



OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.

TOGETHER

for a sustainable future

DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as "developed", "industrialized" and "developing" are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

Please contact <u>publications@unido.org</u> for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at <u>www.unido.org</u>

07859

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

Distr. LIMITED UNIDO/IOD.134 13 December 1977 ENGLISH

DEVELOPMENT OF NATIONAL INDUSTRIAL CONSULTANCY SERVICES*

- A Phased Programme -

prepared by Factory Establishment and Management Section Industrial Operations Division

* This document has been reproduced without formal editing.

id.77-8716

	Contents	Page
1.	Introduction	1
	1.1 Locally Based Industrial Consultancy Can Contribute	1
	1.2 A Possible Operational Approach	2
2.	Range of Industrial Consultancy Services Required	3
3.	An Illustrative Implementation Programme	6
	3.1 Institutional Framework	6
	3.2 Organization and Staffing	8
	3.3 Operational Aspects	12
••	3.4 Phasing of Implementation	14
	3.4.1 Events Leading to Initial Operation	15
	3.4.2 Development In Stages	17
	3.5 Physical Facilities	18
	3.6 Financial Aspects	19
4.	International Technical Cooperation	19
5.	Annex : An Example of Legislation	21

List of Exhibits

Exhibit	1	:	Functional Organization Chart	10
Exhibit	2	:	Illustrative Sequence of Events	16
Exhibit	3	:	Possible UNIDO-Government Cooperation Programme	20

1. INTRODUCTION

1.1 Locally Based Industrial Consultancy Can Contribute

The cumulative expansion and diversification of a nation's industrial base leads inevitably to expanding requirements for high level skills to organize and implement further development. Typically, growth of food products, textile and leather sectors are progressively joined by accelerating development of metal-using and chemical industries ofter paced by those related to rural development, such as agricultural implements, pesticides and fertilizer. In parallel, there are also expanding opportunities to increase the economic effectiveness of current industrial operations by improving accounting and reporting systems, maintenance, quality control, product design, etc.

Many Governments have determined that locally-based consultancy services can make important contributions to their national industrialization programmes.¹/ This document provides a preliminary guide for considering the design of a possible phased programme for establishing, expanding, or strengthening such a service. Since the subject is complex, the following material is only useful as an <u>illustration</u>. There are numerous alternatives and variations which may need to be considered, but which are beyond the scope of a brief publication.

1/Please see The Case for National Industrial Consultancy Services, UNIDO/IOD.125 for an analysis of potential benefits.

- 1 -

1.2 <u>A Possible Operational Approach</u>

It is suggested, as a basis for discussion, and subject to revision in the light of local conditions, that a programme for creating or strengthering industrial consultancy services could be based upon the following operating principles:

(a) <u>Use of Evisting Base</u>

A broad-range (eventually full-range) industrial consultancy service will be developed. As much as possible it will be built around existing skills and existing advisory services provided by local institutions.

(b) Scope of Service

The service will cover managerial, economic and technical subjects related to (i) establishing new and expanded factories, (ii) rehabilitating or otherwise enhancing the performance of existing enterprises (e.g. through product or process adaptation, removal of bottlenecks, better management systems, renovation, etc.) and (iii) improving performance of agencies supporting and coordinating industrial development.

(c) <u>Clients</u>

Prospective clients of the service will, therefore, include i.a. the ministries of economic planning and of industry, development finance institutions, public and private enterprises, holding companies, development corporations, technical R and D institutions, etc.

(d) Professional Staff

In addition to its regular staff the service will draw upon the skills of a broad panel of engineers, scientists, economists and managers, irrespective of principal professionals affiliation, for short-term consultancy assignments.

- 2 -

(e) Funding

The consultancy service will operate as nearly as possible on a full commercial basis (subject to findings of a feasibility investigation).

(f) Policy Instrument

Resources of the service will be employed to ashipt in achieving priority policy objectives of the Government. Such policies will influence selection of tasks, and, i.a., the degree to which resources will be allocated to different industrial branches, large and small industries, etc.

The following sections present further detail regarding possible services to be offered and methods of implementing the service.

2. RANGE OF INDUSTRIAL CONSULTANCY SERVICES REQUIRED.

It may be observed that industrial problems are in many cases inter-functional, or multi-disciplinary. Thus, in order to achieve the desired impact, the range of services must include managerial, economic, and technical elements as needed.

It is presumed that the organization is to render consulting services upon request, mainly to enterprises, Government agencies and public institutions concerned with industrial development. For these clients, two principal groups of consulting requirements have been identified : (1) pre-investment activities and (2) operational assistance. Pre-investment activities involve the entire process of identifying, defining, evaluating, promoting, and organizing an industrial project up to the point where financing is assured and the decision is made to go ahead with implementation. Operational assistance covers acquisition, installation, and start-up of the plant; ensuring that operation of the enterprise meets commercial and technical objectives; and (possible later) expansion and diversification, i.a. An illustrative, not comprehensive, list of consultancy services which may be offered is as follows:

- 4 -

Pre-investment

Either directly, or in association with other local and/or foreign organizations, prepare:

- Techno-economic studies (project, branch or sector level)
- Pre-feasibility and feasibility studies
- Narket, locational and other specialized studies
- Project profiles
- Technological, economic, commercial and financial evaluation of projects
- Terms of reference, invitations for tenders
- Evaluation of bids, or of contractors' work

<u>Project Implementation $\frac{1}{}$ </u>

For implementation of industrial investment projects, assist in :

- Choice of technology and equipment selection, know-how agreements
- Equipment specifications, tendering, bid evaluation, and contracting.
- Nerotiation of agreements (financial, commercial, management)
- Scheduling, monitoring, and control of project implementation
- Plant design and layout
- Detailed engineering $\frac{1}{2}$
- Installation, start-up and acceptance
- Design and implementation of management, production and marketing systems
- Construction supervision $\frac{1}{2}$

 $[\]frac{1}{This}$ complex task will require skills not likely to be available before Phase II.

Operation and Control of Existing Activities

For operation enterprises and for important instatutions, undertake:

- Technical and management troubleshooting
- Upgrading of plant and corporate level ranagement
- Increase in operating efficiency
- Quality control and maintenance systems
- Production planning and control
- Cost control, cost reduction
- Production flow and materials handling
- Capacity utilization
- Product design and product adaptation
- Sales systems, product line planning, pricing
- Raw material supply, including "backwards integration"
- Inventory control
- Expansion programmes, diversification
- Set-up management information and control systems (for production and budgeting, efficiency, other performance
 - indicators) Development of production for Export

Project Management Systems

- For non-manufacturing institutions related to industrialization (such as R & D and standards institutions) assist in streamlining internal programming and monitoring systems to help increase desired output and eventual application of results. $\frac{1}{2}$
- For Government departments assist in establishing systems related to exercise of their statutory functions (e.g. management of technology transfer)

Consultancy Network

- Assist in creating or strengthening other indigenous industrial consultancy entities, with a view, inter alia, to the eventual development of a national network of cooperating units. Links with corresponding units in other countries, both developing and industrialized, may also be considered.

Please see Managing Technical Institutions for Industrialization UNIDO/IOD.116

Special Skills

Over a period of time, develop special expertise in priority areas to be determined. These might include:

- Industrial sectors such as metal mechanics and
- Selected disciplines such as R and D management, financial management, engineering design and construction liaison.

The above outline is not intend.' to be comprehensive, yet it indicates the extensive range of important services likely to be considered. Determination of the initial service offerings and subsequent extensions will depend partly upon available resources.

3. AN ILLUSTRATIVE IMPLEMENTATION PROGRAMME

In each case the Government may determine characteristics of an actual programme to meet national needs and objectives. These characteristics will specify functions of the service (introduced in the previous rection), institutional framework, organization and staffing, phasing of implementation, and resource requirements. The ultimate objective is the achievement of self-reliance in industrial development skills, both management and technological; and this fact will greatly influence the overall programme design. The following paragraphs outline one possible implementation programme as a starting point for discussion. It is understood that changes would need to be made to adapt the scheme to local conditions. This material should, thus, be considered only as an illustrative example.

3.1 Institutional Framework

As mentioned earlier, it is intended that, to the extent possible, existing institutions and services may be used as a basis for further development. This may result in the creation of a consultancy "network", perhaps including units located in regional centres as well as in the capital. Examples of existing services are those which may already be in operation in connection with the Ministry of Industry, a development finance company, a university, a manufacturers' association, a management institute, or an industrial research and development centre, i.a.

For purposes of our illustration we have arbitrarily assumed that an industrial development centre attached to the Ministry of Industry has been providing limited consultancy services to publicly-owned,

_ (_

mixed and privately-owned enterprises, as well as to the ministry itself and to the development bank. The service is to be enlarged in scope as well as capacity, and its legal status will be shifted to that of a semi-autonomous public corporation. $\frac{1}{2}$

In some cases, it has been concluded that an essential prerequisite for the proper functioning of a consultancy organization is that it have a substantial degree of operating autonomy. The complex nature of the functions and the commercial or quasi-commercial character of the consulting organization may almost require an autonomous organizational status. It is sometimes argued that the organization must be outside the direct ministerial routines, recruitment procedures, etc., to be able to fulfil its entrusted functions effectively. The necessarily close, confidential relationship between consultant and client must not be hindered. Moreover, depending on local conditions, it may be of significant importance for recruiting and developing a qualified cadre of local professional staff that the consulting organization be an autonomous body with its own responsibilities and aspirations.

In most cases, there will be a board of directors chaired by the Minister of Industry. Legislation will be undoubtedly enacted at some stage to formalize the status and demonstrate full Government support. An example of such legislation, enacted recently in Tanzania, is reproduced for reference as an Annex (see Section 5).

In certain cases some form of initial association with one or more foreign consultancy firms may lead to better service for clients and quicker development of a fully qualified local staff. Such association may appropriately be in the form of retainer agreement(s), or possibly a joint venture. Such firm(s) may be either from industrialized or other developing countries, or both,

-7-

^{1/}The illustration applies nearly as well to the alternative case where an industrial R & D institute proposes to expand its advisory services, or where a development corporation wishes to offer consultancy services to "outside" clients.

The service will wish to create an exciting and dynamic environment for professional staff as a means of ensuring high levels of motivation and productivity. One way of approaching this basic need may be through the compensation system. Another is surely to take advantage of possibilities for "instant" communication with international data banks. Close and frequent contact with colleagues in other countries and with international institutions, including UNIDO, can also contribute to the attractiveness of a consultant's work.

3.2 Organization and Staffing

The organization and staffing must be designed to serve urgent needs of industry for practical consulting results, within the limitation of the initial resources expected to be available. This presumed initial limitation dictates a simple and tightly focussed structure. At the same time, the organization should be flexible; this will accommodate a modular approach to acquiring technical cooperation from various national and foreign sources as needs and opportunities arise.

Clearly, various organizational approaches are available. We present for illustration a simple, flexible concept based on the use of specially selected project teams, as the principal means of carrying out consultancy assignments.

The use of project teams rather than a highly structured set of functional or sectoral units is in our view the "secret" of flexibility. The method has been used for some time by many well established firms, because of its efficiency. But it has a special further advantage for a new, relatively small organization. The extra advantage is that it allows each consultancy job to be directed by the best qualified man available regardless of his formal organizational location and allows staff members of different primary specialities to participate in multidisciplinary projects as a matter of routine. The same principle facilitates the use of outside specialists drawn from a panel of associated consultants to participate as team members as needed.

-8-

An illustrative organizational structure is shown on the Functional Organization Chart (see Exhibit 1 on the following page.) There are generally four main elements:

- 1. Office of the General Manager
- 2. Technical and Economic Groups
- 3. Project Teams
- 4. Administration Section

Office of the General Manager (OGM)

The OGM includes the General Manager, the Director of Consulting Operations and the Projects Officer. The GM is responsible for overall leadership and direction and will be the chief policy maker. In addition, he will be heavily involved in client and Board relations, arrangements for foreign technical cooperation, and planning for the future development of the organization. The GM will also personally approve each consultancy report.

The Director of Consulting Operations (DCO) will advise and assist the GM with the tasks listed above. In addition he will exercise day to day direction of the consulting work, including the establishment of relative job priorities. Within established policy guidelines, the DCO will set the terms for, and accept, client agreements for NICS services. He will assign consultants to each project team and designate team leaders. He will also be in charge of formulating any necessary subcontracts with foreign consulting firms identifying additional sources of necessary skill.

The Project Officer will maintain and operate a mangement system for consulting operations. He will be responsible for job scheduling, in consultation with the DCO, and for various planning, measurement and reporting activities.

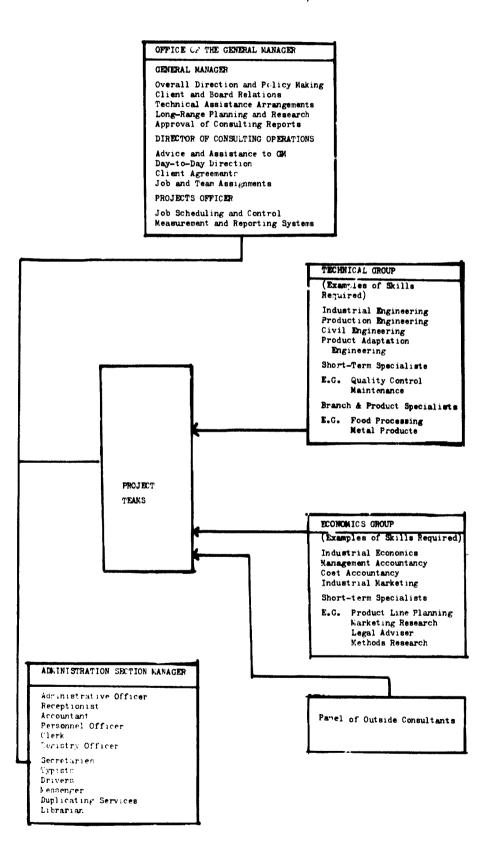
It is recognized that research and training regarding the most effective consultancy methods and their local adaptation will be needed. At the earliest stage an initial study will be organized under the OGM to design specific programmes.

- 9 -

-10--

EXHIBIT 1 : FUNCTIONAL ORGANIZATION CHART

(For Phase I - Illustrative)



Technical and Economics Groups

Except for the officers named above, each member of the consulting staff will belong either to the Technical Group or to the Economics Group, according to his specialty. The groups may initially be informal with no group managers appointed at this stage. In future years the group structure can become more formal, - for example, the groups can be subdivided and others added if appropriate.

Project Teams

A project team will be appointed by the DCO to carry out each consulting job accepted, and will be dissolved when the job is completed. A team may include from one to five consultants, or more, depending on the assignment; and the disciplines represented will vary similarly. One of the members will be designated as team leader. It is expected, of course, that a number of teams will exist concurrently; and one staff member may be involved ir more than one job. He might, for example, be team leader on one job and be acting as a functional specialist with one or more other teams. This kind of overlapping approach is necessary to allow full use of each staff member's time, since each of the skills assigned to a given team will not be required in equal measure. A system of time budgetting is used to monitor and control the application of a staff member's time to the various projects.

Each project manager will agree with each of his team members on a target number of days or hours to be applied to his project according to a certain schedule. (As mentioned above, a given staff member may be dividing his time among several projects during any period, according to requirements and availability.)

Administration Section

This section will service the organization through administrative, clerical, transport, and other supporting functions. In addition, the section will maintain a library which will be available to clients, as well as to the staff.

Because an adequate number of trained industrial consultants are not immediately available, much of the professional consulting work will initially be led by foreign technical personnel, accompanied by local staff members with varying levels of experience. Of the three principal management posts, it is possible that the Director of Consulting Operations may initially be an expatriate. The General Manager will be a proven local executive, with a strong technical background including engineering and/or economic experience. He must possess demonstrated leadership and human relations strength, coupled

with management drive. Success depends heavily upon the Government's ability to provide a general manager who can command the respect and cooperation of clients and staff alike.

Depending upon the local situation, initial plans might call for assignment of a number of foreign professionals from UNIDO and bilateral sources to assist the national staff. At the same time it must be fully recognized and accepted that a basic condition of the service's long-term viability and of the international community's willingness to cooperate for the possibly extended period which may be desirable, will be the ability to recruit and retain an appropriate staff of local professionals and paraprofessionals. The initial recruiting target in this area might be at least six to ten members each for the Technical Group and for the Economics Group, of whom half should possess full professional qualifications, while the rest may have a general degree such as business administration or BA. If a sufficient number of suitable graduates cannot be obtained within a reasonable time, consideration will be given to recruiting some carefully selected "technician level" candidates. While the qualitative staffing objectives are firm, pragmatic decisions and temporary compromises may have to be entertained and perhaps should be sought, as interim measures.

One potentially important means for augmenting local consultancy staff is the establishment of a panel of consultants whose principal professional affiliation is to another institution. This method will need to be carefully worked out to suit local conditions.

3.3 Operational Aspects

Consultancy operations will be a service to industry and to the industrial development institutions. It will be the intention to operate so as best to meet the consultancy needs of the clients. This, in turn, requires mutual confidence and close collaboration between the staff consultants of the consultancy organization and the executives and professionals of the client organizations. Only in this way will it be possible to :

-1?-

- properly define the precise need, priority and timing for consulting services;
- carry out the required analyses and diagnoses;
- for ulate the necessary recommendations and action programmes;
- Ensure implementation of the agreed measures.

It will indeed be expected that adequate staff of the client organization be assigned to work closely with the consultancy team. Besides the training benefits to the client's staff, such an agreement will assist the consultants to fully understand the problem at hand. Equally important, the recipient professionals will fully understand the studies, recommendations and implications of the consulting work, because of their direct participation. This procedure will help to ensure full implementation of consultancy results by avoiding the production of studies in isolation.

In spite of possible UNIDO and bilateral assistance to initial establishment and operation, the consulting capacities of the organization will probably be severely limited as compared to the considerable requirements of the industrial sector. Moreover, the potential field of consulting services covers a vast area of different aspects, industries and specialized skills.

Successful operation will, therefore, require that two basic approaches be adopted: i.e. (1) advance planning of consulting jobs to be undertaken and (2) use of short-term experts (local and international) as well as occasional subcontracting to specialized consultants.

It should be re-emphasized that the relationship between the consulting organization and its client is based on confidence and collaboration. This in turn requires that reports, findings and recommendations established for a client should be treated as restricted material for the sole use of the client. "Client" in this case would normally include the corresponding sectoral development corporation, if applicable, as well as the industrial enterprise directly involved.

The initiation and **execution** of consulting services would normally go along the following lines :

-1 :--

- The need for an industrial consultancy job is identified by the client, a Government supervisory body or by the service.
- 2. A request is formulated by the client and forwarded to the service.
- 3. The service examines the request and considers the urgency, priority, skill requirements, duration and cost involved as well as the possible need for sub-contracting arrangements with a local or foreign consulting firm.
- 4. Terms of reference, timing required, staff resources of service and client, and consulting fee are agreed upon and confirmed in writing.
- 5. The job is assigned to a project team including permanent staff and, if necessary, specially recruited short-term experts or subcontract specialists. Nominated staff of the client organization is specifically associated with the team.
- 6. The consulting service is carried out by the project group.
- 7. The report, findings, recommendations and actions are reviewed and approved by the consultancy management.
- 8. The final report is delivered to the client.
- 9. The consultancy service receives the agreed fee.
- 10. Implementation actions are undertaken by the client. The consultancy service will participate if included in the original agreement, or subject to a new agreement.

3.4 Phasing of Implementation

In some countries, where industrial consultancy services are already functioning in a limited or specialized sense, it would remain only to :

(a) Work out estimates of requirements for the desired expanded services;

-14-

- (b) Confirm or modify the functions and operational principles discussed above;
- (c) Finalize the organizational responsibilities.

5.4.1 Events Leading to Initial Operation

As a rule, once the Government confirms interest in the scheme and the general approach desired, an implementation plan can be prepared and execution begun.

The following chart gives a possible sequence of actions as an illustration :

-15--

-16-

ILLUSTRATIVE SEQUENCE OF EVENTS

ACTIVITY	SCHEDULE (Months from Start)
Implementation Planning	
UNIDO-Government mission	0- 2
Mission report submitted to Government	2
Legal Franework	
Consultative meetings with Ministries, Corporations, Institutions and Industries regarding steps to be taken and appropriate provisions	2-4
Covernment decision to create a semi-autonomous body	6
Passage of enabling legislation	8-10
Approval of budget	10
Appointment of Board of Directors	12
Staffing	
Appointment of General Manager	6-8
Recruiting start - local professionals and other staff	10
Appointment of staff	10-16
Facilities	
Study of alternative premises	6-10
Decision regarding premises	10
Physical transfer of existing equipment, library, etc., to new premises	12-14
Technical Cooperation	
Completion of draft project document for UNIDO and/or other technical cooperation	2
Submission of request by Government to UNIDO	4
Recruiting begins	6-8
Signature of project document	10
Fielding of Director of Consulting Operations	12
Fielding of other experts	12-16
Official Start of Operations ¹	12

1/ In many cases, some aspects can begin almost immediately under existing charters and authority. 1

3.4.2 Development in Stages

The assigned consultancy functions, described in section 2, cover a wide field of activities. However, it will be necessary at first to limit the number of permanent professional staff because of budget restrictions and recruiting bottlenecks, and to avoid cumbersome organizational problems. Later, the service will be able to expand its activities. It is, therefore, appropriate that development take place in stages.

First Stage

During the first stage of three years, the number of permanent national professional staff members might grow to approximately twenty.^{1/} The corresponding international personnel might total anywhere from two to ten during the same period. The limitation on permanent staff resources in this initial phase necessitates a definite concentration of activities to areas deemed particularly important by industry. In the first stage, emphasis could be placed on perhaps three broad areas selected on the basis of informal field studies. In a particular case, the areas might be different, but for illustration the following may be discussed:

- pre-investment activities (including expansion and diversification planning), which reflects a continuation and deepening of present activities of the existing organization,
- 2. <u>plant operations</u>, covering plant and production engineering, production planning, quality control, maintenance systems, and cost analyses and
- 3. <u>marketing and distribution</u>, covering market analysis, product line planning, product adaptation, pricing and pricing policy and distribution and sales operations.

The three areas listed above are closely interrelated and constitute a natural cluster of activities. This will help to avoid the possible danger of treating problems in isolation. When specialised technical problems are beyond the capabilities of regular staff, short-term or subcontractor expertise will be called in.

1/Of course, such numbers may vary widely, depending upon the local situation.

-17-

Second Stage - Addition of Detailed Plant Design Capacity

In the second stage (perh os years four through six) another step can be taken towards development of a fully self-contained industrial consulting organization. Additional activities will be covered while the on-going functions will be strengthened. For example, it is considered necessary eventually to develop detailed plant design and civil engineering capacities for the planning and implementation of industries. During the first stage the service would have to call in foreign engineering firms for such activities. During the second stage, it is anticipated that additional permanent national staff (and possibly additional foreign expertise) will be acquired to carry out more and more of the detailed design, layout, and engineering work.

The total national professional staff required for the second stage will be approximately doubled. Since the national staff during stage one will be intensively trained on-the-job it is foreseen that certain activities in the field of market research and pre-investment studies in phase two will be completely covered by domestic expertise. This will permit the foreign expert component to be shifted into other activities as required. It is considered essential to conduct - after the first two years of operation - a thorough review of capacities, of the requirements of industry for various consulting skills, and of the precise needs, if any, for continued foreign technical cooperation. This will be a key step towards adjusting activities and resources for the subsequent stage.

3.5 **Physical Facilities**

It will be necessary to assure suitable facilities for the service.

Estimates of staffing for the first three years of operation indicate that office space will be needed for as many as twenty-five professionals and technician-level national staff, twenty supporting personnel, and up to ten or more international personnel. Library and conference facilities are also required.

-18-

3.6 Financial Aspects

Although the clients will pay fees, it is expected that substantial support from the Government budget will be needed. A preliminary estimate of annual expenses may be prepared in accordance with the following list of items:

- Salaries of professional and support staff
- Outside consultancy fees
- Staff housing and benefits
- Rental of premises
- Equipment depreciation and maintenance
- Supplies, utilities and other.

A schedule of fees for various services will be established from time to time by the General Manager and approved by the Board of Directors. Fee revenue during the first year of operations is likely to be nominal.

4. INTERNATIONAL TECHNICAL COOPERATION

It is expected that the Government may request international and bilateral organizations to furnish a limited number of highly qualified staff members. It is considered that the importance and complexity of consultancy functions justify a flexible, "modular" approach to satisfying the need for experienced international personnel. Discussions and experience in various countries have led UNIDO to the conclusion that such an approach is fully feasible.

An example of the way such an approach could work is the following. UNIDO would supply a "nucleus" of experts on one to three year assignments. One or more bilateral organizations would also assist. One might provide a fund for acquiring short term specialized consulting services from firms in the donor country. Another might provide funds-intrust for UNIDO to use in recruiting additional experts. Still another could provide additional experts in fields where high priority needs are discovered.

The target size of a bilateral subcontracting fund would depend upon an initial survey of needs and priorities. Special arrangements would have to be made with the bilateral donor(s) to ensure (1) availability of the funds during an extended period (such as three years) and (2) flexible and efficient selection of consulting firms.

The Government may wish international cooperation for some of the diagnostic, design and start-up activities reflected above. UNIDO (or others) could assist if staff and resources permit. For example, the following inputs might be considered useful, subject to discussion.

EXHIBIT 3 : Possible Government-UNIDO Copperation Programme

- (a) <u>Requirements Analysis and Systems Design</u>
 Consultant plus a UNIDO staff member for a diagnostic and implementation planning mission.
- (b) <u>Provision of Industrial Consultancy Advisory Service</u> High-level advisors covering management, economics and technological aspects as well as specialized subjects such as an R & D management system, information services, legal aspects, etc.
- (c) <u>Other</u>
 Provision for fellowships, seminars, short term consultancy,
 equipment, etc.

Whether or not large-scale cooperation inputs are found to be needed and realizable, UNIDO would be pleased to assist with the requirements analysis and design phase of the programme. For further information please contact :

> Factory Establishment and Management Section Industrial Operations Division UNIDO P.O. Box 707 A-1011 Vienna Austria

5. ANNEX: AN EXAMPLE OF LEGISLATION

An Act to establish the Tanzania Industrial Studies and Consulting Organization, to provide for the functions of the Organization and for other matters connected therewith and incidental thereto

Enacted by the Parliament of the United Republic of Tarizania

1. Short title and commencement

This Act may be cited as the Tanzania Industrial Studies and Consulting Organization Act, 1976 and shall core into operation of such date as the Minister may, by notice in the Gagette, appoint.

2. Interpretation

In this Act, unless the context otherwise requires - "Board" means the Board of Directors of the Organization; "Director-General" means the Director-General of the Organization appointed under section 7; "member" in relation to the Board, means a member of the Board and includes the Chairman and Vice-Chairman; "Minister" means the Minister for the time being responsible for industries; "Organization" means the Tanzania Industrial Studies and Consulting Organization established by Section 3.

3. Establishment of Organization

- (1) There is hereby established an Organization to be known as the Tanzania Industrial Studies and Consulting Organization.
- (2) The Organization shall be a body corporate and shall -
 - (a) have perpetual succession and a common seal;
 - (b) in its corporate name be capable of suing and being sued;
 - subject to the provisions of this Act, be capable of purchasing and otherwise acquire and of alienating, any movable and immovable property.
- 4. Composition and proceedings of Board
 - (1) There shall be a Board of Directors of the Organization which shall be responsible for the performance of the functions and the management of the affairs of the Organization.
 - (2) The provisions of the Schedule to this Act shall have effect as to the constitution and tenure of office of the members of

- 21 -

the Board, termination of their appointment, the proceedings of the Board and other matters in relation to the Board and its members.

(3) The Divister ray, by order in the Gazette, amend, add to, vary or replace the Schedule to this Act.

. Functions of the Organization

The functions of the Organization shall be -

- (a) to provide consultancy and advisory services in subjects associated with industrial development and management to the Governments, public institutions and such other bodies or organizations as may be approved by the Minister;
- (b) to give advice and assistance to the Government, public institutions and such other bodies or organizations as may be approved by the Organization in the selection and employment of local or foreign consultants and advisors for any work relating to industries;
- (c) to co-operate with other bodies or organizations engaged in the provision of consultancy and advisory services in Tanzania and elsewhere in the implementation of measures calculated to foster, encourage and promote the expansion and wide use of modern industrial techniques and practices;
- (d) to conduct training programmes and promote the practical application of modern techniques in the development and management of industrial enterprises;
- (e) to initiate and carry out surveys, research and feasibility studies designed to foster the development of industrial enterprises to be undertaken within the United Republic by public or private institutions or organizations;
- (f) to co-ordinate research in industry carried out within the United Republic and establish a system of documentation in respect of information relating to industrial research or studies furnished to, or otherwise acquired by the Organization;
- (g) to sponsor and provide facilities for conferences and seminars on topics related to the work and activities of the Organization and to arrange for the publication and general dissemination of

material produced in connection with such work and activities:

- (h) to manage the affairs of any organization engaged in the provision of consultancy and advisory services to interests of which are transferred or otherwise acquired by the Cramination;
- (i) to do such acts and things as may be necessary to uphold and support the credit of the Organization, to obtain and justify public confidence, to avert or minimize any loss to the Organization and to facilitate the proper and efficient performance of its functions as specified under this section.

6. Power of Board to charge fees

For the proper performance of the functions of the Organization the Board shall, subject to any directions the Minister may give in that behalf, have power to charge fees for services rendered by the Organization.

7. Appointment of employees

- The President shall appoint upon such terms and conditions as he may specify a Director-General of the Organization who shall be the chief executive officer of the Organization.
- (2) The Board may from time to time appoint at such salaries and upon such terms and conditions as it may deem fit, such other officers and employees of the Organization as it may deem necessary for the proper and efficient conduct of the business and activities of the Organization.

8. Minister may give directions to Board

The Minister may give the Board directions of a general or specific nature and the Board shall give effect to every such direction.

9. Funds of the Organization

The funds and resources of the Organization shall consist of -

- (a) such sums as may be provided for the purposes of the Organization by Parliament, either by way of grant or loan;
- (b) such sums as the Organization may receive either as fees under section 6 or in the form of contributions made pursuant to section 10;

- 23 --

- (c) such sums as may in any manner become payable to or vested in the Organization under the provisions of this Act or incidental to be carrying out of its functions.
- 10. President may require contain enterprises to contribute to the funds of the Organization
 - (1) If the President considers that it is in the national interest that any person or body of persons or any category thereof engaged within the United Republic in any business or activity affecting industrial development should make contribution to the funds of the Organization for the furtherance of the objects for which the Organization is established, he may, by order in the Gazette, require such person or body of persons or any category thereof (hereinafter referred to as the "specified enterprise") to make contribution in such amount and in such manner as may be specified in the order.
 - (2) Every contribution required to be made under subsection (1) shall be paid by the specified enterprise to the Organization, and the arount so payable shall be a debt due to the Organization and may be recovered from the specified enterprise as a vivil debt by a suit at the instance of the Director-General or any person authorized by him in that behalf.
 - (3) Where any amount of contribution is due from any specified enterprise, the Director-General may file in a court of a resident magistrate having jurisdiction over the area in which the specified enterprise carries on business, a certificate stating -
 - (a) the name and address of the specified enterprise from whom such amount is due; and

(b) the amount due, and upon such certificate being lodged in such court such certificate shall be deemed to be a plaint duly lodged under Order XXXV of the Civil Procedure Code, 1966 and the oourt shall proceed in the matter in accordance with the provisions of that Order, and in the event of a judgement

- 24 -

being given in favour of the plaintiff the court shall pass a decree for payment by the defendant to the Organization of the amount found due together with interest thereon at five per centum per month from the date on which such certificate was filed until payment.

- (4) The provisions of subsection (3) shall apply notwithstanding that the amount involved exceeds the pecuniary jurisdiction of a court of a resident magistrate.
- (5) Every certificate filed in a court of a resident magistrate pursuant to the provisions of subsection (3) shall be prima facie evidence of the truth of the statements contained in such certificate.

11. Restriction on employment of foreign consultants, etc.

- (1) Whenever any person desires to employ any person from outside the United Republic as a consultant or advisor in relation to any work connected with industry, he shall first submit his proposals in that behalf in writing to the Organization.
- (2) Upon receipt of proposals submitted to it pursuant to subsection (1) the Organization shall hold consultations with the person who submitted the proposals, and upon completion of such consultations the Organization shall make such decision in relation to the proposals as will, in the opinion of the Organization, serve the best interests of industrial development within the United Republic.
- (3) Every decision made by the Organization under subsection (2) shall be binding upon every person affected thereby, but if any such person is aggrieved by the decision of the Organization he may appeal therefrom to the Minister, whose decision thereon shall be final.
- (4) For the purpose of giving effect to the objects and the provisions of this section the Organization may, with the approval of the Minister, issue guidelines specifying the conditions which should be observed in making proposals and also specifying matters to which the Organization shall have regard in making a decision under this section.

- (!) The Minister may by directions in writing under his hand exclude any person or body of persons or any category thereof from the operation of the provisions of subsection (1).
- 12. Information on industrial research to be furnished to the Organization
 - (1) Every person engaged in research in industry within the Twited Republic shall, at his own expense, furnish to the owner instin information relating to such research and shall rate evailable to the Organization copies of any relevant records or findings in such form and within such periods as may be prederibed
 - (2) The information furnished to the Organization under this section shall be kept by the Organization for purposes of record, and ag be dealt with or disposed of in such manner and for such purposes as the Minister may approve or direct.
 - (3) Any person who fails to comply with the provisions of subsection (1) shall be guilty of an offence and shall be liable upon conviction to a fine not exceeding fifteen thousand shillings or to imprisonment for a term not exceeding three years or to both such fine and imprisonment.
 - (4) The Minister may by directions in writing under his hand exclude any person or body of persons from the operation of the provisions of subsection (1).

13. Disclosure of information an offence

- All information relating to research furnished or made available to the Organization pursuant to section 12 shall be treated as confidential.
- (2) Any member of the Board or any officer of the Organization who discloses to any person, except for the purposes of the performance of his duties or the exercise of his powers under this Act, any information furnished to the Organization pursuant to the provisions of section 12, or any information which was otherwise acquired by such member or officer in the performance of his duties or the exercise of his powers under this Act, shall be guilty of an offence:

Provided that nothing in this subsection shall apply to disclosure of information made for the purposes of any legal proceedings which may be taken whether by virtue of this Act or otherwise or for the purposes of a report of any such proceedings.

(3) Any person guilty of an offence under subsection (1) shall be liable upon conviction to a fine not exceeding five thousand shillings or to imprisonment for a term not exceeding twelve months or to both such fine and imprisonment.

14. Where offence is committed by body of persons

Where any offence under this Act is connected by a body of persons, then, as well as such body of persons, every person who, at the time of the connission of the offence was concerned, whether as a director, a partner or an officer, with the management of the affairs of such body of persons, shall be guilty of the offence and shall be liable to be proceeded against and punished accordingly, unless he proves to the satisfaction of the court that he had no knowledge and could not by the exercise of reasonable diligence have had knowledge of the commission of the offence.

15. Remuneration and allowances of members

The members of the Board shall be entitled to receive remuneration, allowances and other benefits as the Minister may direct.

16. Superannuation benefits

The Board may -

- (a) grant gratuities or other retirement allowances or benefits to the officers and employees of the Organization;
- (b) establish and contribute to a superannuation fund or medical benefits fund for the officers and employees of the Organization;
- (c) require any officer or omployee of the Organization to contribute to any such superannuation fund or medical benefits fund and fix the amount and method of payment of such contribution.
- 17. Powers of the Board to delerate
 - (1) Subject to subsection (5) the Board may from time to time by

writing under the seal of the Organization delegate, subject to such terms, conditions and restrictions as it may specify, to any committee of the Board or to any officer or employee of the Organization, or any other person or body of persons, all or any of its functions, powers, authorities or duties under this Act, and where any delegation is so made the delegated function, power, authority or duty may be performed or, as the case may be, exercised by the delegate subject to the terms, conditions and restrictions specified in the writing.

- (2) Any delegation under subsection (1) may be made to the holder of any office under the Organization specifying the office but without naming the holder, and in every such case each successive holder of the office in question and each person who occupies or performs the duties of that office may, without any further authority, perform or, as the case may be, exercise the delegated function, power, authority or duty in accordance with the delegation made.
- (3) The Board may revoke a delegation made by it under this section.
- (4) No delegation made under this section shall prevent the Board from itself performing or exercising the function, power, authority or duty delegated.
- (5) The Board shall not have power under this section to delegate -
 - (a) its power of delegation; or
 - (b) the power to approve the annual budget or any supplementary budget or receipts and expenditure, the annual balance sheet or any statement of account.
- 18. Annual and Supplementary budget
 - (1) In this Act "financial year" means any period not exceeding twelve consecutive months designated in that behalf by the Board: Provided that the first financial year after the commencement of this Act shall commence on the date of the commencement of this Act and may be of longer or shorter period than twelve months.
 - (2) Not less than two months before the beginning of any financial year (other than the first financial year) the Board shall, at its meeting especially convened for that purpose, pass a detailed

- 28 -

budget in this Act called "the annual budget" of the arowsta respectively -

- (a) expected to be received; and
- (b) expected to be disbursed

by the Organization during that financial year.

- (3) If is any financial year the Board requires to take any disbursecent not provided for or of an arount in excess of the arount provided for, in the annual budget for the year, the Board shall, at a meeting, pass a supplementary budget detailing such disbursement.
- (4) The annual budget and every supplementary budget shall be in such form and include such details as the finister ray direct.
- (1) Forthwith upon passing any annual budget or any supplementary budget the Board shall submit the same to the finister for his approval.
- (6) The Minister shall, upon receipt of the aroual budget or any supplementary budget, approve or disapprove the same or nagapprove subject to such arendment as he may doer fit.
- (7) Where the Minister has approved any annual budget or supplementary budget, the budget, as amended by him, shall be binding on the Board which, subject to the provisions of subsection (F), shall confine the discursements of the Organization within the items and the amounts contained in the applicable estimates as approved by the Minister.
- (8) The Board may -
 - (a) with the sanction in writing of the Minister make a disbursement notwithstanding disbursement is not provided for in any budget;
 - (b) adjust expenditure limits to take account of circumstances not reasonably foreseeable at the time the budget was prepared, subject to submitting a supplementary budget to the Minister within two months of such alteration of expenditure limits becoming necessary.

10. Aroual report

The Organization shall, within sixty days of the end of each financial year, prepare a report on the activities of the Organization during such year and submit such report to the Unister.

20. Investient

With the prior approval of the Minister, the Board may, from time to fine, borrow moneys for the purposes of the Originization by Originizations in such investments as are authorized investments in relation to investments of funds by a trustee under the Trustees Investments Act, 1967.

21. Power to borrow

- (1) With the prior approval of the "inister the Board may, from time to time, borrow moneys for the purposes of the Organization by way of loan or overdraft and upon such security and such terms and conditions relating to the repayment of the principal and the payment of interest as, subject to any directions by the Minister, the Board may deer fit.
- (2) A person lending ropey to the Organization shall not be bound to enquire whether the borrowing of that money by the Board has been approved by the Minister.

22. Accounts and audit

- (1) The Board shall cause to be provided and kept proper books of accounts and records with respect to -
 - (a) the receipt and expenditure of moneys by, and other financial transactions of, the Organization;
 - (b) the assets and liabilities of the Organization, and shall cause to be wade out for every financial year a balance sheet showing details of the income and expenditure of the Organization and all its assets and liabilities.
- (2) Within six months of the close of every financial year the accounts including the balance sheet of the Organization in respect of that financial year shall be audited by the Tanzania Audit Corporation established by the Tanzania Audit Corporation Act, 1968.

- (3) As soon as the accounts of the Organization have been audited, and in any case not later than six months after the close of such financial year, the Board shall submit to the Finister a copy of the audited statement of accounts together with a copy of the report thereon made by the auditors.
- (4) Every such audited balance sheet shall be placed before a meeting of the Board and, if adopted by the Board shall be endorsed with a certificate that it has been so adopted.
- 3. Laying of accounts before National Assembly

The Dimister shall, as soon as may be proclicable after he has received them and not later than seven months after the close of a financial year or such longer period as the Dational Asserbly nay, by resolution, approve in that behalf, lay before the Untional Asserbly the following documents in relation to such financial year -

- (a) a cony of the Organization's annual balance sheet:
- (b) a copy of the auditor's report, if any :
- (c) a copy of the Organization's amount report.

24. Linbility of wenders of the Board, etc.

Without prejudice to the provisions of soction 200A of the Penal Gode or of the Specified Officers (Recovery of Debts) Act, 1970 or of the Parastatal Employees (Recovery of Debts) Act, 1970 to act or thing down, or or itted to be done, by any nember of the Board or by any officer, employee or agent of the Organization shall, if dowe or omitted bona fide in the execution or purported execution of his duties as such member, officer or employee or agent, subject any such person to any action, liability or depand whatsoever.

25. Regulations

- (1) The Minister may, after consulting with the Board, rake regulations necessary or desirable to give effect to the purposes and provisions of this Act and without prejudice to the generality of the foregoing such regulations pay be rade -
 - (a) prescribing the form in which and the period within which information relating to industrial research or records, or

or findings thereof shall be furnished or made available to the Organization under the provisions of this Act:

- (b) prescribing the form in which and the procedure by which proposals shall be node to the Oromanisation in respect of the employment foreign consultants or advisors;
- (c) prescribing anything or matter relating to the payment of contributions by specified enterprises to the funds of the Organization;
- (d) prescribing anything which under this Act is to be or is percitted to be prescribed.
- (2) Reminitions and under this section may be expressed to be applicable to -
 - (r) the whole or any part of the United Republic;
 - (b) any branch of industry;
 - (c) any category or categories of persons or specified enterprises.

SCHEDULE

1. Constitution

The Board shall consist of -

- (a) a Chairman who shall be appointed by the President;
- (b) the Director-General of the Tanzania Industrial Studies and Consulting Organization who shall also be the Secretary of the Board;
- (c) not less than ten and not more than fourteen other members, who shall be appointed by the Minister.

2. Vice-Chairman

The verticers of the Board shall, from among their number elect a Vice-Chairman, who shall hold office for as long as he remains a member of the Board.

3. Representation

In making appointments of members of the Board, the Minister shall ensure that there is adequate representation on the Board of such organizations and bodies as are likely to be mequired to make contribution to the funds of the Organization or the likely to utilize the skills and disciplines to be promoted by the Organization or the services to be rendered by the Organization, and shall further ensure that every person appointed by him is a person who, in his opinion has the necessary experience or qualification to enable such person to make useful contribution to the deliberations of the Board and to assist the Board in the performance of its functions.

4. Tenure of office

- (1) A mer ber of the Board shall, unless his appointment is sooner determined by the appointing authority, or he otherwise ceases to be a member, hold office for such period as the appointing authority may specify in his appointment: Provided that in the case of a member who is a member by virtue of his holding some other office, he shall cease to be a member upon his ceasing to hold that office.
- (2) Any member of the Board, other than a member referred to in the proviso to sub-paragraph (1), may at any time resign by giving notice in writing to the appointing authority and from the date specified in the notice or, if no date is so specified, from the date of the receipt of the notice by the appointing authority, he shall cease to be a member.

5. Absent member to be represented at meetings

If a member of the Board who is a member by virtue of his holding some other office is unable for any reason to attend any meeting, he may nominate in writing another person in his place from his organization for the purpose of that meeting.

6. Casual vacancies

Where any member of the Board ceases to be a member for any reason before the expiration of his term of office, the appointing authority shall appoint another person in his place and the person so appointed shall hold office for the remainder of the term of office of his predecessor.

7. Heetings

- (1) An ordinary weeting of the Board shall be convened by the Chairman and the notice specifying the place, date and time of the recting shall be sent to each norber at his usual place of budiness or residence not less than seven days before the date of such meeting. In case the Chairman is unable to act by reason of illness, absence from the United Republic or other sufficient cause, the Vice-Chairman may convene such meeting.
- (2) The Chairman or in his absence the Vice-Chairman, shall be bound to oonvene a special meeting of the Board upon receipt of a request in writing in that behalf signed by not less than three members of the Board. Not less than seven days' notice of such meeting shall be given to all members of the Board in the manner prescribed in sub-paragraph (1).
- (3) The Chairman, the Vice-Chairman, or the temporary chairman elected in accordance with the provisions of paragraph 8 (2) presiding at any meeting of the Board may invite any person who is not a member to participate in the deliberations of the Board, but any such person shall not be entitled to vote.

8. Procedure

- (1) Six members of the Board shall form a quorum for a meeting of the Board.
- (2) In the absence of the Chairman from a meeting of the Board, the Vice-Chairman shall preside. In the absence of both the Chairman and the Vice-Chairman from any meeting, the members present shall elect one of their number to be a temporary chairman of that meeting.
- (3) At any meeting of the Board a decision of the majority of the members present and voting shall be deemed to be a decision of the Board. In the event of an equality of votes the Chairman of the meeting shall have a casting vote in addition to his deliberative vote.

9. Decision by circulation of papers

Notwithstanding the provisions of paragraph 3 where the Chairman, or in his absence, the Vice-Chairman so directs a decision may be made by the Board without a meeting by circulation of the relevant papers among all the members of the Board and the expression in writing of their views, but any member shall be entitled to require that any such decision shall be deferred until the subject matter shall be considered at a meeting of the Board.

10. Linutes of neetings

Minutes is proper for of each meeting of the Board shall be kept and shall be confirmed by the Board at the mext meeting and signed by the Chairman of the meeting.

11. Vacancies, etc., not to invalidate proceedings

Subject to the provisions of paragraph ? relating to quorum the Board max act notwithstanding any vacancy in the membership thereof and no act on proceeding of the Board shall be invalid by reason only of some defect in the appointment of a person who purports to be a member thereof.

12. Orders, directions, etc.

All orders, directions, notices or documents made or issued by the Board shall be signed by -

- (a) the Director-General, or
- (b) any number of the Board or other officer of the Organization authorized in writing by the Director-General in that behalf.
- 13. Soal of Board

The seal of the Board shall not be offixed to any instruments except in the presence of the Director-General or the Chairman or the Vice-Chairman or some other officer of the Organization and at least one member of the Board.

14. Board way regulate its own proceedings

Subject to the provisions of this Schedule the Board shall have power to regulate its own proceedings.

- 35 -

(Annex, conclusion)

OBJECTS AND REASONS

This Bill is designed to establish the Pancenia Industrial Studies and Consulting Organization. As its mare inplies the Organization's primary responsibility will be the provision of consultancy services to the Government and production-oriented enterprises for the purpose of promoting industrial development in Pancania.

The establishment of the "Engenia Industrial Studies and Consulting Organization is in offect the conversion into an automorous national industrial, research and consultancy organization of what is called TEDEFER (Industrial Studies and Development Centre), a unit of specialized capacity attached to the Finistry of Industries, which was established about eleven years ago with the assistance of the United Hations Development Program.

Since its inception the Centre has recorded significant achievements in various specialized tasks connected with familiarity with technology and plant and machinery reflecting such technology. The reorganization and transformation of the Centre sought to be effected by this Bill is expected to go a long way in developing local capacity for industrial research and consultancy.

There will be a Board of Directors of the Organization established under Clause 4 of the Bill and whose composition is shown in the Schedule to the Bill.

Clause 5 of the Bill sets out the functions of the Organization. In the terms of Clause 7 there will be a Director-General appointed by the President and other officers and employees of the Organization who will be appointed by the Board of Directors.

All the other Clauses of the Bill provide for matters as are normally provided for in legislation establishing public institutions of this kind.



- 36 -



ι,

.

