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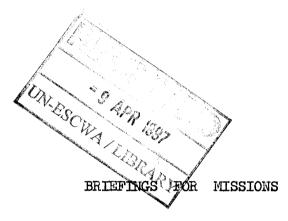
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ECONOMIC COMMISSION FOR WESTERN ASIA Preparatory Interagency Meeting on the Arab Centre for the Transfer and Development of Technology

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OBJECTIVES & MODALITIES OF THE MISSIONS.

1.0. INTRODUCTION

The missions that are visiting the Arab states are expected to accomplish two broad objectives:

- 1.1. To present the concept of a Centre for the Transfer and Development of Technology to the officials they meet;
- 1.2. To acquire useful information (both in printed and verbal form) on aspects of the problem as it is presented in the working paper and as it emerged during the interagency meeting.

It is very important to realize that the mission may not be able to meet with senior officials for more than 10 hours in each country. For this reason it is important that all meetings be carefully designed and rehearsed. It is important to adjust the questions to suit the background of the person being interviewed. If one allows 60 minutes per meeting, then no more than 15 minutes should be taken up with presenting the concept of the proposed centre and 30 minutes should be devoted to securing the response of the official. This leaves 15 minutes for the questions of either the members of the mission or the official. If 2 or more members of the mission are participating in an interview, the specific roles of each person should be determined beforehand. In 15 minutes, only 1200 words (i.e. 4 typewritten tapes) be spoken. It is most important that members of the missions train themselves to listen and interpret what they hear.

Whenever possible, the mission should budget 1.5 minutes out of the 15 presentation minutes to enumerating some of the specific contributions such a Centre could make to that particular country.

2.0. TYPE OF DESIRABLE INFORMATION

A great deal of useful information is already available on each Arab State. We are not concerned with updating or adding to this information. We are after two types of information:

- 2.1. <u>Factual information</u> concerning policies, institutions, etc., that bear directly on the acquisition of techniques, capital goods and products.
- 2.2. Attitudinal information concerning perception of technological problems and issues; interpretation of opportunities and problems; expectations and concerns.

Because the national accounts, economic planning and statistical compilations of Arab States normally do not concern themselves with technological transactions, we do not expect that you will find much explicit data or specific legislation or policies. Naturally whatever you may find will be welcome, and by all means do not reject information. The Challenge will be in digging up defecto policies and legislation that, although they do not expressly deal with technology, may have serious bearing on the process. It must be remembered that we are not trying to write a report on technology change in the Arab world, any more than we are on the processes of technological change, or the royalties paid for patents, etc. The report will have a brief introduction where this type of information will find some place. Although I do not wish to discourage the collection of data, this is not priority information. It is important that the mission distinguish between formal attitudes and actual practices.

3.0. THE PRIORITY INFORMATION FOR THE FEASABILITY STUDY IS :

3.1. Government efforts aiming at the acquisition of technology (as expressed in legislation, directives, programs, policies) concerning the transfer of tools, technical services, techniques and technology. Secure copies of documents.

Visit one or more ministries (councils, organizations, etc.) of Planning, Economy, Agriculture, Industry, Labour, Education. Try and find answers to the following type of questions:

- 3.1.1. Are there special instructions to designers and executors of 'projects (in any sector) bearing on:
 - the use of national engineering capacity ?
 - compulsory sub-contracting of substantial parts of contracts to national firms and contractors ?
 - the technical development of national engineering and contracting capacity through grants, support for training, loans to finance the purchase of facilities?
 - the selection of processes and techniques in relation to the available manpower and skills ?
 - whether employment is a factor in project planning?
 - educational and training programs? For example, do those responsible for the planning of agricultural or industrial projects examine the technical knowledge required for the long-term implantation of that technology and attempt to influence training and educational programs to secure the flow of adequate technical manpower?
 - do planners distinguish between training staff to operate a project and training staff to innovate once the project is launched?
- 3.1.2. What role do strictly technical organizations and institutions, such as public firms engaged in civil engineering, construction, etc., play in:
 - the selection of capital goods ?
 - the project design ?
 - the selection of techniques and processes ?
 - planning future training and educational programs ?
- 3.1.3. Are projects conceived within the framework of a technological program aiming at:
 - the systematic development in the country of scientific and technical expertise in a specific area?
 - the systematic establishment and development of the institutions capable of performing the technical tasks?

For example, if a country wishes to acquire fully a scientific and technical capability in a petrochemical industry, then it would see to it that: the educational system produces the necessary manpower; specialized engineering firms are developed; specialized construction and manufacturing firms are created and developed; quality control is rigorously maintained; and R & D is instituted. If this is the case then contracts of any type are so designed as to induce the professional and institutional development of this scientific and technical establishment.

- 3.1.4. Does the country practice any form of technology planning along similar lines as economic planning for identifying macro, sectoral and project level priorities? Is the allocation of R & D determined on the basis of social benefit cost criteria?
- 3.1.5.Do contracts with foreign firms stipulate that they utilize national manpower on their technical staff with a view to the transfer of knowhow?
- 3.1.6. Is there any specific directive or policy supporting the development of appropriate technology?
- 3.1.7. Does the government have policies concerning the registration of patents in use in the country?

Are patents screened for validity ?

Is there a systematic effort made to prevent multiple payments for the same patents?

Do national scientific institutions analyse the actual use of patents to identify alternative and relevant non-patented techniques?

3.2. What are the instruments created to implement these directives, programs, policies, legislation? Secure copies of documents.
Visit one or more ministries of: Finance, Planning and possibly the

Prime Minister's office, public organizations involved in sectoral activities (especially in countries where the public sector plays a leading role).

Try and find out what instruments have been specifically created to enforce directives, programs, policies, legislation in the technology field. For example:

- 3.2.1. Is there an institution whose function is strictly to examine contracts and programs for their technological implications. How powerful and effective is this institution?
- 3.2.2. Does the Ministry of Finance or planning ascertain that specified technological objectives initially included in a contract have been met?
 (Here it may be sufficient to know if a unit whose function is to perform this task exists. Find number and qualifications of staff).
- 3.2.3. Inter-institutional and inter-sectoral cooperation and coordination in the execution of projects.
- 3.2.4. Utilisation of inter-Arab institutions in the execution of project: frequency of use and percentage of all contracts granted to these institutions.
- 3.2.5. Are there institutions or units devoted to integrating dispersed activities in specific fields? For example, are specialized system engineering and technological organizations in existence? Is there an institutional effort dedicated to integrating training and educational programs in a specific field with actual or planned skill requirements? Engineering design and construction capacity with actual and planned projects requirements? Etc.
- 3.2.6. Is there a commitment to the solution of the technological problems of rural areas?
- 3.2.7. Are there any specific government unit, or units, specialized in preparing contracts with MNC's and foreign firms to effect the transfer of technology associated with specific projects and programs?

- 3.2.8. In the absence of such national institution, how does the government go about the implementing its directives, programs and policies?
- 3.3. What type of services would government officials expect from a Centre for the Transfer and Development of Technology? Try to be as definite as possible: find type of services, frequency of use and whether governments will take the initiative in seeking the services of the Centre.

 Visit the organization (if any) designated to manage or plan technological policies, together with the Ministries of Planning, Agriculture, Industry. Try and find as many specific answers to the possible utilization of the Centre's services in the design of contracts, projects, technological planning, generation of programs, training of policy

Suitable questions should be prepared by the mission on the spot.

analysts, assistance in negotiations, information, etc.

- 3.4. Priority rating of modules
 - It would be useful if the mission tries to have the persons interviewed rate the modules according to the following criteria:
 - 3.4.1. Is there a demand for the service represented by the module ?
 - 3.4.2. Who are to be the most likely users of the Centre? Will governments take the initiative in seeking the services of the Centre? What possible means will the government follow, or prefer to follow, in making use of the Centre? Try to determine the government's attitude on this issue in concrete terms. Attempt to assess the initiative that the official may demonstrate in seeking the services of the Centre.

To what extent and through what means has the government made use of existing regional or sub-regional centres in the Arab Middle East? What sorts of specific constraints have limited or hindered the establishment of effective contacts with these bodies?

3.4.3. What are the three modules that represent the functions of the highest priority to that country?

Since time may not be available to discuss all possible functions the mission should be selective in bringing up issues for discussion.

