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TECHNICAL ASSISTANCE AVAILABLE FROM UNIDO IN CONNEXION WITH THE  
PLANNING, ESTABLISHMENT AND OPERATION OF INDUSTRIAL FREE ZONES  
AS INCENTIVES FOR THE PROMOTION OF EXPORT-ORIENTED INDUSTRIES

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SUMMARY

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IV. SELECTED PRACTICAL EXAMPLES OF TECHNICAL ASSISTANCE PROJECTS  
CARRIED OUT BY UNIDO IN FIELDS RELATED TO INDUSTRIAL FREE ZONES

## I. INTRODUCTION

Improvement of international trade conditions has been given first priority among the measures to be taken by the world community during the Second United Nations Development Decade. Special stress has been made on the diversification and expansion of the exports of manufactured and semi-manufactured goods from developing countries.

Major stimulus to the development of manufacturing industries in developing countries has not surprisingly been provided by import substitution programmes carried out under substantial and, sometimes, excessive protection measures affecting imports. Due to the relative smallness of national markets of the majority of developing countries, production costs of new industries have tended to be high. Import substitution often exerts heavy pressure on the country's balance of payments through its inherent import component and if the process of import substitution tends to spread indiscriminately over a number of sectors or branches, the advantages of specialization and economies of scale are difficult to obtain. In a number of developing countries, industrialization based on import substitution appears to have reached its limits. Any further continuation would call for technically complex substitution programmes which usually require large markets if a reasonable degree of economic viability is to be attained. It is therefore unlikely that import substitution alone would transform a developing country into an industrial nation competitive in the world markets for manufactured goods.

If industrialization is to proceed at a rate faster than the rate of expansion of usually limited domestic markets for manufactured goods, the export-oriented component should be built into the industrialization programme from its early stages so that, when gradually expanding, it forms a significant part of the market basis for industrialization itself. It would obviously be unrealistic to believe that the developing countries with their own resources of technology could enter the production of the most sophisticated goods on equal terms with the industrially advanced countries. An analysis of trade flows in manufactured products reveals

however, that among traded products there are many final products, components and parts that can be produced in developing countries.

A high degree of specialization is necessary if export-oriented development of manufacturing industries in developing countries is to be embarked upon. No small country, and not only a developing one, can support technological progress over the whole spectrum of manufacturing industries. The selection of industries to be developed or expanded is therefore of crucial importance to the success of an export-oriented industrialization programme.

UNIDO responsibilities in assisting the developing countries in the promotion of export-oriented industries cover both the formulation of appropriate policies and advising on suitable techniques. The technical assistance by UNIDO operates at the Government level, sectoral level, and at the company level. Technical assistance available from UNIDO could be classified according to its functional orientation as follows:

- a) Assistance in the identification and selection of manufacturing industries with export potential;
- b) Assistance in formulating policies and measures for the development of the industrial export sector;
- c) Assistance in upgrading production standards of export-oriented industries and raising levels of export efficiency.

UNIDO activities aimed at assisting the interested developing countries in the planning, establishment and operation of industrial free zones occupy an important place among those classified above. This is especially so in view of the recent trend signifying the gradual move from the traditional type of a commercial free zone with its main function as warehousing, distributing and re-exporting depots to an industrial free zone designed to manufacture industrial goods for exports. Industrial free zones can indeed serve as a means to build an expressly export-oriented nucleus of the country's manufacturing industry.

UNIDO assistance to interested Governments in the field of industrial free zones consist mainly of carrying out pre-feasibility and feasibility studies on the establishment of free zones. This subject is dealt with

in other papers presented to the Training Workshop. The present paper concentrates on auxiliary technical assistance programmes that can be obtained from UNIDO in connexion with the planning, establishment and operation of a free zone at various stages and aspects of the decision-making process.

## II. PLANNING, ESTABLISHMENT AND OPERATION OF AN INDUSTRIAL FREE ZONE

The establishment of an industrial free zone entails extensive planning and preparations during the process of which a number of aspects come into consideration. Industrial free zone is bound to have a considerable impact on the economic and industrial development of the region in which it is located and consequently on the national economy as a whole. Its establishment should therefore be integrated with the overall industrial development programme for the region concerned and form a part of the country's development programme.

Apart from its potential impact consisting of increasing the exports of manufactured and semi-manufactured products under especially favourable circumstances, industrial free zones may be conducive to attaining other economic goals such as creating new job opportunities, encouraging new investments both domestic and foreign, aiding the infrastructure development, assisting in raising the technological and economic standards of manufacturing industries, contributing to the overall development of the region concerned etc.

The location of the free zone is of great importance from the point of view of the access to the sources of raw material supply as well as to the transportation facilities necessary for exporting the processed products from the zone.

Assuming that the location of the zone has been decided upon, an important question arises as to the type of industries which should populate the zone. Should these be labour-intensive industries taking advantage of available labour force in the zone's region, or else should one concentrate upon sophisticated, usually capital-intensive industries using modern production techniques ? What productive resources are available or could be developed and which industrial branches could

make best use of existing and forecasted demand situation on the foreign markets that come under consideration ?

Inter-related with the former set of aspects to be considered are problems related to the scope of incentives to be made available for local and foreign entrepreneurs. Imports of machinery and equipment as well as of required material components into the zone are usually duty-free. Shall a certain type of standardized factory buildings within the zone be made available for rent, or for sale ? Granting of tax holidays, preferential rates for rent of land, services, transportation etc., are other aspects to be considered.

In many instances it has proven easier to start the manufacture of components and parts on the basis of subcontracting rather than to embark immediately upon producing the finished products. This is particularly true of sophisticated industrial branches such as mechanical and electrical engineering. Another set of problems arises in connexion with the need for training local personnel. Should this aspect be left at the discretion of the manufacturers or else, would it serve the attainment of overall economic goals if certain training programmes are run by the administration of the zone ?

Finally, it takes a good product to export to competitive markets. Its quality, functional properties, external finish, packaging etc., should be adapted to the standards accepted at the foreign market for the like products. The industry should be willing and able to keep pace with the technical and technological progress taking place elsewhere in the world. The process of product development and adaptation is a continuous one, and will be as important at the early stage of establishing an industrial free zone as throughout subsequent years of its operation.

### III. UNIDO TECHNICAL ASSISTANCE RELATED TO THE PLANNING, ESTABLISHMENT AND OPERATION OF AN INDUSTRIAL FREE ZONE

UNIDO assistance normally consists of rendering services of international experts for the period of time required for completing the assignment concerned. The experts serve in advisory capacity and present their suggestions and recommendations to appropriate authorities

in the developing country. It is a matter for the relevant authorities to adopt, modify, or amend their recommendations.

A number of technical assistance programmes have been developed by UNIDO that are capable of assisting the interested developing countries in matters related to the planning, establishment and operation of an industrial free zone. These programmes are briefly discussed in the present chapter.

#### 1. Selection of Industries

By definition, export-oriented industries are expected to be able to compete on foreign markets with the products from other countries including industrially advanced countries. Efficiency ought to be therefore the distinguishing feature of such industries.

When approaching the problem of the identification or selection of potential export-oriented industries, the notion of comparative advantages is often evoked. Indigenous raw material, special labour skills or, generally, an abundant supply of a production factor of unique features having a bearing on the costs of the manufactured products, can form comparative advantages. The principle of comparative advantages is at present, however, far removed from the reality of many developing countries. It is static, it ignores demand limitations, assumes homogeneity, mobility and substitutability of production factors in any country. This is not true for the majority of developing countries. Many economists consider, therefore, that - with respect to developing countries - a dynamic economic approach is required. However, in the absence of a comprehensive dynamic theory of comparative costs, the only alternative to provide workable criteria for the selection of industries is to use a number of generalizations and rational judgement based on related experience.

UNIDO technical assistance in this field is usually provided in the form of a team of highly qualified international experts, who work closely together with the respective local authorities. The teams are so composed that they are in a position to prepare integrated market and export production pre-feasibility and/or feasibility studies.

If market surveys on particular manufactured products are not readily available, co-operation with the UNCTAD/GATT International Trade Centre could be secured for preparing such market studies. An important aspect to be kept in mind in this connexion, are the possibilities opened by the generalized system of preferences for developing countries. UNIDO is in a position to analyse productive resources of developing countries to identify products and product categories where new industries could be developed or existing industries expanded to take advantage of preferential offers by industrially advanced countries.

For the purpose of a preliminary and general orientation with respect to specific industries considered for possible development, UNIDO collected data on a number of existing manufacturing establishments. These analytical data are designed for use in the fields of project planning, policy formulation, management and regional developments. UNIDO Profiles of Manufacturing Establishments<sup>1/</sup> give a description of existing industrial establishments in various sectors and various countries of the world. Only a limited effort has been made to standardise the observations collected. Generally the information given would indicate the product mix manufactured by the unit, give data on fixed capital assets, inventories, labour, annual production, intermediate inputs, value added, information on the unit's expansion, future plans etc.

The data naturally subsume a number of factors peculiar to given establishments such as markets, accounting practices, environmental conditions etc. The user who will be interested in programming norms is therefore expected to conduct his own preliminary analysis in cross-establishment, cross country and/or cross-industry terms, in accordance with his own particular needs. The data as such could, however, be used for purposes of general orientation to assist the preliminary selection process through the knowledge of "living" examples of manufacturing establishments in various countries.

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<sup>1/</sup> Volume I (ID/SER.E/4) Sales No. E.67-II.B.17, Volume II (ID/SER.E/5) Sales No. E.68.II.C.13, Volume III (ID/SER.E/6) Sales No. E.71.II.B.12.

## 2. Product Adaptation and Development for Exports

Inadequacies in product design, quality, functional properties, external finish, packaging or high costs and irregular deliveries are most frequently given as reasons for not accepting manufactured exports from developing countries at the markets of the industrially advanced ones. Exact requirements of foreign markets are often not sufficiently known to the manufacturers in developing countries as the latter lack direct contacts with foreign markets. On the other hand, if appropriate changes and improvements in specific products could be implemented, these products might well be made acceptable to the advanced markets unless trade barriers, freight charges or other commercial factors are not prohibitive or difficult to overcome.

The aim of the UNIDO Pilot Programme on Product Adaptation and Development for Export-Oriented Industries in Developing Countries is to supply the manufacturers with detailed and very specific know-how on potential export products and with expertise, if necessary, to enable them to manufacture such products according to the specifications, standards and other requirements existing at the selected export market. The Programme represents thus highly pragmatic means of upgrading the production standards in selected export-oriented industries.

Co-operation of the advanced partner country's importers, wholesalers, marketing experts, designers, technologists and quality experts is envisaged in the Programme. Procedures used for carrying out individual projects within the Programme are being kept flexible to suit particular situation and needs of the interested developing country. Transfer of know-how required might take place in the developed country chosen as a partner for the particular project or in the developing country concerned. Should the need for a more systematic training on adapting or developing manufactured products for exports exist, short-term product-oriented training may be also provided under the Programme.

It should be noted here that the UNIDO Programme does not provide assistance in the export selling process. The assistance is oriented exclusively towards assisting the industrial units to reach production standards and efficiency levels enabling to produce export goods that would suit the requirements of foreign markets. Contacts with importers

and marketing experts in the developed partner-country are therefore the means to identify the market requirements for specific products, so that these could be translated into the production process in the developing country. Should the need for improved marketing techniques in connexion with the exportation of products concerned arise, the co-operation of the UNCTAD/GATT International Trade Centre could be secured for assistance in this field.

Brief outline of the pilot Programme on Product Adoption and Development for Export-Oriented Industries may be found in Annex 1. Assistance under the Programme could be used by an industrial free zone in the development of products for exports as well as in improving existing products so that they better suit the requirements of foreign markets.

### 3. Export Production Techniques

To create greater awareness of the importance of measures to be undertaken at the company level with a view to the techniques adopted for exporting companies, UNIDO has included in its training programmes a special section on export production techniques. The training is practically oriented and enables participating executives from the developing countries to get an insight into the organization and operation of a successful exporting company. The stress of the programme is on aspects stipulated in Resolution 17 (III) of the Industrial Development Board<sup>2/</sup> which requested UNIDO "to give special emphasis to standardization, quality control, product improvement, design, packaging, and similar measures ..... aimed at improving the market acceptance and competitiveness of industrial products from developing countries".

Participating in the above training course are industrial executives concerned with exports of manufactured products from developing countries. The courses are normally divided into two parts. First part consists of a two-week seminar-type lectures and discussions on the above mentioned aspects. Second part, of four-week duration, is designed as practical in-plant training in a manufacturing company in a developed country. The participants are divided into small groups and visit those company departments which are directly concerned with the production and exportation of manufactured products. Number of participants in each

<sup>2/</sup> Resolution 17 (III) of the Industrial Development Board, adopted on 13 May 1969.

training course is limited to twenty.

The last Training Course was held in April-May 1971 in Belgium. Co-operation of the Belgian Productivity Centre and of the Centre for Industrial Design was secured. The course will be repeated in 1972.

#### 4. International Subcontracting

International subcontracting represents a frequent practice between industrially advanced countries. Although it is still a rare occurrence between developed and developing countries, some firms in industrially advanced countries have already reached for the developing countries for the supply of certain parts and components for their final products. The terms of subcontracting arrangements normally provide not only for various inputs such as know-how, technology, finance, assistance in management and raw materials but also for the access to the partners' market.

Subcontracting arrangements among firms in developed and developing countries represent one of the ways to initiate the export-oriented industrialisation process in developing countries. Parts and components are being manufactured in accordance with the standards and specifications supplied by the firms in developed countries and often under their technological supervision. Product development, technological processes and quality control functions are therefore taken care of basically by the developed partner. Parts and components are moreover produced for a secured market. Marketing which usually represents a difficult problem for producers in developing countries is thus also made easier.

International subcontracting is most widespread in the engineering industry (non-electrical and electrical machinery, electronic apparatus, automobile industry). This is so because of specific features of both the products and manufacturing processes in the engineering industry that allow for the separation of production or processes in time and space. Moreover, in case of many engineering products, the technological minimum scale required for efficient operation is not excessively large. Engineering industries are generally not highly resource-dependent and contain a high proportion of value added. In addition, this sector is a major breeding ground for new skills, particularly those associated with technological progress in the manufacturing industry.

Among other industrial sectors suitable for subcontracting arrangements, ready-made clothing industries and optical product industries could be mentioned.

It appears that considerable scope exists for expanding international subcontracting arrangements between firms in developed and developing countries. Actual expansion would however depend on the scope of advantages to be derived from such arrangements by each of the partners.

The firms in industrially advanced countries would look for supply of parts and components of required quality that are ultimately cheaper in comparison with their own production or alternative sources of supply. Lower labour costs in developing countries might provide for such advantageous position provided they are not offset by low productivity.

It is, however, extremely difficult at present for the two partners to get together and discuss the possibilities for subcontracting arrangements, due to the existing lack of contacts between manufacturers in developing and developed countries. Firms in the United States, Europe, Japan, Australia and also in several Eastern European countries have now indicated to UNIDO their interest in stimulating the manufacturing of parts and components in the developing countries.

UNIDO International Subcontracting Programme has been designed to overcome the difficulties just mentioned. UNIDO intends to act as an intermediary between industrial firms in developed countries looking for the supply of components and potential subcontractors in developing countries. In doing so, UNIDO will locate specific firms interested in subcontracting a portion of their operations to developing countries, locate firms in developing countries able to participate in such potential subcontracting arrangements and provide technical, legal, and economic advisory assistance to potential subcontractors in negotiating the subcontracting arrangements. In the identification of opportunities for subcontracting arrangements, UNIDO is making use of special interregional advisers and consultants recruited for the purpose of servicing the Programme.

An outline of the International Subcontracting Programme is given in Annex 2. Developing countries wishing to make use of the technical

assistance services available under the Programme are invited to request UNIDO through established channels. It would appear that this Programme could be of special interest to industries in an industrial free zone.

5. Investment Promotion

A programme of investment promotion designed to attract entrepreneurs to establish industries in the industrial free zone may become particularly important in a developing country. Current flow of resources into industry from both domestic and external sources is often inadequate compared to the needs of developing countries and also compared to the needs of developing countries and also compared to the realizable potential.

UNIDO has therefore developed a programme to assist developing countries in promoting the transfer of capital and know-how at the project level. The programme is concerned with specific industrial projects whose financial, economic and technical viability has been established by at least a preliminary feasibility study or a market survey. The techniques used in the programme can be applied to all the various forms in which capital and know-how are transferred, i.e. external financing, joint ventures or direct foreign investment, depending on the requirements and policy followed in this respect by the recipient country.

In pursuing the programme, UNIDO has established a portfolio of industrial projects at various stages of preparation for which foreign contribution is sought. Parallel to this, UNIDO collects information on potential partners from both the public and private sectors of developed countries specifying their areas of interest and the type of contribution they are ready to propose. UNIDO's role is the one of an intermediary and, if so requested, of an advisor to the partner from developing countries.

Investment promotion meetings were initiated by UNIDO at a national level and later on at regional level. Meetings in Tunis and Rabat in 1969, First Asian Meeting to promote specific industrial projects in Asian countries in Manila in 1970 and the Second African Meeting in Nairobi in 1970 are examples of these activities. Although it is too early to evaluate the results of those meetings in terms of investment achievements it can be said that they brought forward specific projects and stimulated the interest of business and financial circles from industrially advanced

countries. Two more meetings of this kind will be held in late 1971; one in Africa (Abidjan) and the other in Asia (Singapore).

#### 6. Industrial Policy Incentives

The implementation of an industrial development programme may often fall short of the established targets and goals owing to the fact that the need to formulate a consistent set of policy instruments, measures and incentives has not been fully recognized. To given objectives of the industrialization programme, a set of appropriate industrial measures to achieve them should be formulated.

In relation to the task of promoting export-oriented industries in developing countries, industrial policy incentives are especially important because of the level of relative handicaps such industries are to overcome. This is also true for industries to be established in free zones. Incentives like duty-free import of machinery, raw materials and components, various draw-back systems, tax-grace periods, tax reductions, preferential financing facilities should be carefully considered so as to provide a well-balanced, efficient system conducive to the expansion of export-oriented industries. Special care is to be taken in calculating the expected impact of such incentives on the fulfilment of the targets set for in the national development programmes and plans. Cost-benefit analysis is of particular importance here as the supporting of inefficiency should in the long term be avoided.

Advisory services by UNIDO international experts are available upon request for the formulation of a set of industrial policy incentives that may be required for the specific case of the export-oriented industries and the establishment of export-oriented industrial free zones.

#### 7. Industrial Project Evaluation and Implementation

The formulation of sound projects is of great importance in industrial development. Careful and systematic scrutiny of proposed projects, based on a thorough investigation of their economic and technical feasibility, is indispensable in selecting viable projects and in committing financial and technical resources to them. Commercial and national economic profitability are the obvious and most important criteria of industrial project evaluation.

The proposed project should not only earn acceptable rate of return but should also be beneficial to the national economy. These two objectives do however, not always coincide. For a commercial entrepreneur, the project choice is a relatively simple exercise. For a project evaluator, the picture is however more complex not merely because the national interests are not easy to define, but also because the interpretation of these interests by each planner may be different. Social benefit-cost analysis is used as an approach to judging the impact of projects on the economy and evaluating this impact by using parameters reflecting national goals and social objectives.

After a project has been chosen, much depends on proper and effective implementation and follow-up. Inadequate implementation can result in a considerable waste of capital and efforts. Procedures for the programming of implementation should be dynamic, permitting continuous programming in greater detail as the project progresses as well as continuous re-programming of the original implementation plan in case of unforeseen and unpredictable events.

UNIDO can make available, upon request, technical assistance both in industrial project evaluation as well as in devising operational procedures for programming the implementation of individual industrial projects or group of projects.

#### 7. Industrial Estates

UNIDO assistance available in the field of industrial estates is mentioned here because in some cases the latter can be complementary to industrial free zones. The industrial free zone can make use of the facilities and services of the industrial estate.

The effectiveness of the industrial estate in stimulating entrepreneurship and providing integrated and sustained assistance to small industrialists is being well recognized in the developing countries. The estates should however, not merely offer land, infrastructure and standard factories. Guidance to entrepreneurs in financing, training of manpower fiscal and other incentives and complementary measures are equally important.

The nature and extent of UNIDO technical assistance in the planning and establishment of industrial estates varies in accordance with the scope of services required. A feasibility study on the establishment of an industrial estate, the selection of its location and site, estimating costs for an estate of the required type and site, drawing up of preliminary plans for lay-out and construction, the establishment and operation of common service facilities and the management of an existing industrial estate, could serve as an illustration of types of assistance which UNIDO is capable of providing.

IV. SELECTED PRACTICAL EXAMPLES OF TECHNICAL ASSISTANCE PROJECTS  
CARRIED OUT BY UNIDO IN FIELDS RELATED TO INDUSTRIAL FREE ZONES

Present chapter seeks to illustrate practical examples of some of the technical assistance activities described in general terms in the preceding chapter. In some cases, the names of companies participating in various programmes are being withheld. This applies especially to cases where certain follow-up activities are involved or to those where handling of information on a particular project is rather sensitive because of business interests involved.

1. Feasibility study on the Masan Free Zone, Republic of Korea

Masan Free Export Zone was formally established in January 1970 with the purpose to provide a means of attracting foreign investors to construct and operate manufacturing facilities for processing raw materials into export products. Since the Zone has been considered important to the industrial development strategy of the country and was supposed to serve as an example for possible other projects, the Government asked UNIDO for conducting an overall study of the industrial free zone concept.

Under a contract, an international consulting firm was selected to perform the study with the following terms of reference:

- review of existing implementation plans;
- identification of candidate industries;
- examination of recent trends in the international markets;
- analysis of the availability of the labour force;
- general survey of transportation and utility requirements;
- development of physical plans;
- overview of engineering phases;
- economic and financial studies;
- analysis of current bottlenecks and problems.

The team of experts consisted of the following professions:

Team leader, engineer/planner, industrial civil engineer and industrial finance expert. The members of the team spent altogether 13½ man-months of on-the-spot and home-office work. The team evaluated the existing plans and programmes for the Masan Export Free Zone in the context of maximising the return to the country's economic and social development. It presented detailed findings, conclusions and recommendations to the respective authorities. The team found the existing development plans for the post part to be technically sound and well conceived. The team recommended that provisions be made for the eventual integration of industries in the zone into the domestic economy and that the development period of the zone be extended to enable achieving improvement in certain aspects of operation.

Model request for technical assistance on industrial free zone feasibility study and a model job description are attached as Annexes 3 and 4 for easy reference of those developing countries which might be interested in receiving such assistance.

## 2. Selection of potential export industries and products

A team of four international experts was sent to Argentina to study the possibilities for the promotion of export-oriented industries. Co-operation of the UNCTAD/GATT International Trade Centre was secured for the mission. The terms of reference for the team as formulated by the Government were the following:

- to study the supply position in four selected industrial sectors;
- to investigate the possibilities of penetrating selected external markets;
- to prepare recommendations aimed at assisting the industry and other institutions in the promotion of manufactured exports.

Agricultural machinery industry, machine tools industry, processed leather industry and leather products industry were the sectors selected for the detailed examination. The team found that in the four sectors there were significant possibilities for a substantial increase of exports provided that a series of specified measures was adopted. A set of recommendations was, to this end, formulated for the industry, and another for the Government institutions. The recommendations formulated for the industry included measures related to production techniques, product adaptation and development, standardization, subcontracting, quality control and the formation of Export Groups. Those formulated for the Government authorities dealt with sectoral studies, technological research, system of incentives, export market studies and with the proposal to establish a co-ordinating institution for export promotion.

### 3. Programme on Product Adaptation and Development

As explained earlier, this programme is still in its pilot stage. It is supposed that after enough practical experience has been accumulated, a major technical assistance project will be designed in order to allow for the participation of a greater number of developing countries. Currently, activities under the pilot programme are under varying stages of implementation in ten developing countries. In Afghanistan, The Arab Republic of Egypt, Morocco, Pakistan, the Philippines and Tanzania the pilot projects are oriented towards European markets (Federal Republic of Germany and Sweden). For pilot projects in Brazil, Republic of Korea, India and Iran, the developed partner country is the USA. Co-operation with relevant institutions in the developed countries mentioned has been established for the specific purpose of carrying out the individual pilot projects.

Among products selected by the participating developing countries for adaptation and development through the identification of specific improvements needed are leather products, sporting goods, cutlery, surgical instruments and handtools, canned food and fruit, home furnishing

products, clothing articles, specialized rubber products, wooden products and furniture and spectacle frames. Co-operation is being sought from the UNCTAD/GATT International Trade Centre in cases where specific marketing problems connected with particular products are foreseen.

#### 4. International Subcontracting

As discussed in the preceding chapter, UNIDO acts under this Programme as an intermediary between industrial firms in developed countries and potential subcontractors in developing countries. Although the programme only became operational in February 1971, 17 specific offers have to date been received from firms in the industrially advanced countries. For a number of them suitable partners have been identified and contacted in the developing countries. In certain cases, negotiations on important contracts have already been finalized through the intervention and with the assistance from UNIDO.

Specific offers have been received from Austrian firms and channelled mainly to the Far East, Asian and Mediterranean developing countries. Offers concern manufacturing and assembling of water pumps, relays, optical lenses and tractor parts. Subcontracting offers have also been received from firms located in the Federal Republic of Germany. One of the firms is interested in transferring the production of lathes to a Far Eastern country, another firm wishes to subcontract children's ready-made garments, yet another is interested in different moving toys, and finally a firm is interested in subcontracting tractor and truck gear boxes. Offers have also come from Belgian firms.

In order to facilitate the selection of a suitable partner in developing countries for the offers received, UNIDO has started building up a card system with detailed information on the number of dynamic firms in developing countries. The data give information on the machine park available, unutilized production capacity, indications on production costs etc. Matching the two partners together will thus become more flexible in the future.

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PROGRAMME ON PRODUCT ADAPTATION AND DEVELOPMENT  
FOR EXPORT-ORIENTED INDUSTRIES

Background

In analysing the causes for the relatively low volume of non-traditional exports from developing countries, UNIDO has come to the conclusion that a lack of export product know-how is, in large measure, responsible for insufficient performance in the export of manufactured goods from the former countries. Inadequate product design, quality, external finish, packaging and prices are cited most frequently as grounds for not accepting export manufactures from developing countries on the markets of the industrially advanced countries. At the same time it has been found that appropriate product improvements would often make the product acceptable, unless trade barriers or other restrictive trade practices are practically prohibitive.

Specific requirements laid by the foreign markets on products of export interest of developing countries are however little known by manufacturers in the latter countries as there is a lack of contact and communication between potential importers and buyers in developed countries on one side, and manufacturers and exporters in developing countries on the other side. It is therefore felt that UNIDO assistance to manufacturers in developing countries on a very practical level is needed to overcome the difficulties mentioned.

Over-the-board generalized advisory services on export product design, quality and finish are not likely to yield expeditious results in this particular case. It seems that only a selective product-by-product approach may bring about practical positive results in a relatively short time. <sup>1/</sup>

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1/ Hong-Kong, Israel and Japan have successfully proceeded along similar lines vis-a-vis the United States of America market in recent years.



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Within its programme for export-oriented industries, UNIDO has now launched, first on a pilot basis, a programme aimed at helping the interested developing countries to overcome the difficulties mentioned above. By definition, these would be activities on micro (product-by-product) rather than on macro (industry or sectoral) level.

#### Outline of the Programme

A simplified framework of the programme may be described along the following lines:

A developing country which has already some potential in exporting manufactured goods to the markets of developed countries and/or is seriously determined to expand such exports, would bring selected promising export products to a developed country, which does already import or is generally prepared to import similar categories of products from developing countries, provided these goods fulfill the advanced market requirements.

Within a scheme that might be called export product consultations, manufacturers and exporters from the developing country would present a number of selected products to the importers, wholesalers, designers and marketing advisors from the developed country, for checking the market acceptability. If particular products are found unacceptable to the market as they are, the results of these consultations would be brought back to the producers in developing countries with an advice on what specific improvements should be made thereby making the products concerned acceptable. Proper distributing channels for placing the products on the market may also be considered at such meetings. Necessary business contacts for future exports could be established as well. A scheme that would ensure some sort of continuous co-operation by the participants from a developed country in promoting the potential imports should also be considered.

A pragmatic and practical approach should be the distinguishing features of the scheme. Export product consultations are in no way an end in themselves, but rather a means of exposing potential export products and export industries in the developing country concerned to the requirements of the advanced markets.

The ultimate aim of the Programme is the upgrading of the production standards of export-oriented industries in developing countries through the identification of specific improvements needed and through technical assistance directed towards the



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adaptation of product design, improvement of production processes, quality, quality control, packing and packaging etc. It follows logically that for such a scheme to be practical, it should be selective both in regards to importing countries and products to be involved in the Programme. The selection of appropriate export products as well as the selection of a developed partner-country(ies) would therefore be of decisive importance for the success of the whole scheme.

#### Components of the Programme

While it is realized that the procedures and components may vary in each individual project, depending on its specific aims and scope, following components will probably be common:

##### 1. Initial selection of potential export products and of the developed partner-country.

Normally, the developing country interested in receiving UNTDO technical assistance under this Programme, would prepare an initial list of products or product categories to be involved in the project and would select a developed partner-country for the market acceptability test. Relevant institutions in several developed countries have already indicated to UNTDO their willingness in general to participate in the Programme.

UNIDO assistance in the form of a short-term exploratory mission could however be made available to those developing countries who would consider it necessary in order to prepare the framework of the project, draw up the initial list of products and select the developed partner-country.

Product categories to be selected for the project should in principle be quality-wise and price-wise attractive to the market of the developed partner-country.

With a view to the specific and selective nature of the project, the number of products to be included should not be excessive. The scope of the required product adaptation and development in each individual case should also be carefully considered. Basically, such products should be included where reasonably ranged design, quality and/or packaging improvement programmes would result in considerable improvement of their acceptability at foreign markets. Products requiring far-reaching improvements and consequently considerable investment and/or research and development efforts should not be included.

\* Products in which comparative advantages exist in the developing country concerned should be included on a priority basis. Labour-intensity and availability of local raw material



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for their manufacture represent therefore important criteria for the selection. In exceptional cases where local materials are not available, value added in the developing country should be as high as to warrant increased importations of raw or semi-processed materials from abroad. Reasonable assurance of the supply continuity as well as of the capabilities to keep the agreed quality and delivery schedules should exist in respect of the products to be included.

## 2. Export product evaluation

On the basis of the preceding stage, product categories selected will be evaluated mainly with a view to the actual demand situation and to the requirements laid upon such products at the market of the developed partner-country. UNIDO assistance at this stage could best take form of a short-term advisory mission to the developing country concerned. The purpose of the mission will be:

- (a) to screen in detail individual products within the product categories initially selected with a view to the demand at the developed market for such goods;
- (b) to give, for products where only minor adaptation is needed, an indication as to the nature of the improvements required;
- (c) to establish a final list of products whose samples will be subject to the export product consultation procedure;
- (d) to identify the needs for more comprehensive assistance in orientation training on techniques of product adaptation and development for the benefit of manufacturers producing goods for export.

## 3. Export product consultations

Following the previous stage and based upon the final list of selected products it is supposed that detailed identification of product improvements required will take place during the export product consultations to be held in the developed partner-country.

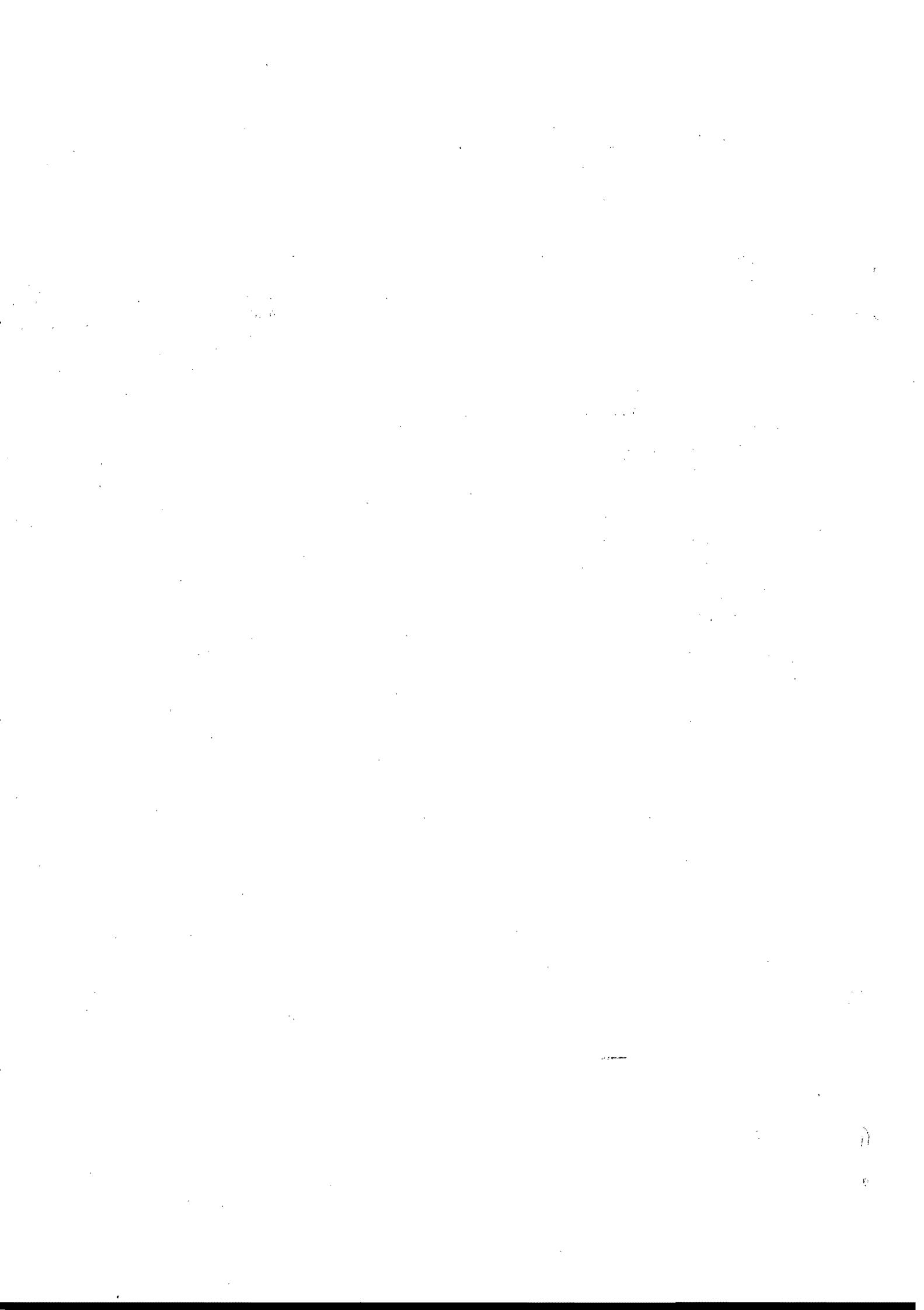
The consultations will take the form of a specialized exhibition of relevant samples. It is expected that involved in this stage will mainly be products that present greater challenge in respect of the improvements required. Selected manufacturers from the developing country concerned will take part in these consultations. From the partner-country, importers, wholesalers, commercial agents, marketing experts and, if necessary, designers, technologists and quality standards experts will be present.



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For each sample exhibited, a detailed list of improvements required will be prepared, based on the consultation between the experts and manufacturers. These lists should then become a part of the production adaptation programme in relevant production units. UNIDO technical assistance in reaching and maintaining the production standards identified during the consultations will be available upon request, as a follow-up of the Programme in such cases where expertise not available in the country will be required. Should the need for improved marketing techniques with respect to placing such goods on the developed partner-country's market arise, co-operation of the UNCTAD/GATT International Trade Centre in the project may also be sought.

It is anticipated that for certain product categories the need may arise for a more comprehensive training for the producers in the developing country concerned on the aims, methods and procedures of product adaptation and development for export. Such training shall be oriented towards practical (based upon individual products, or product categories) orientation on how to proceed in adapting the product to the importers' requirement. Experts in product development may be invited to the developing country concerned to demonstrate on practical examples the techniques to be used in carrying out such programmes. Assistance of this kind could also be made available by UNIDO as a follow-up of this Programme.



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INTERNATIONAL SUBCONTRACTING PROGRAMME

AIDE MEMOIRE

BACKGROUND

International subcontracting also called "contract manufacture", is a form of industrial co-operation, whereby the main contractor orders products or components from a subcontractor, who manufactures or transforms them according to the design and specifications imposed upon by the buyer. The terms of the subcontracting agreements normally provide for assistance, which may range from technical advice, supply of materials to be used, to financial assistance in the form of loans or direct investments.

International subcontracting has become a current feature of the business relations between industrialized countries and is extensively practised in the automobile industry, agricultural machinery industry, electrical equipment industry and also in the confection sector. Unfortunately developing countries have not yet succeeded in capturing a significant share of this new flow of international trade and only a few of those countries have acquired any experience at all in international subcontracting. Managers in industrialized countries have often not given any serious thought

to placing subcontracting orders in developing countries and yet it appears that several European firms are interested in obtaining increased supplies of components from abroad, so that they can fill growing volumes of orders without further taxing their domestic resources. It has been brought to the attention of UNIDO that the supply of equipment from Western Europe has been backordered in many cases due to the lack of capacity for component manufacture. Firms in the United States, Japan, Australia, and also in several Eastern European countries have indicated interest in stimulating the manufacture of components in the developing countries. The main advantages for developing countries of such manufacturing industry are that:

1. It contributes to the diversification of export products and helps prevent a lop-sided export structure with excessive dependence upon foreign exchange earnings from one or just a few products;
2. It creates additional outlets which allows exploitation of economies of scale and greater scope for specialization;
3. It enables developing countries to be competitive since, as the main contractor sells the product under his own trademark, no marketing costs are involved;
4. The manufacture according to strict specifications and under control of the main contractor affords excellent experience and provides manufacturing and export know-how;
5. The subcontracting activity may have a multiplying effect and act as a catalyst in attracting additional capital both to widen the scope of locally added value and to diversify the range of products.

Being convinced that the development of this particular form of co-operation between firms in industrialized and developing countries is of benefit to both, UNIDO is currently preparing a programme to promote international subcontracting involving developing countries.

#### TENTATIVE OUTLINE OF THE PROGRAMME

UNIDO intends to act as an intermediary between industrial firms in developed countries and potential subcontractors in developing countries, and would assume the following functions:

1. Identify in the industrialized countries manufacturing processes amenable to subcontracting in developing countries;
2. Locate specific firms which are interested in subcontracting a portion of their operations to developing countries. For this purpose interregional advisers with experience of negotiating at top management level will be recruited. They will be expected to visit federations of industries, subcontracting exchanges and firms in industrialized countries in order to collect specific subcontracting proposals and evaluate the technical and economical feasibility;
3. Locate firms in developing countries, which are able to participate in such an arrangement;
4. Provide technical, economic and legal assistance to potential subcontractors;

5. Fellowships would be provided to train nationals of developing countries in all phases of these promotional activities.

The developing countries wishing to participate in this programme are invited to inform UNIDO at their earliest convenience. They should also indicate in which fields they have manufacturing potential, or other resources which could be harnessed for subcontracting.

MODEL REQUEST FOR TECHNICAL  
ASSISTANCE ON INDUSTRIAL FREE ZONE  
FEASIBILITY STUDY

The Government attach considerable importance to promoting industries capable of exporting manufactured products to foreign countries with the aim to improve the country's balance of payments. Within the industrialisation development programmes export-oriented industries have been assigned a high level of priority.

In recent years, a number of reports and studies have been prepared by the Government authorities and other institutions on some aspects of establishing an industrial free zone or zones with a pronounced export orientation. It would appear on the basis of these studies that the establishment of such a zone or zones will contribute significantly to the expansion of the country's manufactured exports.

A comprehensive and integrated feasibility study on the establishment of an industrial free zone or zones is, however, needed before a decision could be taken by respective authorities on this question. Technical assistance by UNIDO is therefore requested in preparing this feasibility study.

The feasibility study is to be prepared in the form of a cost benefit analysis from one national economic profitability viewpoint with the aim to ascertain the viability of the establishment of an export-oriented industrial free zone or zones. The study should cover, among others, the following aspects:

- Location and site of the industrial free zone;
- Identification of suitable industries for the zone;
- Outline of legislative and administrative measures required for the establishment of the zone;
- Outline of the institutional framework for the management and operation of the zone.

It is supposed that the elaboration of the feasibility study could be undertaken by two international experts working closely together with their appointed counterparts within a period of four months.

The experts, an Industrial Economist (Team Leader) and an Industrial Civil Engineer will be attached to the Ministry of Trade and Industry and will be expected to co-operate closely with other Government institutions active in the fields of export industries and manufactured exports. Subject to positive findings, further assistance is expected to be provided on the planning of the establishment of the zone as a second stage of the project.

In view of the urgency of the matter it is supposed that the project could best be implemented under the Special Industrial Service Programme.

Urgent attention to this request by UNIDO will be appreciated.

- c) Prepare preliminary recommendations on suitable location, on the identification of suitable industries for the zone, on measures required to promote the establishment of industries within the zone, on the institutional framework for the management and operation of the zone, etc.
- d) Suggest, the type and scope for the follow-up technical assistance by UNIDO for the second stage of the project.

Qualifications:

Industrial economist with extensive knowledge and practical experience in the establishment and management of industrial free zones particularly oriented towards export production.

Language:

English (French, Spanish)

Background Information:

(Brief information on facts and plans related to the development of export-oriented industries in the country, particularly with a view to the establishment of an industrial free zone)



MODEL JOB DESCRIPTION

Post title: Industrial Economist (Industrial Free Zone Expert)

Duration: Four months with possible extension

Date required: As soon as possible

Duty station: with travel in the country

Purpose of the project: To assist the Government in carrying out a feasibility study on the establishment of an industrial free zone or zones oriented towards export production. Subject to positive findings, further assistance is expected to be provided on the planning of the establishment of the zone as a second stage of the project.

Duties: The expert, acting as a team leader, will work together with another expert, an Industrial Civil Engineer. They will both be attached to the Ministry of Trade and Industry. The expert will be expected to carry out the following duties:

- a) Review the existing reports and studies concerned with the establishment of free zone facilities; also review and make recommendations on outstanding applications from the industry for the establishment of these facilities;
- b) On the basis of a thorough study of the present and potential industrial development of the country, prepare a feasibility study on the establishment of an export-oriented industrial free zone in the form of a cost-benefit study from the national economic viewpoint.