization of work in port of Santo Domingo
	XVI.18	UNIDO	Organization of laboratory and inspection services
	XX.33	FAO	Animal production and veterinary training, Autonomous University of Santo Domingo
	XXIII.17	UNIDO	Specifications for raw materials and products in light industries
	XXIV.49	UNIDO	Evaluation of machinery and installation of a bagasse building-boards factory
Ecuador	IV.D.11	UNIDO	Preparation of an industrial development plan
	IV.D.12	UNIDO	Evaluation of industrial projects
	V.C.7	UNIDO	Planning of industrial estates
	VI.A.19	UNESCO	Technical assistance
	VI.B.66	ILO	Ecuadorian Service for Vocational Training
	VI.G.15	UNESCO	National Polytechnic School, Quito
	XVIII.14	UNIDO	Organic materials and compost fermentation for fertilizers
	XX.101	UNIDO	Processing of naranjilla fruit

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