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TECHNICAL SERVICES AND FACILITIES FOR
SMALL-SCALE INDUSTRIES

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A SUMMARY LIST OF TECHNICAL SERVICES
AND FACILITIES FOR SMALL-SCALE INDUSTRIES
AND RELATED INSTITUTIONS

Presented by
The Small-scale Industry Section
United Nations
Industrial Development Organization

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

This report contains summary information on the main types of technical services and facilities for small-scale industries and on some of the more prevalent types of institutions providing such services and facilities. The information, presented in the form of a list, focuses on the needs of the smaller industrial enterprises, though some of the services included are also of interest to industries of all sizes and types; thus is the case, for instance, of techno-economic surveys of prospects for industrial development in a given region or area. The functions of certain institutions included in the list may encompass some or all of those described in this report under the heading of other institutions, some of which, in turn, may be departments or agencies of broader scope. The list of services and facilities follows the order of presentation of the topics in the provisional agenda of the International Symposium on Technical Services and Facilities for Small-scale Industries.

1. TECHNICAL SERVICES AND FACILITIES

1. TECHNICAL SERVICES AND FACILITIES FOR SMALL-SCALE INDUSTRIES, INCLUDING INSTITUTIONS PROVIDING

1. Basic studies

(i) Area survey to study the industrial potential of a given area which may be the country as a whole, a region, province, district or town. The area survey provides the basis for a planned programme of industrial development, pinpointing short-term and long-term industrial possibilities and necessary measures of promotion and assistance.

(ii) Industry feasibility studies to determine the economic prospects of establishing and expanding a particular industry or manufacturing a specific product or group of products. The studies provide conclusions and recommendations: number and size of enterprises to be encouraged and their location; production,

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marketing and financing data; investment requirements; cost of production and profitability; and policies and measures for the establishment or expansion of industries.

(iii) Market surveys to provide information on the outlets for given products which are open to existing and potential entrepreneurs, not only to improve distribution and to extend sales but also to assess the feasibility of candidate industries. The market survey also provides information on the potential size of the market, the long-run effect of substitute products and the elasticity of demand.

These activities are essential for formulation of carrying out any programme of industrial development. Drawing up lists of industries whose establishment is desirable in a given location, taking into account the availability of labour, power, raw materials, credit and foreign markets, the possibility of export competition, etc., as well as the objectives, priorities and requirements of the overall industrial development plan, is a requirement for providing orientation to prospective entrepreneurs and diversifying the production of existing units. It is also a prerequisite for planning industrial estates and common service facilities for small-scale industries.

(iv) Field surveys or industry fact sheets for industries with good prospects. These are short pamphlets containing basic information for establishing and operating an industry and a commodity or product: size of plant, type of equipment, production processes, prospective markets, requirements in fixed and working capital, estimate of investment expenditure and anticipated profitability.

2. Measures of assistance to prospective entrepreneurs

(i) Land for current and future requirements.

(ii) Advising on plant facilities, site location; recruitment and training of personnel; availability and prices of raw materials; quality and standards of raw materials or finished products; marketing channels, etc.

(iii) Providing detailed feasibility and pre-investment studies ("bankable" reports) and assisting in formulating applications for credit.

(iv) Advising on incorporation, partnership, co-operative association and other organizational matters.

(v) Advising on selection of land, designing and constructing a factory, plant layout, selection and ordering of machinery and equipment.

(vi) Advising on obtaining building licenses, import licenses, foreign exchange authorizations and carrying out other formalities and steps leading to the establishment, modernization, diversification or expansion of an industrial enterprise.

(vii) Assisting entrepreneurs in obtaining supporting facilities and benefits from various sources, including fiscal and tariff concessions, admission to industrial estates, hire-purchase of machinery, government purchase schemes, and other benefits.

(viii) Carrying out "intensive promotion campaigns", as a co-operative effort of extension workers, bank officials, government officials, etc., to stimulate and facilitate enterprise ownership in new industrial undertakings. During the campaigns, all or part of the above action may be taken.

II. TECHNICAL ASSISTANCE

(i) Advising on utilization of materials, machinery and auxiliary equipment, requirements for new machinery, plant layout, techniques and methods of production, production planning and control, quality control (raw materials, semi-finished and finished products), maintenance and repair, etc.

(ii) Advising on inventory control, cost reduction, recording and control of machine performance, etc.

(iii) Advising on general housekeeping, working conditions (lighting, heating, protection from heating and radiation), accident prevention, and other improvements.

Technical counselling may be provided through consultations, visits to the factories, demonstrations in the plant or in common facility centres, round-table discussions and seminars, technical clinics, training courses for supervisory personnel, or conferences, etc.

Technical counselling is also provided in connexion with financial assistance, advice and assistance being given both to the borrower and the lender.

III. COMMON SERVICE FACILITIES

Common service facilities are provided in areas of concentration of small-scale industries, in particular on industrial estates. The most common technical facilities are:

(i) Tool rooms for the manufacturing of tools and auxiliary equipment such as dies, jigs and fixtures for press work, forging, casting and moulding, and for manufacturing processes in the production of plastic, leather and rubber goods. Tool rooms may also serve as maintenance and repair workshops.

(ii) Testing and quality control laboratories for mechanical, chemical and/or physical testing of raw materials, semi-finished and finished products. The laboratory may also serve as a quality certification centre.

(iii) Workshops for heat treatment, electroplating and finishing, forging, die casting; foundries with moulding, pattern making and sand-casting equipment supplying ferrous and/or non-ferrous castings; woodworking shops performing operations on specialized machinery and seasoning and testing of timber; dyeing, bleaching and finishing works for the textile industry; tool sharpening for wood-working or metal-working industries; and other workshops performing specialized processes for industries of various types.

(iv) Leasing of machinery and equipment, including renting out of expensive portable tools; leasing of hauling and installation equipment.

A variety of other services and facilities may be set up to serve the needs of industries, for instance, warehousing, show-rooms, legal advice, auditing, advertising and publicity, ocean procurement of raw materials, etc. All technical facilities are aimed at increasing productivity, reliability and reducing costs. Common facilities and amenities, such as restaurants, clinics (other than first-aid), fire protection, banking, etc., are beyond the scope of the present survey.

10. RESEARCH AND DEVELOPMENT SERVICES

(i) Studies for the improvement of design in order to increase productivity, adapt designs to suit resources and levels of skills, type and grade of equipment and of raw materials, etc.

(ii) Studies for improvement in designs to meet customer requirements and tastes (existing and potential customers, including export).

(iii) Production equipment design to meet special engineering requirements and features.

(iv) Determination of appropriate quality standards and specifications, quality control and quality certification.

11. PERSONNEL MANAGEMENT

(i) Over-all management advice: Diagnosis of the operational and financial position of the enterprise; organizational structure; delegation of authority; management succession.

(ii) Personnel management advice: recruitment, selection, appointment of personnel, labour-management relations; labour legislation; wage systems, including incentives and fringe benefits, etc.

(iii) Financial management and control: information on sources of financing; assistance in preparing credit applications; advice on bookkeeping, cost accounting and control, budgeting; information on taxes and tariff regulations, etc.

(iv) Management training through general or specialized courses.

VI. MARKETING SERVICES

(i) Market study and research (domestic and foreign);

(ii) Advice on development of sales channels; submission of specifications and sales conditions; assistance in making contact with dealers and negotiating contracts; information on legislation and procedures;

(iii) Advice on distribution patterns, packaging, advertising, sales promotion, and pricing;

(iv) Facilitation of contracts with public authorities under government purchasing schemes;

(v) Facilitation of co-operative marketing schemes, establishment of trade associations, etc.;

(vi) Organization of sales expositions, domestic and foreign exhibitions, sales offices, etc.; use of mobile exhibition vans;

(vii) Selection and training of salesmen.

VII. TECHNICAL ASSISTANCE TO SMALL INDUSTRIES

Assistance to solve research problems of individual small industries includes, among other things:

(i) Testing raw materials and products;

(ii) Investigating use of local raw materials, waste materials or by-products;

(iii) Undertaking research on problems of processing;

(iv) Providing on-site investigations of problems of equipment, processing, etc;

The above functions may be discharged through consultations (visits and correspondence), laboratory work, pilot plant development, experimental and demonstration projects. According to the set-up of the institution, research work may be general or specialized.

(v) Providing laboratory standards of measurement and calibration services;

(vi) Solving standards, quality specifications and assisting in establishing and maintaining quality control procedures;

(vii) Disseminating technical and scientific information of interest to small-scale industries, in particular through question and answer service, bulletins, etc.; organizing training, discussion groups, etc.;

(viii) In many cases, providing economic, technical and managerial extension services to small entrepreneurs.

VIII. FACILITATION OF SUB-CONTRACTING

Besides technical and managerial assistance to small enterprises for production planning and control, improving and maintaining quality, cost accounting and pricing, etc., the facilitation of sub-contracting involves:

(i) Collection of information on prospective demand for parts, components and/or processing and finishing operations from sub-contractors;

(ii) Collection of information on type of operations which potential sub-contractors are in a position to perform; specification of production capacity (available and potential) and other production specifications;

(iii) Bringing together supply and demand; acting as intermediary between sub- and price contractors;

(iv) Assisting the small sub-contractor (e.g., through financing, supply of machines and raw materials) to ensure quality and conformity of production as well as delivery according to schedule;

(v) Advising public authorities on measures for the protection of sub-contractors.

IX. COUNSELLING AND TECHNICAL ASSISTANCE TO SMALL INDUSTRIALIST

(i) Collection of information as a supporting activity of counselling, research and training;

(ii) Collection of information on specific requests of a small industrialist, e.g., for an inquiry and answer service;

(iii) Dissemination of information of general interest to small-scale industry, e.g., through information bulletins.

C. INSTITUTIONS PROVIDING TECHNICAL

AND MANAGERIAL ASSISTANCE

1. Small industry service institutes

Small industry service institutes are multi-purpose agencies promoting and servicing small-scale industries of different types and advising the central or local governments in the implementation of complementary programmes. They are usually

government-sponsored autonomous or semi-autonomous agencies, sometimes departments of ministries of Industry or of Economy, and, less frequently, departments of industrial banks, corporations or other credit institutions.

Their functions include most of those described in the first part of this report: economic, technical, managerial, marketing and financial counselling and assistance, operation of common service facilities, training, liaison with other assistance organizations, etc.

2. Industrial extension centres

In some countries, industrial extension centres are synonymous with small industry service institutes. In some countries, extension centres have the same function as such institutes but their services are reserved to industries of certain types - textiles, leather, metal-working industries, etc.

3. Management development centres

The main purpose of management development centres is to develop and upgrade managerial ability through training and through assistance at the plant level for solving problems of management, including marketing and accounting. Many management development centres also serve as industrial extension agencies and stimulate entrepreneurship, provide technical assistance, carry out feasibility studies, etc. The workshops and laboratories of these centres serve not only for training but also as common service facilities for small-scale industries.

4. Productivity centres

The main function of productivity centres is to improve productivity, principally in industry, through integrated in-plant study, productivity measurement, work study, cost reduction, labour-management relations, etc. Group training and seminars are usually the principal means of carrying out these functions, but many productivity centres also provide technical and managerial counselling to small enterprises, carry out economic research and other developmental work.

As a rule, productivity centres serve industry irrespective of type and size.

5. Production and training centres

In these centres, production and training are combined to reproduce, as closely as possible, actual conditions of industrial operation. In some countries, they are set-up in semi-urban or rural areas. Most centres are specialized in such trades as carpentry, pottery, leather, shoe-making, metal-working, etc.

6. Prototype production and training centres

Centres of this type have been set-up in India in recent years with the objective of developing and producing prototype machinery and training the operative staff of small industries in producing such machinery on commercial lines. The Banket Centre is specialized in training for production of machinery for foundry, wood-working and sheet-metal manufacturing. The Kala Centre, is training for production of prototype machine tools. The Howrah Centre, is training for the production of special machines suitable for small industries such as extrusion machines for plastic industries, electrical instruments for switchboards, etc.

7. Industrial research institutes

The main purpose of an industrial research institute or a technological research institute in a developing country is to undertake - mainly at the request of public or private bodies or industrial enterprises, but also on its own initiative, investigation, research, analysis and testing, and to provide other technical assistance to industry. Some institutes are general-purpose, others are specialized in certain industrial fields. Most are national bodies, a few are regional or sub-regional. Some of them carry out functions of industrial extension centres for small-scale industries.

8. Quality marking and quality certification centres

These centres are quality control units which issue quality certificates or marks for certain products destined for the local market and/or export. Certification mark is a third party assurance to the purchaser that goods have been inspected, tested and certified by, or under the supervision of, a competent agency.

9. Small industry marketing centres

Specialized marketing centres have been set-up in a few countries to carry out market research, promotional research, product design and product pricing studies, bulk purchase of raw materials, contracting of large orders to be distributed among small industries, product inspection, etc. "Marketing clinics" involving and advising on design, goods, quality, packaging, etc., are sometimes held by industrial extension agencies, either in their premises or by visits to producing centres.

10. Export promotion centres or councils

These centres assist small-scale industries in producing and marketing for export, through technical assistance, quality inspection and control, sometimes associated with certification marking, surveys and canvassing of foreign markets,

participation in foreign trade fairs, exhibitions and advertisement abroad, facilitation of export credit and dissemination of information. Export promotion centres are frequently specialized in certain industries.

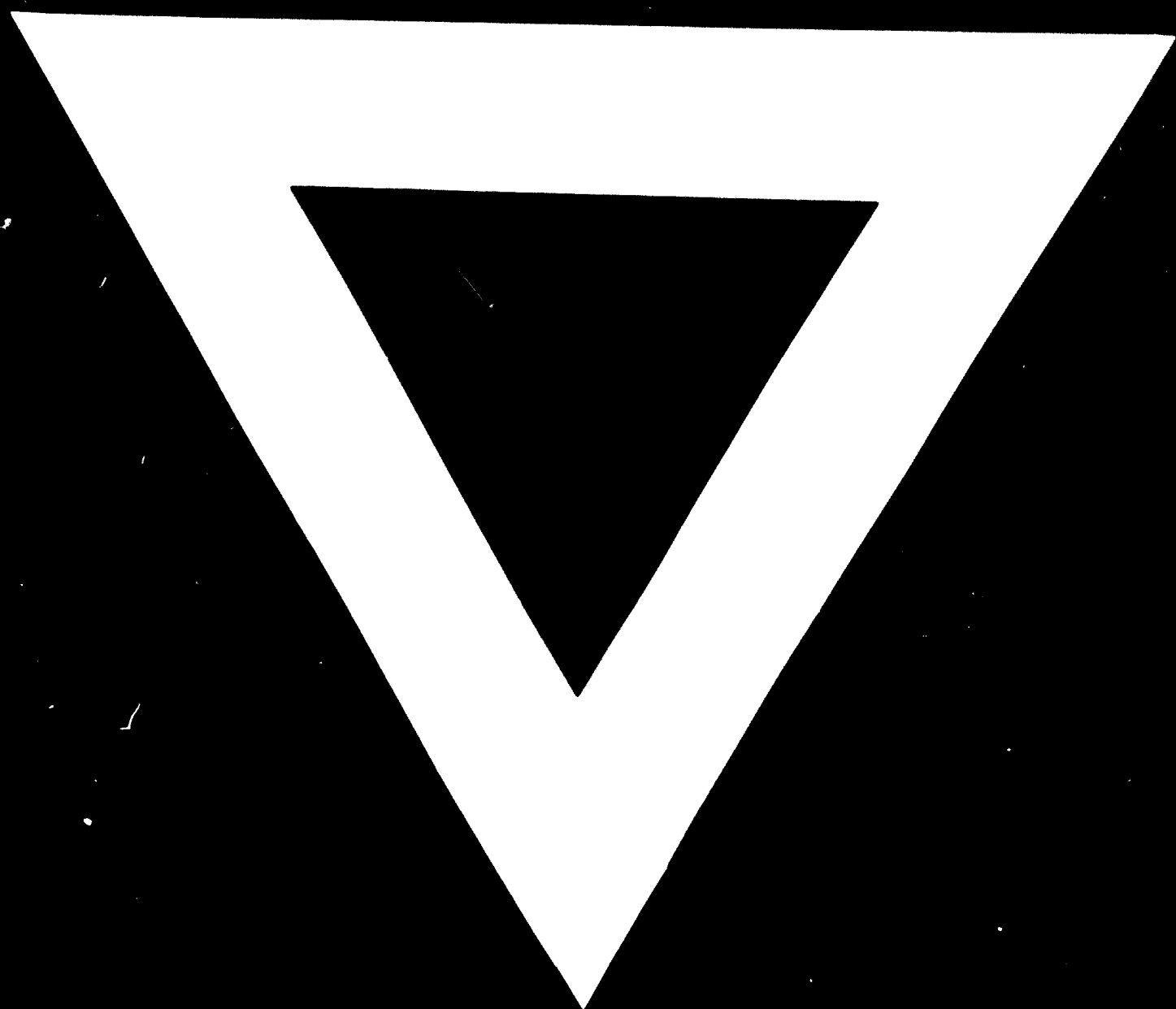
11. Industrial Studies and Development Centres

Industrial Studies and Development Centres have been established recently in a number of countries, some of them on a sub-regional basis. Their functions are to formulate, study and evaluate industrial projects of all types and to assist in their implementation, and to advise governments on all matters relating to the industrial development of the country or countries they serve. Some of them have specific functions in the field of small-scale industry, including not only feasibility studies and formulation of promotion schemes, but also technical assistance to small-scale industries and assistance and advice on establishment of industrial estates.

12. Inter-company contracts exchanges

new type of facility has been recently established in several European countries - the inter-constructors' exchange aimed at bringing together demand and supply for industrial sub-contracting work. The exchanges provide information on requirements of large industries and on available capacity and specialization of small enterprises. Some exchanges are able to provide extension services to small-scale industries.





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