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SMALL-SCALE INDUSTRIES

Copenhagen, Denmark

10 June to 5 July 1967

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FACILITIES FOR SMALL-SCALE INDUSTRIES

Presented by

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TECHNICAL SERVICES AND FACILITIES FOR SMALL-SCALE INDUSTRY  
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INDUSTRY AND COMMERCIAL DEVELOPMENT  
TECHNICAL SERVICES AND FACILITIES FOR SMALL-SCALE INDUSTRY

Summary

The report presents information on certain important projects relating to technical services and facilities for small-scale industries, carried out by some organizations of the United Nations family, against the background of the activities of the United Nations Development Programme (UNDP) in the field of industrial development.

1. UNDP-UNEP COOPERATION PROJECTS FOR TECHNICAL SERVICES AND FACILITIES FOR SMALL-SCALE INDUSTRY AND INDUSTRIAL DEVELOPMENT

1. UNEP (Special Fund) projects

(a) Technical services and facilities for small-scale industry

As of January 1967, twelve large projects assisted by the Special Fund sector of UNDP in twelve countries were specifically designed to promote small-scale industry through the provision of technical services and facilities.

The International Labour Organisation (ILO) serves as Executive Agency for ten of these projects: the Small Industry Service Institute of Colombo, Ceylon; the Department of Small Industries of the Servicio de Cooperación Técnica of Santiago, Chile; the Small Industry Development Service of Athens, Greece; the Training and Advisory Services in Tool, Die and mould making for the Plastic and other Industries of Coimbatore, Madras, India; the Small Industry Advisory Service of Tel Aviv, Israel; the Extension Services Department in the Medium Industry

Bank of Seoul, Republic of Korea; the National Service for Crafts and Small Industries of Chitre, Panama; the Light Industries Service Unit of Singapore; the Small Industries Service Institute of Bangkok, Thailand; and the Institute of Small Industries of Kabul, United Arab Republic.

The United Nations serves as executing agency for two projects: the establishment of an Industrial Estate at Isfah, Iran; and the Small Industries Development programme and establishment of an industrial estate at Kasbi, Uganda.

2) Management Development, Training and Productivity Centres

The Special Fund is currently providing to sixty-eight centres in twenty-four countries, with duplication in one or several of the following fields: management development, instructor training, vocational training, in-plant training, productivity development, and occupational safety. UNCTAD serves as executing agency for sixty-three of these projects, ILO for three and UNICEF for two.

Some of the management development and other centres have specific functions relating to small and micro development, especially provision of advisory services to management and technical counselling.

3) Industrial Estate and Development Centres

Five national industrial estate and development centres and one regional centre have been created in recent years with assistance from UNCTAD (Special Fund) and the United Nations Development Programme. The main functions of the centres are to formulate, evaluate industrial projects and to assist in their implementation and to advise Governments in all matters relating to industrial development. Some of these centres also have specific functions in the field of small-scale industry, including technical assistance and establishment of industrial estates.

4) Research Institutes

The Special Fund is currently providing assistance to forty-one national industrial research institutes in twenty-three countries and one regional institute. The United Nations serves as executing agency for thirteen of these projects, ILO for one, UNICEF for seventeen, and UNCTAD for eleven. Many institutes are specialized, and some are general-purpose. Some of the latter provide advisory services to small-scale industries and one of them assists in the establishment of industrial estates.

(e) The Place of Small Industry Projects in Over-all UNDP (Special Fund) Operations in the Field of Industrial Development

UNDP (Special Fund) is currently assisting 257 large pre-investment projects having a bearing on industrial development. Of these projects, 188 are specifically intended to help develop and sustain industry; a majority of these serve small industry directly or indirectly.

2. UNDP (Technical Assistance) Projects

Under the technical assistance component of UNDP, 759 projects directly or indirectly related to industrial development are included in the 1965/66 biennium. Of these, 29% are within the industrial sector, including 11 small industry projects, 75 training projects and 17 industrial research projects. Examples are given of recent United Nations operations for the provision of technical services under this programme.

I. Small Industry Development (S.I.D.)

In the period March 1966 to February 1967, 5 out of 59 approved or completed projects were concerned with the establishment of industrial estates and the provision of related services for small-scale industries.

II. Technical Assistance Projects in the Industrial Sector

Information is given on UNDP technical assistance relating to: common service facilities (projects on tool room and testing and quality control laboratories); specialized industrial estates (functional and ancillary estates); and participation of small-scale industries in joint-venture enterprises under joint production agreements, in the manufacturing of producers goods (plates, rolling machines, power presses, etc.) and in export commercial goods (tires, sewing machines, centrifugal pumps, agricultural instruments, automobile components, etc.).

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UNITED NATIONS ACTIVITIES RELATING TO TECHNICAL SERVICES AND  
FACILITIES FOR SMALL-SCALE INDUSTRIES

The promotion of small-scale industry is of concern to several organizations of the United Nations family, especially to the United Nations Industrial Development Organization (UNIDO), the International Labour Organisation (ILO) and, to some extent, to the Food and Agriculture Organization of the United Nations (FAO).

All these organizations are providing, each in its field of competence, technical assistance for the promotion of small-scale industry, both under the United Nations Development Programme (UNDP) and their regular programmes of technical assistance.

Assistance is also provided under the recently established programme of Special Industrial Areas (SIA) which is jointly administered by UNIDO and UNDP.

Research and seminars in this field are carried out by UNIDO and ILO.

The purpose of the present report is to present information on certain important projects relating to technical services and facilities for small-scale industries, carried out by one of the above-mentioned organizations. Special attention is paid to the larger projects carried out with assistance from the Special Fund sector of UNDP, and to be specifically to the provision of such services.

In view of the fact that technical services for small-scale industries are also provided, on many other occasions, by a variety of institutions assisted by UNDP (including), reference is also made to certain other projects of broader scope.

Since many projects relating to industrial development in general have a bearing on the promotion of small-scale industry, it has been thought useful to present the subject of technical services against the background of these more general activities. Brief mention is thus given of operations in different areas of industrial development carried out under both components of UNDP, that is, Special Fund and Technical Assistance. <sup>1/</sup>

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UNDP finances about three-fourths of all pre-investment and technical assistance activities carried out today by the United Nations and its related agencies.

This report has been prepared by the Small-scale Industry Section, United Nations Industrial Development Organization.



Some information is also given on UNIDO's research programme in the field of technical services and facilities.

It is not proposed, in this report, to describe the various technical co-operation programmes of the United Nations, the procedures for obtaining assistance, nor the types of projects in the field of small-scale industry which may be assisted by the United Nations. Information on these aspects will be found in a publication entitled Technical Co-operation for the Development of Small-scale Industry (Sales No.: CT.II.E.), the main types of projects described in that publication broadly cover all the technical services and facilities considered by the Vedbæk Symposium.

## I. UNDP-ASSISTED PROJECTS RELATING TO TECHNICAL SERVICES, SMALL-SCALE INDUSTRY AND INDUSTRIAL DEVELOPMENT<sup>3/</sup>

### 1. UNDP (Special Fund) Projects

#### (a) Technical Services and Facilities for Small-scale Industries

As of January 1977, twelve large projects assisted by UNDP (Special Fund) in twelve countries were specifically designed to promote small-scale industry through the provision of technical services and facilities. The International Labour Organisation serves as Executing Agency for ten of these projects and the United Nations for the two others. The twelve projects, which are at different stages of planning, establishment or operation, are as follows:

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This publication is submitted to the Inter-regional Symposium on Technical Services and Facilities for Small-scale Industries as a background document under cover of document ID/CONF. 1977/1.

<sup>3/</sup> For more details on operations relating to industrial development in general, see ID/B/3/Aud.1, a report submitted to the Industrial Development Board of UNIDO at its first session, April-May 1977.

Project costs  
(US dollar equivalent)

<u>Project by country</u>	<u>Executing Agency</u>	<u>Approved by governing council</u>	<u>Project duration (years)</u>	<u>Total</u>	<u>governing council earmarkings</u>	<u>Govt. Counterpart contrib.</u>
<u>Service Institutes</u>						
1. Ceylon: Small Industry Service Institute, Varaha	ILO	Jan 1962	5	2,659,500	942,500	1,521,000
2. Cote d'Ivoire: Department of Small Industries, Service de Cooperativisme, Abidjan	ILO	Jan 1966	5	7,655,000	2,054,000	4,597,000
3. Cote d'Ivoire: Small Industry Development Service, Abidjan	ILO	Jan 1967	5	1,796,200	626,200	900,000
4. Cote d'Ivoire: Training and Advisory Services in Textile, Hosiery and Small Tanning for the Domestic and other Industries, Abidjan	ILO	Jan 1966	5	1,909,700	364,700	1,045,000
5. Cote d'Ivoire: Small Industry Advisory Service, Abidjan	ILO	June 1965	4	1,008,000	421,000	597,000
6. Cote d'Ivoire: Small Industry Advisory Services Department in the State Industry Bank, Abidjan	ILO	June 1966	4	1,282,900	765,900	517,000
7. Cote d'Ivoire: National Directorate for Crafts and Small Industries (DINAPRI), Abidjan	ILO	June 1966	4	1,715,800	955,800	782,000
8. Singapore: Light Industries Service Unit	ILO	Jan 1963	5	1,449,100	578,100	871,000
9. Thailand: Small Industries Service Institute, Bangkok	ILO	Jan 1965	5	2,441,000	917,000	1,524,000

10. United Arab Republic Institute of Small Industries, Kubba <sup>2/</sup>	ILO	Jan 1962	4	1,298,600	600,600	0.4
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Industrial Estates

11. Iran: Industrial Estate, Ahwaz	UN	June 1963	5	1,760,500	637,900	1.1
12. Thailand: Small Indus- tries Development Programme and esta- blishment of an Industrial Estate, Bangkok	UN	Jan 1966	5	1,875,400	746,400	1.1

A request for assistance in a second phase is under consideration.

With the exception of the tool room project at Chindhy, Madras, India, which is a specialized technical facility, all the service institutes listed in the table above are aimed at identifying prospects of small industry development, carrying out feasibility and pre-investment studies and market surveys, and providing advisory services to small industrialists, including prospective entrepreneurs, for all phases of planning, creation and management of their enterprises. The major activity of all institutes is training of owners, managers and foremen, and of extension workers. Most of them have workshops for training and demonstration purposes, and, in some cases, for provision of certain service facilities to small enterprises. All institutes have an information centre with library and related facilities.

The extension adviser department of the Medium Industry Bank of the Republic of India assists the bank in its financial operations and provides managerial and technical consulting services to small entrepreneurs, including feasibility studies for projects to which financing is requested from the bank or other sources.

The Training and Advisory Centre of Chindhy, Madras, is a technical facility specialized in the design and manufacturing of moulds, dies and tools, and provision of training and counselling in this field to small-scale and medium-sized enterprises.

The purpose of the two industrial estate projects is to stimulate indigenous entrepreneurship, and to provide assistance to small industrialists as part of an over-all

programme of development of small-scale industry. Technical and managerial assistance and common service facilities including, initially, a testing laboratory and a mechanical workshop, tool room and information centre, will be set up on each estate.

More detailed information on these projects will be found in annex I which also describes briefly some other UNDP (Special Fund) projects having a bearing on small industry development.

#### (c) Management Development, Training and Productivity Centres

UNDP (Special Fund) assistance is currently provided to sixty-eight centres in forty-two countries, with functions in one or several of the following fields: management development, executive training, vocational training, in-plant training, productivity improvement, occupational safety. UNDP serves as executing agency for sixty-three of these projects, UNCTAD for three, and UNRWA for two. A list of these centres will be found in Annex II.

The main activity of these centres is training for industry and productivity improvement. Under the guidance of teams of international experts, curricula are being developed, training programmes devised and classrooms and laboratory facilities designed and constructed. UNDP centres cover a spectrum of all types and sizes of small-scale industries ranging from training and advisory services to such as a paper mill.

Some of the management development and other centres have specific functions related to small industry development, especially provision of advisory services to management, training, marketing and accounting, and technical counselling.

These projects of this type are complementary with other Special Fund projects related specifically to small-scale industry. In the same country. This is the case, for example, of the Management Training and Advisory Centre (ITC) and the Small Industries Support Program in Mauritius estate (SIS) projects in Uganda, in which operational facilities are developed and certain facilities - testing laboratory, mechanical workshop and tool room, library and information centre - are shared by both projects.

#### (d) Industrial Staff and Development Centres

Industrial studies and development centres have been created in recent years with assistance from UNDP (Special Fund) and the United Nations serving as Executive Agency. Five are national centres (Iran, Jordan, Saudi Arabia, United Republic of

Tanzania and Tunisia) and one is a regional centre (Maghreb). The centres are listed in Annex II.

The functions of the Centres are to formulate, study and evaluate industrial projects of all types and sizes and to assist in their implementation; and to advise Governments on all matters relating to the industrial development of the country or countries which they serve.

Some of them also have specific functions in the field of small-scale industry, including not only feasibility studies and formulation of promotion measures, but also technical assistance and establishment of industrial estates; this is the case of the centres for Jordan, Saudi Arabia and Tanzania.

#### (b) Research Institutes

UNEP (Special Fund) is currently providing assistance to forty-one national industrial research institutes in twenty-three countries and to a regional institute for central American countries. The United Nations serves as executing agency for thirteen of these projects, EC for one, DAC for seventeen, and OAS/SCC for eleven. The projects are listed in Annex III.

Many of the institutes are specialized in such fields as food technology, forest research, tannins, skins and leather, rubber, petrochemicals, engineering, foundry and forge technology, silicosis, fine chemistry, coffee, etc.

Some are general-purpose institutions; this is the case of the institutes in Colombia, Israel, Jordan, Libya, Thailand and Central America. Some of the general-purpose institutes provide advisory services to small-scale industries. One of them - the Institute for Investigaciones Tecnológicas of Colombia - assists in the establishment of industrial estates.

#### (c) The place of small industry projects in over-all UNEP (Special Fund) operations in the field of industrial development

Currently, UNEP (Special Fund) is assisting 157 large-scale pre-investment projects which have a bearing on industrial development. The cost of these projects, upon completion, is expected to be \$100 million, of which \$67 million will be furnished by UNEP and the equivalent of \$43 million by Governments as counterpart contributions.

Of these projects 128 in 59 countries are specifically intended to help develop and support industry, the majority of them serving small-scale industry directly or indirectly. The numbers are as follows as of January 1967:

Type of project	Number of projects	Number of countries	Number of projects bearing on small industry development (estimates)
Service institutes for small countries	10	10	10
Industrial estates	2	2	2
Centres of development, training and productivity institutes	68	44	60
Industrial development centres	6	2	6
Research institutes	40	23	25
Total	128	59	103

Other projects relating to industry include 47 feasibility surveys and studies carried out in 46 countries, 3 of the projects being of regional scope. Most of the projects investigate resources, many of them for forestry and fisheries development work. This group includes a project of a new type - the establishment of a small plant for the commercial manufacture of cyrethrus extract for insecticides, a project now beyond feasibility study since it is aimed at assisting in the establishment and initial operation of an industrial plant to the extent of providing its operational advice.

The remaining 30 projects have an important bearing on industrialization. They include 27 projects relating to the development of infrastructure (power, transportation, communications, water supply), and 17 projects concerned with planning and engineering education.

The three-year project was approved by the Governing Council in January 1967. Its total cost is of \$1,000,000 of which \$1,400,000 is earmarked by the Special Fund and \$400,000 by the Government.

These data suggest that while a large number of projects have a bearing on small industry development, there is much scope, in many countries, for new projects\* relating specifically to this sector, in particular industrial estates with common service facilities, especially tool rooms, small industry service institutes and industrial extension centres.

### 2. UNDP (Technical Assistance) Projects

Under the technical assistance component of UNDP,<sup>2/</sup> 787 projects directly or indirectly related to industrial development have been approved for implementation in 125 countries and territories under the 1965-66 biennial programme. Of these, 50 (including expert missions and fellowships) are within the industrial sector, and of these, 29 have important significance for industrial development though they are not directly in the industrial sector. Of the 50 projects, 31 are specifically concerned with small industry development; 19 others relate to industrial training and 10 to industrial research, and it is likely that a significant number of projects in the latter two groups have a bearing on small industry development.

The 50 projects included in the 1965-66 programme are as follows:

	Number of projects	Cost of projects (£ equiv <sup>3/</sup> )	Number of experts	Number of fellowships
<b>Small-scale industry</b>				
Initiation and development	25	1,165,951	40	1
Industrial co-operation	25	1,007,270	44	67
Industrial estates	1	25,000	2	1
<b>Industrial training</b>				
Management training	26	1,260,370	54	42
Vocational training	39	1,747,550	81	270
Accelerated training for adults	10	251,300	5	57
<b>Industrial research</b>				
Industrial technology	13	332,800	30	44
Industrial standards and specifications	4	115,200	3	31
Industrial planning	67	3,792,600	196	184
Industrialization policies	2	51,900	2	-
Development of individual industries	54	2,574,900	131	102
Total	392	12,522,700	394	365

Source: Document TD/B/S/AC.1, page 25

Note: Figures reflect approved Category 1 Programme for 1965-66. They do not reflect programme changes and contingency authorizations.

<sup>2/</sup> Including United Nations and related agencies.

The types of technical assistance projects and missions in the field of small-scale industry are described in Technical Assistance for the Development of Small-Scale Industries.<sup>6</sup> Missions are concerned with technical assistance, preparation of feasibility and pre-investment studies, extension of industrial extension and other services, establishment of common service facilities in rural areas, etc., and so on.

Some examples of technical assistance operations for the provision of technical services are as follows. In China, an expert has been assigned to improve the quality of the glass factory in Sicte and in establishing a second glass factory. In Chile, an expert is providing advice on maintenance and repair of machinery in small industrial establishments. In China (Taiwan), a financial expert is providing technical assistance in relation to private and finance industries, including the field of credit supervision, terms of loans, organization of small business, etc. In India, a tool room expert and a tool die maker are attached to an alloy industrial estate in Madras. An expert is attached to the Small Industries Development Centre in New Delhi to improve the low-quality technical equipment of small-scale manufacturers; the expert trains superintendents of small-scale units, provides technical advice and helps in developing prototype designs, and provides technical assistance to the small industry sector. In the field of production of anti-hour motors, magnet and other electrical components, the existing design and manufacturing methods of the Indian manufacturer of small-scale equipment, the expert recommends the establishment of a design centre of a specialized design centre for equipment manufacturing. In the field of production of a request for assistance from UNDP (Special Fund), which was submitted by the Government and is now under evaluation. In the field of production of small-scale equipment, the expert recommends the establishment of a design centre of a specialized design centre for equipment manufacturing. In the field of production of a request for assistance from UNDP (Special Fund), which was submitted by the Government and is now under evaluation. In the field of production of small-scale equipment, the expert recommends the establishment of a design centre of a specialized design centre for equipment manufacturing. In the field of production of a request for assistance from UNDP (Special Fund), which was submitted by the Government and is now under evaluation.

It is felt that the types of projects described in this publication may be assisted by UNDP.



the footwear industry. In Western Samoa, two experts and an associate expert have helped in the improvement of furniture and cabinet-making industries and the introduction of modern designs. In the past two years, staff members and technical advisers of UNIDO have provided advice on policies and programmes of development of small-scale industries and industrial estates to Governments of 20 countries and have formulated requests for assistance under UNDP, including both Special Fund and Technical Assistance operations, and under SIS, in particular for the establishment of industrial estates.

## II. SPECIAL INDUSTRIAL SERVICES

The purpose of the recently established programme of Special Industrial Services (SIS) is to provide such specific and urgent assistance as may be required to make feasible the financing and implementation of industrial projects. It covers the range of services required by Governments for the implementation of projects after the initial feasibility study has been completed but before the necessary capital investment has been assured.<sup>I/</sup>

In the period March 1967 to February 1968, 15 out of 52 approved or completed projects were concerned with the establishment of industrial estates and the provision of related services for small-scale industries.

## III. RESEARCH IN THE FIELD OF TECHNICAL SERVICES AND FACILITIES FOR SMALL-SCALE INDUSTRIES

All the documentation on technical services and facilities for small-scale industries prepared so far by the Secretariat and consultants of the United Nations Industrial Development Organization has been submitted to the Working Seminar. Several series of other projects in this field are included in UNIDO's work programme for 1967-1968. These are briefly described hereunder.

<sup>I/</sup> For more details, see ID/B/7.

One series of projects deals with common service facilities which may be set up in or outside industrial estates. The first two projects are concerned with the tool room and the testing and quality control laboratory, respectively.

Each study will contain a detailed description of the purpose, functions, layout, plant, machinery and equipment, staff, administrative and management procedures and other requirements for setting up and operating these facilities, including economic, engineering and cost data. The tool room study will also describe related facilities such as design and drawing office, and metrology section. The laboratory study will also examine quality certification and marking procedures.

'Model' studies will describe the minimum and optimum range of facilities which can be adapted, with the necessary modifications, to local conditions and needs in various countries.

Another series of 'model' studies will relate to specialized industrial estates. The first projects will deal with the functional and ancillary industrial estates. The latter brings together small units engaged in a common production programme under which they produce parts and components and assemble a given product. The latter model studies will examine producing parts and components or carrying out processing including operations of subcontract nature in large firms.

Other studies will discuss the suitable uses of architecture, organization, layout, machinery, materials, equipment, finance, etc., including economic and engineering considerations and attention will be paid to the common service facilities required on the industrial estates of this type. Further studies will relate to part and airport industrial estates.

A series of related projects will be concerned with the conditions under which the small industrial units could be able to produce, in part or on a whole, certain types of goods of special importance to the developing countries, either as subcontractors for large firms or under joint production programmes.

Attention is being given to studying a subject of paramount importance and ever-increasing importance - the execution and assembly of parts and components of machinery goods, including machine-tools, by small establishments.

Studies will also be undertaken on the production and assembly of consumer goods which lend themselves particularly well to manufacturing by small enterprises, either as subcontractors or under joint production programmes. A first study will deal with bicycles. It will be followed by studies of sewing machines, centrifugal pumps, agricultural implements, automobile components and other products.

All studies will describe in detail the specifications of the components, the various processes, machinery and equipment involved in their manufacture, investment and other costs, and will contain recommendations for the organization of production by small units on a subcontracting or joint basis, including establishment of units on ancillary and functional industrial estates.

Annex I

UNDP (SPECIAL FUND) PROJECTS BEARING ON SMALL INDUSTRY DEVELOPMENT

This Annex contains brief descriptions of ten UNDP (Special Fund)-assisted projects providing services to small-scale industries in Ceylon, Chile, Greece, India, Israel, the Republic of Korea, Panama, Singapore, Thailand and the United Arab Emirates, and of two industrial estate projects in Iraq and Uganda, respectively.

It also contains summary information on a few typical projects of broader scope which include services such as servicing of small-scale industrial management training factory centre in Sweden, which is complementary to the industrial estate project in that country; a national productivity centre in Jamaica; an industrial studies and research centre in Saudi Arabia; and a technological research institute in Colombia.

SERVICE INSTITUTES

1. Ceylon: Small Industries Service Institute

In 1952, with the assistance of the United Nations Special Fund and the International Labour Organisation, the Government of Ceylon established a Small Industries Service Institute at Colombo. The purpose of the project is to provide services and facilities to small-scale industries to stimulate their development and growth. The main functions of the Institute are:

- (a) To carry out techno-economic surveys of industries and to make recommendations in respect of such industries which could be most effectively developed;
- (b) To conduct market surveys of products manufactured or considered suitable for manufacture on small and medium scale on a continuing basis with a view to ascertaining requirements and consumers' preferences and disseminating them;
- (c) To carry out experiments, testing and research in such matters as improved design of products, alternative materials, improved processes of production and low development and introduction of tools and equipment particularly suitable for use in small-scale industries and which are available in Ceylon;
- (d) The organization of a training course for Government extension personnel (including those organized by the Government of Ceylon and other countries) and for the personnel of co-operative societies and private industrial concerns, in respect of extension techniques, methods of organization and coordination with particular reference to small-scale industries, of improved technical processes, including the use of modern tools and equipment, and of the establishment of a permanent advisory service such as can be provided locally;
- (e) The organization of a information centre to enable the field extension personnel to give technical information, advice and guidance to small industrialists as to industrial co-operatives in matters relating to credit, production, supplies and marketing;
- (f) The organization of common production facilities services, including training and experimental activities, until such time as such services may be successfully organized under public, private or co-operative ownership and management.

The Institute comprises four sections for, respectively, (a) techno-economic studies and services, (b) technical investigation, testing and experimentation, (c) civil engineering and (d) training and extension.

It maintains close working relations with the Ceylon Institute for Scientific and Industrial Research in all matters of applied technology in small undertakings.

Some international experts have been appointed, and fellowships have been granted to ten counterparts attached to the Institute.

The total (social credit) allocated 1 million, including an amount of 15,000,000,000. The Government contribution in distribution amounts to 1.5 million.

It has been presently being held in the form of a small unit of the Institute in order to cover in the immediate future the needs of the Institute to increase its small-scale industrial and engineering activities.

Office: Department of Small Industries - Servicio de Cooperación Técnica

This project has been approved by the Social Fund of Ceylon and has been designated as "Executive Project".

The purpose of this project is to strengthen the work of the Department of Small Industries of the Servicio de Cooperación Técnica, to enable it to provide a wider range of small-scale industrial and engineering services to the small-scale industrial and engineering units of the country, and to provide facilities for workers and owners of such units. The project will be carried out in the form of a small unit of the Institute in order to cover in the immediate future the needs of the Institute to increase its small-scale industrial and engineering activities.

The Department of Small Industries will be required to provide services for:

- (a) Increasing the productivity and efficiency of industrial establishments, improving the quality of their products and increasing the quantity of their production;
- (b) Promoting the establishment of new industries, in particular for small-scale units, where such units are not incorporated, to satisfy the growing demand for goods and services while creating new employment opportunities;
- (c) Strengthening the economic position of the small entrepreneur through the provision of co-operative and other facilities;
- (d) Providing facilities for the decentralization of industrial enterprises in order to provide meaningful occupations for unskilled rural workers who are unemployed; in this connection, feasibility and market studies will be undertaken.

In order to give practical realization to the above objectives, when the economic feasibility and market studies indicate sound new industrial possibilities, the Department will prepare model schemes for the size and location of plants. This work will include the preparation of detailed engineering designs of plants, and the provision of advice and recommendations concerning such projects to prospective investors. In this work, the Department will collaborate with private consulting engineering firms.

The ICF (Social Fund) will provide, over a five-year period, thirty-one thousand man-years of project services, including all project management other expenses in the following specialized fields: industrial economics, chemical, electrical and mechanical engineering, robotics, design services, industrial planning, industrial design, factory and plant layout design, etc. These services will be provided by contract or personnel services under the supervision of the Department. In addition, the ICF will provide one year's training for 1000 man-years to permit participation of the country's industrial firms. In addition, the ICF will provide technical and quality control laboratories, all of which will be financed in the national budget, besides, technical and industrial training courses, and other social development projects, amounting to 1,000,000. The Government's other contribution is of 50,000,000 and consists of land, buildings, the salaries of personnel, locally available equipment and operating expenses.

#### A. Greece: Institute of Small Industries

This project, which is the first of this kind to be established in Europe, was approved by the ICF (Social Fund) in January 1967 and the ICF has been allocated a total execution budget.

The purpose of the project, the duration of which is five years, is to assist the Government of Greece in the establishment of a small industry development service (I.S.I.). The service will be established by an act of Parliament as a public institution under the Ministry of Industry. With administrative and financial control in the hands of industrial policy, it will have a large measure of autonomy in order to ensure operational flexibility. It will be directed by a Board of Directors appointed by the Ministry of Industry, with secondary representatives of representatives of public and private industry, and officials of various small industrial firms. It will cooperate closely with other organizations in the country of economic research, the Greek University Centre, the National Organization for Scientific Research, the National Research Centre and the Small Industry Organization. The service will have its headquarters, including operations, in Athens, Greece. It will also have a number of regional centres of industrial activity. Since the project is established in the ICF, the Government will allocate two hundred man-years for the five-year period of the service, coinciding with the life of the project. During the period, the service will be financed by regular governmental appropriations. The service will be organized in three sections:

(a) Investigation, Planning, and Development Section, which will carry out techno-economic investigations and surveys in industrial fields with a view to expansion. These studies will cover: comparative cost, productivity, shipping, market surveys, industrial relations and social measures and policies necessary to promote the development of small industries in the urban and rural areas. This section will maintain close and systematic contact with existing and potential industrial enterprises;

(b) Experimental and Training Section, which will carry out both in-house and out-house research and development in the field of industrial and agricultural machinery. This section will give a number of technical and managerial training facilities for technical level staff and management level staff. Initially, the work of the section will be confined to design and development of engineering, mechanical, electrical, and electronic equipment. The section will also be responsible for a variety of technical and managerial training at all levels. In co-operation with the existing technical and managerial training centres, courses will be arranged for management personnel concerning: design of production and control systems, directed towards the improvement of productivity;

(c) Extension and Services Section, which will render advice and assistance in the adoption of manufacturing processes and machinery. This section will be responsible for the selection and installation of machinery and equipment. It will also be responsible for the selection of machinery and equipment. It will also be responsible for the selection of machinery and equipment. It will also be responsible for the selection of machinery and equipment.

The total estimated cost of the above-mentioned services, including a provision for a staff of 100, is estimated to be Rs. 100 lakhs. The Government will contribute Rs. 50 lakhs and the State Government will contribute Rs. 50 lakhs. The Government will also provide a staff of 100. The Government will also provide a staff of 100. The Government will also provide a staff of 100.

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4. India: Training and Advisory Services in Tool, Die and Mold Making for the Plastic and Other Industries, Coimbatore - Madras

This project has been approved by the USAID (Social Fund) in January 1966 and the IIC has been designated as the executing agency.

The aim of the project is to provide the plastic and some other small and medium-scale industries with trained personnel and advisory services for the design and manufacturing of moulds, dies and tools, which are vital for the development of these small processing enterprises. This will be achieved by providing institutional facilities for training in the basic mould-making skills, and following this with further training and experience in production plants.

In addition to specialists mould technologists, mould maker and mould designers, training programs will be provided to a variety of other skilled workers such as turners, grinder, millers, etc. Besides giving the small and medium-scale industries the necessary technical assistance it needs and providing a facility for the manufacture of some industry's mould requirements, the project will contribute to create a work habit of produce a high class of mould-making personnel.

The training courses will be carried out within a centre equipped with a variety of machines peculiar to mould manufacturing such as die sinking, duplicating, and grinding machines and with a sufficient number of standard type engine tools, to enable the trainees, under the direction of their instructors, to construct moulds for production industry.

The USAID Social Fund has allocated an amount of \$34,000 for the establishment of this project and the government counterpart contribution in kind is equivalent to \$1,345,000. The Social Fund counterpart includes the provision of the imported equipment and the provision of 180 man-months of international expert services. Ten follow-up of 6-month duration each will also be provided for the training of local counterparts abroad.

The agreement will provide the salaries of professional counterpart staff and of clerical, drafting and laboratory non-professional staff and laborers, the land and buildings and some equipment facilities available.

5. Israel: Small Industry Advisory Service, Tel Aviv

This project has been approved by USAID (Social Fund) in June 1965 and is being carried out with the assistance of an executing agency.

The project involves the expansion of an existing unit of the Institute of Productivity, Tel Aviv, into the Small Industry Advisory Service (SIAS). This service, which will remain closely connected with the Industrial Department of the Institute of Productivity, will have a large measure of autonomy, including a budget of its own. It will be advised by an advisory council composed of representatives of the Ministry of Defense and Industry, the Ministry of Labor and of public and private organizations concerned with industrial development.

The day-to-day operations will be directed by a Governing Board consisting of the Chief of the Division of Small Industry and Co-operatives of the Ministry of Commerce and Industry, the Director of the Institute of Productivity and the Director of the Small Industry Advisory Service. These organizational arrangements are designed to ensure a flow of services integrated with those provided by the Institute of Productivity, thereby avoiding overlapping and under-utilization of facilities.

The scope of the project will be limited initially to the development of the engine rim and woodworking industries. At a later stage, however, the expansion of its activities may be considered. The Small Industry Advisory Service will be organized into the following three divisions:

- (a) Technical Investigation Service to identify problems which limit the modernization, such as machinery and equipment of small industries as a preliminary to suggesting ways and means of overcoming such problems. In this aspect of its work, it will establish close technical contacts with existing Institutes for a higher technical education in the country. It will develop prototype equipment for the engineering and wood-working industries and adapt existing equipment to the needs of small industries. Demonstration under practical conditions will be included;
- (b) Consultative and Advisory Service for the purpose of a) helping during operations, raising productivity, and utilization of resources, and creating better working conditions for the employed labor force. This service will also assist public agencies in the administration of loans and credit schemes and of projects involving the re-equipment of the existing small industrial units and of new small units and creation of small scale projects. In collaboration with the Bureau of Productivity, it will arrange courses in the areas of small industry, accounting, costing of products and improvement in productivity;
- (c) Demonstration and Training Service which will arrange application, familiarization and skill-upgrading courses for managers and supervisors and foremen of small-scale industrial plants. This service will have at its disposal shops for machine-tool and die-making, and for sheet metal working, and treatment of electro-plating, and work in order to provide demonstration and training for entrepreneurs, managers and foremen.

The UK Technical Team will provide, over a four-year period, twelve man-years of expert services, including an industrial economist, a Project Manager, a Product Development Officer, a Tool and Die-making specialist and an expert in woodworking. Four fellowships, each of one year duration, will be made available to merit candidates of the counterpart at Ft. St. John's. Imported equipment for the workshops in the amount of 15,000 will also be provided.

**6. Republic of Korea: Extension Services Department in the Medium Industry Bank, Seoul**

This project has been approved by the USAID (Special Fund) in June 1966 and the USAID has been designated as the executing agency.

The purpose of the project, the duration of which is four years, is to assist the Government of the Republic of Korea in establishing and gradually expanding an Extension Services Department within the Medium Industry Bank, responsible for the provision of managerial and technical consulting services to small and medium-scale industries, as an integral part of the Bank's over-all services.

The main function of the new Extension Services Department will be to provide smaller industries with those services which large-scale industry agencies can ill-afford to provide, such as employment of specialists, market research, marketing, advertising, production superintendents, personnel management, accountancy, and to medium-scale industry consultancies to employ such personnel on a full-time basis. The new Department will enable them to obtain some of the specialized services they may need from the outside. The Department will also endeavor to develop the managerial and technical services to assist these industries in diagnosing and solving current technical and other industrial problems, to advise on financial and marketing matters, and to conduct, if so requested, feasibility studies on projects for which financing is requested from the Bank or other sources. These functions will be carried out by a small group of advisers, assisted by a larger group of extension oficers who will make the initial contacts and carry out the necessary follow-up in the field. The Extension Services Department will be an integral part of the Medium Industry Bank. While the directorate is the main staff of the Department, it will be located at a separate office in Seoul, its advisory and extension oficers will eventually cover the entire country's thirty-nine provincial offices throughout the country.

The USAID Special Fund contribution amounts to \$769,000. The Special Fund will provide Korean counterparts of expert services, including those of a project manager, resident experts in the fields of management, industrial engineering, and general managerial leadership. Additional consultant services, mainly short-term in duration, will be available under subcontract to deal with more specialized industrial problems as and when required. Twelve full-time staff will be provided, six of six months duration each of three months each. Equipment to be furnished by USAID (Special Fund) includes technical books and publications, office equipment not locally available, and vehicles.

In addition to providing appropriate office space for the Department in the Bank's new head office building, the Government will provide the salaries and services of thirty-five Korean professional counterparts for training in the functions of director, industrial advisers and extension oficers, as well as the necessary administrative and supporting staff and services, furniture and equipment, and running expenses. The total Government counterpart contribution amounts to \$517,000.

7. Yanama: National Service for Crafts and Small Industries

This project has been approved by UNCTAD (Special Fund) in June 1966 and is being established with the assistance of UNCTAD as Executive Agency.

The objective of the project is to provide advisory assistance to the Ministry of Agriculture, Commerce and Industries in the execution of a programme tending to identify the problems and possibilities of small industries and crafts and to promote the development of this sector of the national economy.

It is expected to continue the work already initiated through the existing programme of technical assistance under PAF 6. The service will be located in the City of Yanama and will carry out its activities within the structure of the National Development and Productivity Centre (CENAP).

The Centre will carry out its activities through the following units: a) a first unit to provide advisory assistance in the areas of technical, financial and administrative organization for the families of the CENAP. The second unit will be concerned with a study of the small industries and crafts and will carry out a study of the needs of the sector, to provide advisory services, organization of group work and other considerations in the area of technical and financial assistance, and promotion of research and development in different units related to small industries and crafts.

During the first year of operation, the Centre will be closely involved with the Ministry of Agriculture, Commerce and Industries in the field of technical, financial, administrative and organizational assistance to the small industries and crafts. The Centre will also carry out a study of the small industries and crafts and will carry out a study of the needs of the sector, to provide advisory services, organization of group work and other considerations in the area of technical and financial assistance, and promotion of research and development in different units related to small industries and crafts.

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- (a) to provide courses at the basic-professional level for a maximum of ten months, attended each by twenty or twenty-five students with knowledge and experience in the subject covered in the course;

- (b) Two "improvement" courses of six months duration at the middle professional level, attended by twenty persons each having practical experience in the profession and some knowledge of the subject.
- (c) Four courses of two months duration, attended by ten persons each having experience, both practical and theoretical, at the advanced level.

The elementary or basic activities will be carried out in the form of courses regarding organization and management of work units, proper administrative procedures, accounting, costs, etc. They will also include subjects pertaining to the subject of project writing and development of co-operatives.

The ILO (Special Fund) is contributing 93,200 and the Government, 100,000. The Special Fund contribution includes the following:

Experts - total of 31.6 man-years of expert services distributed as follows: a project manager, three experts in administration, two experts in training, improvement and extension services.

Fellowships - for ten people for a total of five man-years.

Equipment - equipment and supplies for a total value of 20,000; gallery (carriage) rollers, overhead crane, lathe, etc. Also, water and fire pumps, furniture, etc. Also, other equipment for rural extension work in the field, such as equipment for agricultural extension projects.

The Government will provide the land, buildings, the salaries of the local staff, clerical and other staff, and the maintenance of the project office. It will also provide electricity, office furniture, and other services not provided by the Special Fund.

### 1. Advanced Light Industrial Service Unit

This project was approved by the Special Fund in January 1963 and the ILO is acting as executive agency.

In the past few years, in response to the Special Fund, the Government of Singapore has embarked on a vast program leading to the creation of a favourable investment climate and increasing the pace of industrial development. In particular, the Government has come up with the following:

- (a) Made income tax relief facilities available to promote the establishment of new, and the expansion of, existing undertakings;

- (b) Expanded a programme to provide industrial sites to newly established industries under favourable financial terms;
- (c) Relaxed immigration policy for industrial entrepreneurs who desire permanent stay status and who will establish manufacturing undertakings in Singapore;
- (d) Encouraged professional and vocational education and training at all levels;
- (e) Established an Economic Development Board, following the recommendations of a United Nations Industrial Survey Mission, as an inter-departmental body to give practical effect to policies for economic development in general and for industrial expansion in particular;
- (f) Established, as an affiliate of the Board, an Industrial Research Unit to provide services to industry in fields of applied technological research and testing; and
- (g) Made facilities available, under the Industrial Development Scholarship Scheme, for the training of local personnel in technical skills.

However, it is generally the larger establishments which are in a position to take advantage of these facilities. Special arrangements were therefore made to include the small manufacturing sector in the system of government services to industry.

The objectives of the Light Industries Service Unit are:

- (a) the promotion of the establishment and growth of small-scale industries;
- (b) the creation of new employment opportunities; and
- (c) the integration of larger and smaller manufacturing industries into a nationally planned industrial structure.

The Light Industries Service Unit (LISU) is established as an affiliate body of the Economic Development Board, like the Industrial Research Unit (IRU), it is under the control of the Technical Consultative Service Division (TCS) of the Board. With a large measure of autonomy, it is to be guided by its operational activities through an advisory Council consisting of representatives of small employers and of public officials, under review of with industrial establishments in general and small industrial establishments in particular. In order to integrate this project with a broader industrial development programme and to facilitate close co-operation with the existing institutions, the Light Industries Service Unit has been physically located together with the Industrial Research Institute, in the complex of the Singapore Polytechnic.

The SISU comprises three functional parts, whose designation and main attributes are as follows:

1. Extension Service which is responsible for a systematic analysis of the problems confronting individual or groups of small establishments and for investigating and assessing loan applications.
2. Section for Economic Investigation, Planning and Development, which carries out investigations in such fields as management and organization with special emphasis on conditions which stimulate or limit the growth of small enterprises.
3. Section for Training and Demonstration which undertakes the organization of training programmes and the execution of model demonstration and extension schemes and is responsible for the operation of a light engineering department, a wood-work workshop and a food processing workshop.

The SISU, in co-operation with the IRI and other Governmental agencies, is sponsoring a comprehensive programme for the inter-service training of the professional staff of the Unit, the training of owners and managers in management techniques, of small entrepreneurs in new technologies, of technicians and foremen in supervisory skills, and of entering skilled workers in the operation and maintenance of various advanced production machines.

The Special Fund contribution amounts to \$5,017,000 while the Government counterpart contribution is equivalent to \$31,000.

The Special Fund is providing a total of 10 man-years of expert services in the following fields: industrial extension services, industrial engineering, vocational training, feasibility studies of industrial projects, labour relations and economic research.

Short-term fellowships are also provided for the training of the counterpart staff including one Fellowship of twelve months duration for the workshop superintendent.

The Special Fund contribution includes also an amount of \$300,000 for the equipment of a machine shop, welding and sheet metal shop, plating and finishing shop, woodwork shop and food processing shop.

The Government counterpart contribution includes the provision of land and buildings, the salaries of the local staff, some equipment and expenses for technological research and development conducted by the IRI for the SISU.

#### 9. Thailand: Small Industries Service Institute, Bangkok

This project has been approved by the SIF (Special Fund) in January 1965, and is being set up by IIC as executing agency. The Small Industries Service Institute will be established in Bangkok, as a bureau within the Department of Industrial Promotion of the Ministry of Industry. Its operation will be guided by a Board

**Industries Advisory Board, composed of the Director General of the Department, representatives of public and private bodies concerned with industrial development, and industrialists.**

The purpose of the Institute is to promote the development, modernization and growth of new and existing small-scale industries through the provision of economic studies and market research services, technical and managerial training and manufacturing services and extension and advisory services. Initially the Institute will concentrate its activities in the greater Bangkok area and will emphasize its services to light engineering and textiles industries, operating on a small scale.

The Institute will maintain the closest working relations with the Technological Research Institute and the Thailand Management Development and Productivity Centre (in particular, as well as with other institutions in the country dealing with aspects of industrial development. The Institute will be organized in the following divisions:

- (a) Economic Studies and Information Division, to carry out studies of viability and growth prospects of small-scale industries. The results will be made available to all interested persons and organizations.
- (b) Extension Division, to render extension services to small industry, including advice on improving and reducing unit manufacturing processes and the quality of the products. The function of this division will be to advise on the processing of loan applications and to supervise the utilization of the loans. In collaboration with the Management Development and Productivity Centre, it will arrange courses in management of small industry, accounting, control of stocks, and development of productivity.
- (c) Manufacturing Research and Design Division, to develop prototype equipment for the engineering industries and adapt existing equipment to the needs of small industry. This division will investigate present operating conditions. In this division, there will be established a design office for developing manufacturing processes, tools and jigs. It will maintain a library of publications and will pool information with other technical and scientific institutions such as the Technological Research Institute.
- (d) Workshop Division, which will include a small laundry, forging and welding shop, a shoe and tailoring shop, pattern shop and electroplating shop, to provide documentation and training for entrepreneurs, technicians and foremen.
- (e) Textile Division, to render training to small textile undertakings with regard to improved methods and adaptation of fabric designs from machine to hand looms. (This Division is already established and only expert services will be provided to it under this project).



The Special Fund will provide, over a five-year period, twenty-seven man-years of expert services to train the Chief Counterpart personnel and advise on the setting up of the Institute.

Eight fellowships, each of one year's duration, will be made available to permit certain of the counterpart staff to study abroad, and imported equipment for the workshops will be provided.

The UNDP (Special Fund) allocation amounts to \$217,100 whereas the Government contributes the equivalent of \$1,334,000 in services and facilities including land, buildings, salaries of personnel, locally available equipment and operational expenses.

13. United Arab Republic: Institute of Small Industries, Cairo

This project has been approved by the UNDP (Special Fund) in January 1966 and ILO has been designated as executing agency.

The purpose of the project is to strengthen and expand the operation of the Egyptian Organization for Co-operative Production and Small Industries (ECSPI) and to provide facilities for research, training and demonstration to assist private entrepreneurs and government-assisted co-operatives.

The Institute assists the small entrepreneur by means of extension services. It advises him on improved technology, design, use of new materials, availability of markets, and on those economic problems which affect small industries.

The Institute has five sections: (a) technical investigation and experimentation; (b) economic investigation, including market surveys and feasibility studies; (c) training, demonstration and advisory services for instructors employed in government-sponsored training-co-operative centres in a variety of manufacturing areas; (d) an information section; and (e) an industrial workshop section with a number of production-unit-based training units for the trades, including vegetable-fibre processing, carpentry, light engineering, pottery and traditional artistic handicrafts. These workshops provide the technical base for the training, demonstration and advisory services mentioned under (c) above, while a fifth workshop for the light engineering trades and for the development and manufacture of prototype equipment suitable for smaller manufacturing enterprises. In the past will be added later on at the expense of the Government. The training courses given in the Institute vary from one to six months, according to the subject. Shorter in-plant training courses are also given by the experts and their counterparts. An important part of the work of the international team and their counterparts related to the provision of in-plant consulting services is to solve technical, managerial and operational problems encountered in co-operative industries. Several technical and marketing field surveys and investigations have been carried out to determine the future of the ceramic industry, carpentry and furniture manufacture, light engineering trades and handloom weaving centres. So far the services to the small and co-operatives enterprises are being provided free of charge.

The U.S. (Special Fund) allocation amounts to \$28,100, whereas the Government contributes the equivalent of \$77,100 in services and facilities.

The U.S. (Special Fund) provided twenty-four man-years of expert services and an amount of \$7,000 for fellowships. It also provided workshop, audio-visual aid and transport equipment to the amount of \$91,000.

Because of administrative and other difficulties, the development of the Institute took more time than originally foreseen and it has been agreed to extend the project to September 1947. Request for extension of assistance in a second phase has recently been submitted.

Industrial Institute, 1942

This project is the first of its type to be assisted by U.S. (Special Fund). It was started in June 1943. The industrial institute is not being established for the assistance of a United States acting as executing agency.

The purpose of this project is to use services and facilities for the development of small enterprises and industries in Iran by assisting the Government in establishing industrial units and units of industry, providing planning, construction and initial operation of a factory, laboratory, etc.

The kind of assistance provided in this project and Government the industrial institute consists in providing consulting services in a field of manufacturing, including, but not limited to, the following: (a) survey, design, construction, and operation of small enterprises; (b) survey, design, construction, and operation of small enterprises; (c) survey, design, construction, and operation of small enterprises; (d) survey, design, construction, and operation of small enterprises; (e) survey, design, construction, and operation of small enterprises; (f) survey, design, construction, and operation of small enterprises; (g) survey, design, construction, and operation of small enterprises; (h) survey, design, construction, and operation of small enterprises; (i) survey, design, construction, and operation of small enterprises; (j) survey, design, construction, and operation of small enterprises; (k) survey, design, construction, and operation of small enterprises; (l) survey, design, construction, and operation of small enterprises; (m) survey, design, construction, and operation of small enterprises; (n) survey, design, construction, and operation of small enterprises; (o) survey, design, construction, and operation of small enterprises; (p) survey, design, construction, and operation of small enterprises; (q) survey, design, construction, and operation of small enterprises; (r) survey, design, construction, and operation of small enterprises; (s) survey, design, construction, and operation of small enterprises; (t) survey, design, construction, and operation of small enterprises; (u) survey, design, construction, and operation of small enterprises; (v) survey, design, construction, and operation of small enterprises; (w) survey, design, construction, and operation of small enterprises; (x) survey, design, construction, and operation of small enterprises; (y) survey, design, construction, and operation of small enterprises; (z) survey, design, construction, and operation of small enterprises.

The U.S. (Special Fund) has provided \$27,000 of the Government contribution for the industrial institute and \$2,100,000.

The Special Fund's assistance consists of the provision, by contract, of the following, through the executing agency:

- Manpower - a total of 40 man-years of expert services, including chief engineer, technical engineer, medical engineer, civil engineer, industrial economist, factory and chemical engineer and department consultants.

**Fellowships** - four fellowships of six months each for to train certain of the Iranian counterparts abroad in the field of industrial estates.

**Equipment** - for common service facilities - provision of imported equipment and materials for a machine tool and sheet metal workshop, a foundry, a force and heat treatment workshop, a pattern-making works or cold-chamber metallurgical and foundry moulding sand laboratory.

The Government counterpart contribution includes provision of local staff services, land, site development work, construction and building costs, vehicles, office furniture and equipment.

The estate will serve as a demonstration project for more to be expanded programs to be carried out by the Iranian Industrial Estate Authority.

The Iranian Government is expected to take such measures for the promotion of industries to be established in the Industrial Estate, including financial and technical concessions, a tax concession and to provide to meet its probable needs.

Yamalo: Small Industries Development Programme - Establishment of an Industrial Estate - April 1964

This project has been approved by the Government (in 1964) and is now being undertaken by the Ministry of Industries and Commerce.

The programme of the project is to determine and expand the Industrial Division of the Ministry of Industries and Commerce to enable it to implement small industry programme. Assistance will be given to determine the area of the industrial estate at Kargah.

The programme will be organized to meet the following objectives:

- (a) Identification of industrial entrepreneurs:
  - (1) by carrying out surveys on prospective industrial development, taking into consideration such factors as the availability of raw materials, power, capital and labour, and the requirements of the country's over-all industrial development plan; a list of feasible industries for each locality will be established;
  - (2) by preparing model schemes describing the capital, plant and equipment, materials and other necessities required for these new industries;
  - (3) by carrying out feasibility and market studies at the request of prospective and established entrepreneurs; and
  - (4) by assisting such entrepreneurs in the formulation of bankable projects for financing by credit institutions, commercial or public.

- (b) Assistance to indigenous entrepreneurs in setting up new small-scale industries covering every aspect from planning and construction to operations and maintenance. Advice will be given on plant layout and factory planning, equipment, procurement of materials, processes, accounting, quality control, etc. Ultimately, industrial extension and information centres will be set up in different localities to encourage prospective entrepreneurs to enter into industrial undertakings;
- (c) Supervision and management of industrial estates;
- (d) Provision of advice to the Government, through its officers, to establish an policies and programmes for industrial provision, development, rationalization of small-scale industries, including such provisions as concessional relief, grant relief, protection provisions and other incentives;
- (e) Development of fields of small-scale industries and dissemination of economic and technical information.

As autonomous agencies are concerned, these services will be provided by a number of functional units covering industrial estate, industrial extension centres, industrial research and information.

The total cost of establishment of 74,431 of the Government contributed 1,100,000.

For social and economic development of the provision, over five years period, the Government will provide services, such as infrastructure, power, industrial development, transport, water supply, credit facilities in rural and semi-rural areas. The following list of services which will be made available to the industrial units at an industrial estate are provided.

The Government will be able to provide co-operation with the private sector in the development of industrial estates. Advisory Centre, for social and economic development, will be set up to facilitate co-operation and co-ordination between the Government and the private sector. Advisory Centre will be set up to provide the services of the industrial estate.

As well as providing industrial advisory services and general services, such as power, water, transport, communication facilities, the development of industrial estates will provide various services facilities, which will include initially a technical service centre, mechanical workshop, tool room, library, extension centre.

The Government centrally includes a list of the basic technical list of all technical centres for the workshop and the library (estimated cost - 70,000 and six years period). The special fund is provided, besides the equipment for the library, the technical workshop, the tool room, the library and the information centre, facilities for a workshop and a library. The Government will provide service facilities for the extension centre.

use by the Government Training and Advisory Centre and this project - the operational responsibility for the library, information centre and the testing laboratory will be in this project and that of the mechanical workshop and tool room with the project for which the I.C. serves as executive agency.

4. GOVERNMENT TRAINING AND ADVISORY CENTRE

1. General: Government Training and Advisory Centre, Mysore

This project was approved by the I.C. Special Fund, in January 1965. The Centre is being established and started with special fund assistance for five years under the scheme of the Ministry of Commerce and Industry; the I.C. is providing a credit guarantee for this project.

The Ministry of Commerce and Industry is engaged on a programme of training and development with a view specifically to encourage the small to medium sized fields of industrial activities which are engaged in the... this programme is meant to... assistance in... training centre whose... other... carried out... a variety of... facilities... giving technical... to... .

The Centre is to co-ordinate with the small industry development programme and industrial... with the assistance of the United Nations... for the special fund.

In order to... it is... within the... . The objectives of the Centre are:

- (a) To help... to provide... particularly in... giving...
- (b) To... to improve... and methods...
- (c) To... for supervisory... in exist-...

To implement... the... will concentrate on three types of functions - advisory services, collection and dissemination of information and... .

The advisory... will be given to enterprises and individuals at the... of the... of the local... entrepreneurs and... . The... will cover the... of industrial... ,... ,... .



- (b) assistance and counsel on worker training, management-labour relations, industrial safety and health, working conditions for improved output and similar matters;
- (c) surveys, feasibility and bankability studies, pre-production planning and proforma costing for contemplated new or expanded enterprises, industrial loans and investments;
- (d) assistance, directly or in collaboration with other appropriate institutions, in applied industrial research problems, troubleshooting, and the formulation of standards of production and quality;
- (e) sponsoring, conducting and participating in programmes of training, education and development at all levels of labour and management, and organizing, assisting or enlisting the aid of associations, committees, teams or other groups in implementing such activities;
- (f) maintaining and operating a modern up-to-date reference library and information service in all aspects of production and industrial technology;
- (g) such other technical services, within its competence and financial ability, as the Centre may be able to render for the further improvement and growth of Jamaican production; and
- (h) public and promotional activities in favour of the improvement of productivity.

As part of its work the Centre will make available part in specialized advisory and expert services to the Jamaica Craft Development Agency to assist in its current expansion programme. Likewise, other Jamaican enterprises will be served by the Centre wherever the required expertise falls within its capacity and competence.

The Special Fund will also amount to \$54,000. It consists of twenty-five man-years of expert services in the fields of industrial visitation, process development and product standards, marketing and sales, worker training and industrial design.

Short-term technical consultants will be provided specifically for the development of the following fields: exotic foods, distillation and spirits, lace, cord-work, embroidery, needle-making, metal work, jewellery and shell work, hand-weaving, straw, needle-work and screen-printing.

The Special Fund will also provide fellowships for training of Jamaican counterparts and will include equipment for an industrial research laboratory, books and publications, library equipment and facilities, training equipment and vehicles. The Jamaican Government is contributing \$1,25,000 consisting of personnel salaries, buildings and equipment and other local expenses.

### 3. Saudi Arabia: Industrial Studies and Development Institute, Riyadh

This project has been approved by UNDP (Special Fund) in June 1965 and has been established with the assistance of the United Nations acting as Executing Agency.

The petroleum industry forms the basis of the economy in Saudi Arabia; in 1962, it accounted for about 80 per cent of the total Government revenue. The Government has been intensifying its efforts towards economic diversification and increased industrialization, special attention being given to the development of small and medium-scale industries. Several measures have been taken towards improving the climate for the establishment of new industries outside of petroleum and mining. Besides tariff protection, and the granting of tax concessions to local and foreign investors, the Government has established two industrial testing laboratories for chemical analysis and physical testing of food and vegetable oils, construction materials and industrial products. Training programmes for skilled craftsmen are being carried out with ILO assistance.

The objective of this project is the establishment and operation for the first three years of an Industrial Studies and Development Institute in Riyadh to advise the Ministry of Commerce and Industry on matters related to industrial development. The Institute will also serve as a practical advisory centre for the industry and will train local personnel in industrial feasibility studies and project evaluation and implementation. It will be organized to perform the following functions:

- (a) Provide the responsible authorities with advice and guidance in the preparation of the country's industrial programme and with assistance in carrying out industrial feasibility studies;
- (b) Advise on the establishment of new industries as well as on the financing and action implementation of such undertakings; and
- (c) Assist in the planning and establishment of industrial estates and advise on their management and operation.

The project will include the establishment of a model industrial estate to which the Special Fund will provide the necessary equipment for a small general service workshop. Estates will be set up at Riyadh, Jeddah and Dammam.

A branch office of the Institute will be created within the central facilities of one of the industrial estates; this branch office will serve as the nucleus for future extension services to small and medium-scale industries.

Over the three years of the project, the Special Fund is providing five experts as well as consultant services for a total of seventeen man-years. The project manager is an engineer-economist and the other experts include an industrial engineer in small and medium-scale industry, an industrial estate expert, a chemical engineer to advise on the industrialization of raw materials, and an information and documentation expert. Five fellowships, each of one year's duration, and workshop equipment and library materials will also be provided.



The total UNDP (Special Fund) contribution amounts to \$582,900 and the Government's contribution, to the equivalent of \$2,000,000.

The Government's counterpart contribution includes the salaries for local personnel, land and buildings, construction and operational expenses for the industrial estate and some equipment.

4. Colombia: Institute for Technological Research (Instituto de Investigaciones Tecnológicas), Bogotá

This project has been approved by the UNDP (Special Fund) in December 1960 and has been established with the assistance of the United Nations acting as Executive Agency.

The Institute for Technological Research was organized in 1955 and has been operating as an autonomous body under the sponsorship of five national entities including the National Reserve Bank.

During the four years of the project the following activities have been developed on behalf of medium and small-scale food, metallurgical, mechanical, chemical and agricultural processing industries:

- (a) Provision of technical assistance in developing operating techniques for improved utilization of raw materials and equipment;
- (b) Provision of assistance in establishing quality control systems;
- (c) Technical and market feasibility studies of new products;
- (d) Provision to small and medium-sized industries of existing technical knowledge not otherwise readily available to them;
- (e) Assistance to private and public agencies in directing industrial development towards higher productivity; and
- (f) Training of the technical personnel required to maintain the higher level of research to be developed at the Institute after Special Fund assistance ceases.

The different industries referred to above correspond to departments in the Institute. Research is undertaken at the request of both public agencies and private industry.

The UNDP (Special Fund) allocation amounts to \$582,700 and the Government's counterpart contribution is equivalent to \$15,000.

Seventeen man-years of expert services have been provided by the Special Fund including a Chief of Mission and a number of chemical, metallurgical and mechanical engineers as well as food technologists. An industrial estate expert is attached to the Institute. The fellowships included in the project have enabled ten Colombian

staff members to acquire additional skills abroad prior to the departure of the international experts. Equipment for an amount of \$150,000 has been imported under the Special Fund allocation for assisting the Institute in establishing the laboratories required for the higher level of research to be initiated under the project.

The Government contribution included the provision of Colombian counterpart engineers and technologists to work with and be trained by the international staff. In addition, the Government has paid for part of the equipment, the local administrative staff and other operating costs.

A request for extending assistance for four additional years in a second phase of the project has been submitted to UNDP (Special Fund). The purpose of the project is to continue, and expand assistance to the country's industries, including large, medium and small enterprises. In particular, extension services to local industries would be strengthened through the organization of regional offices of the Institute; feasibility and planning studies will be undertaken for the establishment of industrial estates.

Annex II

UNDP (SPECIAL FUND) PROJECTS RELATING TO SMALL-SCALE INDUSTRY, MANAGEMENT  
DEVELOPMENT, TRAINING, PRODUCTIVITY, INDUSTRIAL STUDIES  
AND DEVELOPMENT AND INDUSTRIAL RESEARCH  
(as of 19 January 1967)

<u>Project by country</u>	<u>Executing Agency</u>	<u>Approved by Governing Council</u>	<u>Project duration (years)</u>
<u>1. Small Industry Service Institutes or Centres</u>			
1. Ceylon: Small Industry Service Institute, Vavuniya	ILO	Jan 1962	5
2. Chile: Department of Small Industries, Servicio de Cooperación Técnica	ILO	Jan 1966	5
3. Greece: Small Industry Development Service, Athens	ILO	Jan 1967	5
4. India: Training and Advisory Services in Text, Leather and Wood Working for the Plastic and Other Industries, Calcutta, Bombay	ILO	Jan 1966	5
5. Israel: Small Industry Advisory Service, Tel Aviv	ILO	June 1965	4
6. Korea (Republic of): Extension Services department in the Light Industry Bank, Seoul	ILO	June 1966	4
7. Panama: National Service for Small and Medium Industries (CENAPI), Colón	ILO	June 1966	4
8. Singapore: Light Industries Service Unit	ILO	Jan 1965	5
9. Thailand: Small Industries Service Institute, Bangkok	ILO	Jan 1965	5
10. United Arab Republic: Institute of Small Industries, Kubba (phase I)	ILO	Jan 1962	4

II. Industrial estates

1.	Iran:	Establishment of an Industrial Estate, Ahwaz	UN	June 1963	5
2.	Uganda:	Small Industries Development Programme and Establishment of an Industrial Estate, Kampala	UN	Jan 1966	5

III. Management development, training and productivity centres

1.	Algeria:	Technical Service and Instructor Training Centre for adult Vocational Training, Algiers	ILO	June 1964	4
2.	Algeria:	National Institute of Productivity and Industrial Development, Algiers	ILO	June 1966	5
3.	Argentina:	Expansion of facilities for Management Development and training of Specialist, Supervisory and Skilled Personnel	ILO	Dec 1959	5
4.	Bulgaria:	Management Training Centre for Managers and Administrators, Sofia	ILO	June 1966	5
5.	Cameroon:	Centre for Regional Staff Training and Productivity, Yaounde	ILO	Jan 1962	4 1/2
6.	Chile:	Management Development and Productivity Centre, Valparaiso	ILO	Jan 1967	5
7.	Chile:	Instructor and Foreman Training Centre, Santiago	ILO	May 1961	5
8.	China:	Auto Technician and Instructor Training Centre, Taipei	ILO	May 1962	4
9.	Czechoslovakia:	National Vocational Training Service for Industry	ILO	Jan 1967	4
10.	Colombia:	National Instructor Training Centre (field work completed)	ILO	Dec 1959	4
11.	Colombia:	National Vocational Training Service (NVT)	ILO	May 1962	4
12.	Colombia:	In-Plant Training Programme	ILO	Jan 1967	4

13.	Congo (Democratic Republic of): National Institute of Vocational Training	ILO	June 1964	5
14.	Costa Rica: National Institute of Apprenticeship (INA), San José	ILO	Jan 1967	5
15.	Cyprus: Vocational Training and Management Development, Nicosia	ILO	June 1963	4 1/2
16.	Ghana: Management Development and Productivity Institute, Accra	ILO	Jan 1967	5
17.	Greece: Training of Technical Teachers for Vocational Industrial Schools	UNESCO	Jan 1963	4
18.	Guinea: National Centre for Management Development and Training, Conakry	ILO	June 1966	6
19.	India: Industrial Instructor Training Institute, Calcutta (field work completed)	ILO	May 1959	4
20.	India: Regional Labour Institutes at Calcutta, Madras and Kanpur (field work completed)	ILO	Dec 1959	4
21.	India: Vocational Training Scheme for Industrial Trades	ILO	Dec 1960	4
22.	India: Central Instructor Training Institute, Madras (field work completed)	ILO	May 1961	4
23.	India: National Institute for Training in Industrial Engineering, Bombay	ILO	Jan 1962	5
24.	India: Central Instructor Training Institute, Hyderabad	ILO	Jan 1961	5
25.	India: Central Instructor Training, Ludhiana	ILO	May 1962	5
26.	Iran: Vocational Instructor and Foreman Training Centre	ILO	May 1961	5
27.	Iran: Management Development and Supervisory Training, Teheran	ILO	June 1963	5
28-29.	Iraq: Management Development and Supervisor Training Centre, Baghdad (phase I)	ILO	May 1961	5
	(phase II)	ILO	June 1966	5
30.	Israel: Training of Vocational Instructors, Technicians and Supervisors (completed)	ILO	Dec 1960	5

11. Jamaica:	Productivity Centre, Kingston	ILO	June 1966	5
12. Kenya:	Management Training and Advisory Centre, Nairobi	ILO	June 1965	5
13. Korea (Republic of):	Productivity Centre, Seoul	ILO	Jan 1962	5
14. Libya:	Industrial Vocational Training Scheme	ILO	Jan 1966	5
15. Malaysia:	National Productivity Centre, Kuala Lumpur (field work completed)	ILO	Dec 1960	5
16. Mauritius (UK):	National System of Vocational and Technical Education	ILO	Jan 1966	5
17. Mexico:	National Centre for Industrial Technical Training, Mexico City	UNESCO	May 1963	5
18. Mexico:	National Service of Special Training for Industrial Managers	ILO	Jun 1964	5
19. Morocco:	Institute for Instructor Training for Leather and Textile Workers	ILO	Jan 1967	4
20. Morocco:	National Instructor and Foreman Training Institute, Casablanca	ILO	June 1963	4
21. Nigeria:	National Training Scheme for Vocational Instructors and Foremen	ILO	May 1961	4
22. Nigeria:	Video and Film Demonstration and Training project in the Northern Region	FAO	June 1963	4
23. Pakistan:	Management Development, Supervisory and Instructor Training Centre, East Pakistan	ILO	May 1960	4
24. Pakistan:	Management Development and Industrial Training Centre, East Pakistan	ILO	May 1960	4
25. Peru:	National Instructor Training Centre (field work completed)	ILO	Dec 1959	4
26. Peru:	National Vocational Training Service for Industry (8 Staff)	ILO	Jan 1966	4
27. Poland:	Training, Managerial, Specialist and Supervisory Personnel (field work completed)	ILO	May 1959	4

48. Romania:	Industrial Management Training and Development Centre, Bucharest	ILO	Jan 1967	5
49. Senegal:	Instructor and Foreman Training Centre (field work completed)	ILO	May 1964	5
50. Somalia:	Training Centre for Hides, Skins and Leather Development, Mogadiscio	FAO	Jan 1967	5
51. Suram:	Hides, Skins and leather, development and training project	FAO	Dec 1960	4
52. Sudan:	Management Development and Productivity Centre, Khartoum	ILO	June 1964	5
53. Sudan:	National Vocational Training Scheme	ILO	June 1965	9
54. Syria:	Management Development and Productivity Centre, Latakia	ILO	June 1964	5
55. Tanzania (United Republic of):	National Institute for Productivity, Dar es Salaam	ILO	Jan 1965	5
56. Thailand:	Management Development and Productivity Centre	ILO	May 1964	5
57. Trinidad and Tobago:	Management Development and Productivity Centre	ILO	June 1964	5
58. Tunisia:	National Vocational Training and Productivity Institute, Sousse (field work completed)	ILO	Jan 1966	5
59. Tunisia:	National Vocational Training Institute, Sousse	ILO	Jan 1966	5 1/2
60. Tunisia:	National Productivity Institute, Tunis	ILO	Jan 1966	5 1/2
61. Turkey:	Turkish Management Development Centre	ILO	Jan 1966	5
62. Turkey:	Occupational Safety and Health Centre, Ankara	ILO	Jan 1967	4
63. Uganda:	Management Training and Advisory Centre, Kampala	ILO	Jan 1965	5
64. United Arab Republic:	Vocational Instructor Training Institute (field work completed)	ILO	Dec 1960	4

10. United Arab Republic: Occupational Safety and Health Institute, Helicopolis	ILO	Jan 1967	4
11. Uruguay: Vocational Instructor Training Institute, Montevideo	ILO	Jan 1966	4
12. Venezuela: Venezuelan Institute of Productivity, Caracas	ILO	Jan 1965	5
13. Yugoslavia: Instructor Training Centres. (field work completed)	ILO	May 1959	4

14. Industrial Studies and Development Centres

1. Iran: Research Centre for Industrial and Trade Development	ITC	Jan 1967	5
2. Jordan: Centre for Industrial Development, Amman	ITC	Jan 1967	6
3. Saudi Arabia: Industrial Studies and Development Institute, Riyadh	ITC	June 1965	5
4. Tunisia: (United Republic of) Industrial Studies and Development Centre, Sousse	ITC	Jan 1965	5
5. Tunisia: Special Centre for Industrial Studies, Tunis	ITC	June 1967	5
6. Yemen: Technical Centre of Industrial Studies for the Yemen	ITC	Jan 1966	5

15. Industrial Research Institutes

1. Argentina: Technical Institute	IAISCO	Dec 1960	5
2. Bolivia: General Metallurgical Research Institute	IAI	June 1963	5
3. Kuwait: Centre for Technical Development	ITC	June 1965	5
4. Brazil: Federal Centre of Yaw Research and Technology, Campinas	FAO	June 1963	5



5. Chile:	Institute for the Development of Forest Resources and Industries	FAO	Dec 1960	4
6. Chile:	Institute of Food Science and Technology, Santiago	FAO	June 1963	3
7. China:	Metal Industries Development Centre, Haensun.	ILD	Jan 1965	5
8. China:	Food processing Institute, Changsha	FAO	Jan 1966	3
9. Colombia:	Institute for Technological Research, Bogotá (Phase I)	IF	Dec 1960	4
10. China:	Food processing and development Unit	FAO	Jan 1965	2
11. Greece:	State, Hellenic the forest research Institute, Athens	FAO	Jan 1966	3
12. India:	Central Technical Engineering Research Institute, Bangalore	UNESCO	Dec 1960	3
13. India:	Central Scientific Instruments Organisation, New Delhi	UNESCO	Dec 1960	3
14-15. India:	Institute for Petroleum Exploration, Geophysical (Phase I) (field work completed)	UN	May 1961	3 1/2
	Geological (Phase II)	UN	Jan 1962	3
16. India:	Refining and Petrochemical Division, Indian Institute of Petroleum, Geophysical	UNESCO	June 1964	4
17. India:	National Institute of Foundry and Forge Technology, Ranchi, Bihar	UNESCO	June 1965	4
18. India:	Technical Engineering Research and Development Organisation, Bangalore	UNESCO	Jan 1967	5
19. Iran:	Leather, Furs and Leather Development	FAO	Jan 1965	4 1/2
20. Iraq:	Petroleum Research Institute, Baghdad	UNESCO	Jan 1965	5
21. Israel:	Silicate Institute (field work completed)	UN	May 1961	3
22. Israel:	Industrial Research Centre	IF	Jan 1964	5

20. Korea (Republic of):	Fine Instruments Centre, Seoul	UNESCO	Jan 1965	5
24. Malaysia:	Food Technology Research and Development Centre	FAO	Jan 1966	5
25. Paraguay:	Technical Standards National Institute	UN	May 1962	5
26. Peru:	National Centre for the Development of the Food Industry, La Molina	FAO	Jan 1967	5
27. Poland:	Research and Extension Services for Food Production, Processing and Utilization	FAO	Jan 1962	5
28. Senegal:	Institute of Food Technology, Dakar	FAO	June 1964	5
29. Sudan:	Forestry Research and Education Centre, Khartoum	FAO	May 1961	5
30. Sudan:	Industrial Research Institute, Khartoum	UN	Jun. 1965	5
31. Sudan:	Demonstration and Marketing Research for Improved Hides, Skins and Leather Production	FAO	Jan 1967	5
34. Syria:	Food Processing Project (field work completed)	FAO	Dec. 1960	5
35. Syria:	Technical Staff Institute, Damascus	UNESCO	May 1962	5
36. Syria:	Industrial Testing and Research Centre, Damascus	UNESCO	Jan 1964	5
38. Tanzania (United Republic of):	Forest Industrial Development Planning	FAO	Jan 1967	5
39. Thailand:	Rubber Development	FAO	Jan 1964	5
47. Thailand:	Technological Research Institute, Bangkok	UN	Jan 1964	5
53. United Arab Republic:	Cotton Research Laboratory (field work completed)	FAO	Dec 1960	4





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