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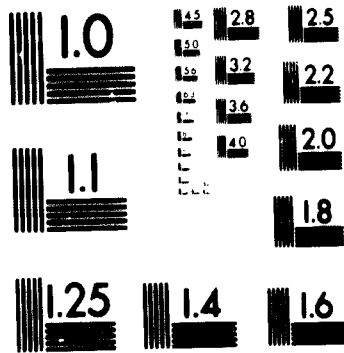
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I R A N

DRAFT COUNTRY PROGRAMME
FOR LONG-TERM TECHNICAL ASSISTANCE
IN THE INDUSTRIAL FIELD

REPORT OF THE UNIDO MISSION

5 - 19 December 1969

id.70-1776

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INTRODUCTION TO THE REPORT

1. The need to develop long-range programmes of technical assistance requirements has been stressed by the Industrial Development Board (the governing body of UNIDO), particularly at its Third Session in May 1969. Careful long-range assessments of the needs expressed by developing countries can provide a solid basis on which UNIDO can plan the future programme of co-operation and its activities required to support this programme.

2. In August 1969 UNIDO initiated through the UNDP Resident Representatives, consultations with several governments in order to establish ways of preparing a long-term country programme of co-operation for industrial development. Iran was among the first countries which requested UNIDO's assistance in developing such a programme and a Mission went to Teheran from December 5 - 19, 1969.

3. The Mission team was composed of :

Mr. A. E. Saenger (Team Leader)	Chief, Programme Co-ordination Section, Technical Co-operation Division
Mr. J. Stepanek	Special Technical Adviser to the Executive Director
Mr. R. Line	Industrial Development Officer, Industrial Policies and Programming Division
Mr. B. Jamilla	Programme Officer, Section for Asia, Technical Co-operation Division

4. The task of the Mission was to assist the Government to develop a plan for a long-range programme of technical assistance for industrial development. The Government was not expected to make advance commitments for an entire programming period of five years; however, some specific requests were expected to emerge which could be implemented in 1970 and 1971. As to the three following years, the Mission obtained an indication of the likely needs which may later be expressed in the form of requests for specific projects.

5. This report records the main conclusions which the Mission believes can be drawn from its discussions with Ministers, Government officials, industrialists, bankers and other parties interested in the industrialization of Iran.

6. The report does not represent at this stage a commitment on the part of the Government or of UNIDO. Rather, it is a record of the first round of discussions - the beginning of a dialogue which will continue at regular intervals in the years ahead. It is a planning document, rather than a plan, upon which the Government is expected to comment and then to confirm the requests informally detailed therein.

7. The Mission found that although the Fourth National Development Plan of Iran started in March 1968 and will run until March 1973, some re-thinking has been taking place about the scope and direction of the industrialization programme in the future and the policies and institutions needed to mobilize the resources required to implement it. The long-range programme of technical assistance for industrial development suggested in this report therefore includes projects which anticipate some of the needs of the next Development Plan period (1973-78), as well as projects to supplement and/or strengthen the existing programme planned for the final three years of the current Development Plan.

8. Chapter I of the report starts by giving a brief summary of the Fourth National Development Plan and the main targets and objectives of the industrialization programme for the period 1968-73; it then shows how the main areas in which UNIDO's technical co-operation will be required in the period 1970-74 relate to these objectives. The second chapter presents an analysis of an integrated long-range programme of technical assistance for industrial development; eight detailed tables are then provided which show for each area : (a) the major projects being implemented or planned by UNIDO, and (b) some related projects sponsored by other sources. The final chapters provide a brief review of the main projects in UNIDO's existing programme (Chapter III) and an outline (Chapter IV) of some of the more important projects expected to be required during the period 1970 to 1974.

9. The Mission was impressed with the warm welcome which it received and the open and frank way in which officials discussed the future pattern of technical co-operation with UNIDO. Fruitful meetings were held at all levels and extensive discussions took place in particular with H.E. Mr. H. Ansari, Minister of Economy; H.E. Mr. A. M. Majidi, Minister of Labour and Social Affairs; H.E. Mr. M. Yeganeh, Minister of Housing and Development; Mr. Kh. Farmanfarmaian, Governor of the Central Bank; H. E. Dr. A. Alikhani, Chancellor of Teheran University; and H.E. Mr. M. H. Zuberi, Secretary General, Regional Co-operation for Development (RCD). The complete list of contacts which the Mission had is attached in Appendix A. These contacts were greatly facilitated thanks to the preparatory work of Mr. Ali Aghassi, Principal Ministerial Adviser on International Operations of the Ministry of Economy, and his colleagues.

10. The Mission finally wishes to express its gratitude to the UNDP Resident Representative, Mr. N. Shallon, and his staff for the interested and active part taken in the Mission's work and for the unlimited support which was provided all through.

CHAPTER I: BACKGROUND TO THE LONG-RANGE PROGRAMME OF
TECHNICAL ASSISTANCE FOR INDUSTRIAL DEVELOPMENT

The National Development Plan, March 1968 - March 1973 and the
planned programme of Industrial Development

11. Iran was one of the most successful developing countries in achieving rapid economic development in the 1960s. The target for the fourth Plan period (1968-73) is an annual increase in national income of about 9% per annum.

12. The industrial sector is expected to make an important contribution to this continuing fast rate of economic growth. Official statistics show that output of the industrial sector increased by 12% per annum in the period 1963-68, despite the stagnation of the economy in the first two years of the Plan period. During the current Plan, industrial output is expected to increase at a rate of 15% per annum.

13. If this target is achieved it will mean that the value of industrial goods produced in Iran in 1973 will be double the level produced in 1968; the contribution of industry and mining to national product will increase from 14% to over 17%. The projected growth of the output of various branches of industry is shown in more detail below:

The value of output of major branches of industry
(Thousand million rials)

	<u>Actual</u> <u>1962</u>	<u>Actual</u> <u>1966</u>	<u>Estimated</u> <u>1968</u>	<u>Forecast</u> <u>1972</u>
1. Food-processing and tobacco	31.7	53.0	66.8	108.0
2. Textiles clothing and leather	21.6	26.5	31.0	55.4
3. Base metals and metal products	6.4	16.8	18.4	37.5
4. Cellulose	2.9	7.1	8.3	16.3
5. Pharmaceuticals	0.3	0.6	0.9	4.0
6. Chemicals	4.2	13.0	14.3	17.2
7. Petrochemicals	-	0.3	0.6	29.7
8. Mechanical engineering, electrical engineer- ing and vehicles	7.7	17.1	18.5	55.2
9. Non-metallic minerals	5.3	9.4	11.0	20.4
10. Handicrafts and carpets	4.1	11.5	12.2	20.1
11. Other industries	0.3	0.8	1.0	3.1
TOTAL	<u>84.4</u>	<u>156.0</u>	<u>183.0</u>	<u>367.0</u>

Source: Fourth National Development Plan, page 122.

14. The 1968-73 Plan is seen as the first stage of a long-term programme to industrialize Iran. The objective is to minimize the volume of imports of consumer goods, to increase steadily the range of capital and intermediate goods manufactured inside the country, and to expand and diversify the range of locally-manufactured goods exported to foreign countries.

15. Industrialization is seen as an important way of reducing the dependence of the economy on oil revenues. Another basic objective is the maximum exploitation of locally-available raw materials; instead of exporting them as raw materials, the Plan aims to process them into intermediate or if possible finished goods and then to export them.

16. The fourth National Development Plan notes that certain basic problems were being faced because of the rapid growth of industry and mining in Iran in the early and mid-1960s. These were:

- (a) an insufficient number of skilled workers, technicians and management experts;
- (b) the inefficiency of some existing industrial enterprises and inadequate utilization of machinery and equipment;
- (c) inadequate attention of manufacturers to improving their products and lowering prices;
- (d) the absence of proper assistance for controlling the quality of products so as to guarantee their conformity with international standards;
- (e) insufficient attention on the part of the private sector to technical and marketing studies of new projects;
- (f) the absence of specialized institutions for advising and guiding investors in the field of small-scale industries;
- (g) a shortage of working capital for manufacturers caused by the lack of adequate facilities and suitable regulations for making working capital loans available to the private sector.
- (h) a lack of legal protection for shareholders who invest private capital in large-scale industrial projects;
- (i) the unwillingness of private investors to invest outside Teheran, resulting in a concentration of development of industry in Teheran.
- (j) the lack of clear-cut legal procedures in the labour law to clarify the relationship between management and labour.

Areas in which the long-range programme of technical co-operation is expected to concentrate

17. The Mission identified eight main areas in which the Government anticipates that UNIDO's assistance will be channelled during the forthcoming years. These areas are directly related to the national industrial development objectives indicated by the Government, as follows:

<u>NATIONAL INDUSTRIAL DEVELOPMENT OBJECTIVES</u>	<u>AREAS OF TECHNICAL CO-OPERATION</u>
a) To develop a long-range strategy and plan for industrial development, identify and evaluate industrial projects, and formulate policies and measures for implementing industrial plans	Industrial Planning and policies
b) To develop mining, mineral, agricultural and other resource-based industries	Development of Resource-based industries
c) To develop an adequate supply of engineers, manager and skilled labour for industry	Developing trained manpower for Industry
d) To improve the efficiency of existing manufacturing enterprises	Industrial Standards and Research
e) To increase exports of industrial goods	Industrial Promotion for Export
f) To provide specialized institutes for advising and guiding investors in small-scale industry	Assistance to small-scale industry
g) To mobilize and effectively use domestic and foreign capital	Industrial financing and Investment Promotion
h) To make appropriate use of the Regional Co-operation for Development (RCD) Co-operation Agreement	Regional Co-operation in Industrial Development

18. It is hoped that this presentation will help the national authorities and UNIDO to see how the technical assistance projects in each area will contribute to the achievement of these national objectives which are being given a high priority by the Government. The national objective of obtaining a more geographically balanced distribution of industrial development has not been presented separately since it will be served by assistance in several different areas and, in particular, industrial planning and policies.

The relationship of the UNIDO programme to technical assistance projects available or planned from other sources

19. The long-range programme of technical assistance for the industrial development of Iran presented in this report takes account as far as possible of the technical assistance projects planned or already available in order to co-ordinate the suggested programme of UNIDO assistance with that available from other sources, and in particular to avoid duplication. Both the FAO and the ILO have large programmes in the country which have some bearing on the programme of assistance for industrial development. There is also a programme of assistance proposed by the World Bank Group. Coordination of these programmes with UNIDO's programme of assistance was discussed with representatives of those organizations in Teheran.

20. The Mission was informed that the World Bank Group expected to increase the volume of financial resources provided to Iran for industrial development in the period 1970-74. The Industrial and Mining Development Bank of Iran had so far obtained loans totalling \$105 million from the World Bank; a request for a further loan of \$50 million was being considered and further loans might be negotiated at a later date. The World Bank was also examining whether there were any large industrial projects which might require financial assistance.

21. The World Bank Group was discussing tentative plans for a programme of technical assistance in the area of industrial development for implementation starting in 1970. A Senior Adviser would be provided to the Industrial Development and Mining Bank of Iran. One or more experts on short term assignments might also be provided to examine the problems of several branches of industry with the aim of seeing how productivity and exports of manufactured goods could be increased. These industries are (a) textiles, (b) cars, lorries and trucks, (c) plastics, (d) shoes,

- (e) leather, (f) food processing, (g) vegetable oils,
- (h) sugar confectionary, (i) ceramic products, (j) cement,
- (k) marble and stone cutting.

In the case of textile, food-processing, marble and stone cutting branches of industry some assistance has already been requested from UNIDO.

22. When considering possible UNIDO assistance in the area of industrial production for export, the Mission noted that the Export Promotion Centre had requested UNCTAD/ITC expert services on (a) export promotion, (b) international marketing, and (c) design and packaging. These experts were in the process of recruitment. Since the Mission returned to Vienna, UNIDO has contacted ITC and forwarded to them the names of some suitable candidates for these posts.

The Institutional Background

23. In order to draw up a programme of technical assistance for industry, the Mission considered that it was essential to identify the Government machinery, and public and private institutions involved in the planning and implementation of industrial development. The table at the end of this chapter provides a list of such bodies and some of their main functions related to the industrial development of Iran. The possible needs of all these bodies were considered.

24. Although the Mission held discussions with the Chamber of Industry and Mines, direct contact with industrialists in the private sector was limited to a meeting with representatives of the pharmaceutical, automobile, domestic appliance and shoe manufacturing industries organized by the Export Promotion Centre. When the UNIDO National Committee informs industrialists of the scope and potential of UNIDO assistance, more requests for assistance may be initiated by industrialists with Government support.

List of major institutions in the
field of industrial development in Iran
and their principal related functions

<u>Institutions</u>	<u>Functions</u>
1. Plan Organization	<ol style="list-style-type: none">1. Disbursement of a major part of Government resources for development projects2. Overall plan for the industrial sector3. Developing inter-sector relationships4. Formulation, evaluation and financing of public sector industrial projects
2. Ministry of Economy	<ol style="list-style-type: none">1. Detailed planning of the industrial sector's development2. Identification and evaluation of projects in specific branches of industry3. Promotion of private investment4. Licensing new private sector investment projects5. Formulation and implementation of other policies and policy measures6. Promoting export-oriented industries; formulating policies to promote export of manufactured goods
3. Industrial Development and Renovation Organization (IDRO) (Established on the initiative of the Ministry of Economy)	<ol style="list-style-type: none">1. Establishing and running new heavy processing industries2. Running light processing industries3. Recruit and train managers and labour for these Government-controlled plants4. Supervise running of the Industrial Management Institute (IMI)5. Establish and run consulting firm (Technolog Inc.)
4. Export Promotion Centre (Established by the Ministry of Economy)	<ol style="list-style-type: none">1. Organize services and facilities to promote exports
5. Central Bank	<ol style="list-style-type: none">1. Organization and operation of the Stock Exchange2. Operate Centre for the Attraction and Protection of Foreign Investment in Iran

6. Industrial Development and Mining Bank of Iran
(A private bank established with Government financial support)
 1. Supply equity and loan finance for medium and large-scale enterprises in the private sector

7. Industrial Credit Bank
(Established by the Plan Organization)
 1. Supply equity and loan finance for industrial enterprises, mostly medium and small-scale in the private sector

8. Organization for small-scale industries and industrial estates
(Established by the Ministry of Economy)
 1. Establish industrial estates and/or areas
 2. Advise and assist the development of small-scale industry

9. Institute of Standard and Industrial Research of Iran
(Established by the Ministry of Economy)
 1. To formulate and implement industrial standards
 2. To advise industrial enterprises on quality control procedures
 3. Operate quality control testing laboratories
 4. To carry out applied industrial research
 5. Assist the establishment of private research organizations

10. National Petrochemical Co.
(Established by the National Iranian Oil Company)
 1. To develop the petrochemical industry

11. Steel Organization of Iran
(Established by the Plan Organization)
 1. To build and operate a fully integrated iron and steel complex
 2. To train appropriate personnel

12. Chamber of Industries and Mines
 1. To represent the interests of enterprises in the private sector
 2. To facilitate recruitment of technical assistance experts
 3. To operate Technical Training Centre and encourage training activities

13. University of Teheran
 1. Train engineers and economists
 2. Applied research—economics
 3. Applied research - scientific and engineering

14. Aryha Mehr Technical University
 1. Train engineers
 2. Applied research - engineering and scientific

CHAPTER II : MAIN AREAS IN WHICH UNIDO'S ASSISTANCE WILL BE REQUIRED

25. The key part of this report is the "Analysis of an integrated long-range programme of technical co-operation for industrial development" presented at the end of this chapter. There are eight programme analysis tables, one for each of the eight main areas in which UNIDO's technical co-operation will be required. These areas are :

1. Industrial Planning and Policies
2. Development of Resource-based Industries
3. Developing Trained Manpower for Industry
4. Industrial Standards and Research
5. Industrial Production for Export
6. Assistance to the Small-scale Industries
7. Industrial Financing and Investment Promotion
8. Regional Co-operation in Industrial Development

26. The first and second column of each programme analysis table identify (a) the public or private organizations which are primarily responsible for initiating action to achieve the national industrial development objectives, and (b) the development strategy being applied or considered. The Mission believes that such an analysis is essential to the design of an integrated programme of technical assistance.

27. The "integrated" concept of the long-range programme for technical assistance designed for Iran was considered in two main directions. Firstly, wherever a project helps to achieve more than one national objective, this has been shown accordingly, e.g. the work of the Research Centre for Industrial and Trade Development at the Ministry of Economy, which is a Special Fund project, is referred to as a means of achieving four different objectives.

28. The second direction in which the programme is integrated is the inclusion of technical assistance projects available or planned from other sources alongside those planned for implementation by UNIDO. Whenever a project from another multi-lateral source or from a bilateral source is helping the Government to implement a development strategy or strategies, it is listed accordingly in one or more places in the programme analysis table.

29. The tabulation of all these contributions to Government action is useful in confirming the need for new projects requested from UNIDO. Furthermore, this form of presentation can help the Government to make decisions on (a) whether existing projects need to be continued, (b) whether they need to be reoriented to achieve additional development strategies, or (c) whether they need to be supplemented by additional assistance.

30. The programme analysis tables are a way of designing a long-range programme of technical assistance. But the implementation of the programme depends on the conception and realization of a series of projects. The major projects included in the integrated programme of assistance are presented in the following two chapters, area by area.

31. The remaining pages of this chapter consist of the Programme Analysis Tables for each of the eight areas identified in paragraph 25.

NATIONAL INDUSTRIAL DEVELOPMENT OBJECTIVES:

- To develop a long-term strategy and plan for industrial development, identify and evaluate industrial projects, and formulate policies and measures for implementing industrial plans

PROGRAMME ANALYSIS TABLE
Area I. Industrial Planning and Policies

ORGANIZATIONS PRIMARILY RESPONSIBLE	DEVELOPMENT STRATEGY - BEING APPLIED OR CONSIDERED	TECHNICAL ASSISTANCE AVAILABLE OR PLANNED	SOME RELATED PROJECTS FROM OTHER SOURCES
Plan Organization	<p>Mid-term review of the Fourth Five-Year Development Plan (1966-1972)</p> <p>Develop strategy and outline plan for industrialization in Fifth Plan (1972-78)</p> <p>Improve skills in evaluating industrial projects to be financed by Government</p>	<p><u>UNIDO PROJECTS</u></p> <p><u>Advisory Services - Industrial Planning and Policies</u> One expert - Senior Industrial Adviser (1970-74)</p> <p>This assistance may be supplemented by short-term missions by consultants and/or UNIDO staff members</p>	<p><u>World Bank Group - Advisory Mission</u> coinciding with mid-term review of Plan Implementation mid-1970 (industrial sector aspects)</p> <p><u>Direct Contracts</u> - Technical consultants financed by Government</p>
Ministry of Economy	<p>Review the administrative organization of the Ministry of Economy</p>	<p><u>Existing Project</u></p> <p><u>Advisory Mission in Systems Analysis</u> Phase I - Exploratory; Consultant, UNIDO staff member (1969) Phase II - Systems Analysis expert (1970)</p>	<p><u>UNOTC-SF/IRA-25</u> - Public Service Reform and Training Project under the State Organization for Administration and Employment Affairs</p>
Ministry of Economy	<p>Improve skills in planning for industrial development, project identification and evaluation</p> <p>Prepare pre-investment studies of selected branches of industry</p> <p>Review policies and measures required to implement industrialization programme</p>	<p><u>Existing SF Project IRA-10</u></p> <p><u>Research Centre for Industrial and Trade Development</u> Project operates from 1968 to end 1971. Consider need for phase II of project starting January 1972.</p> <p>This project is being supplemented by <u>Advisory Group of Experts on Industrial Policies (1970)</u> and other experts on short-term assignments</p>	

PROGRAMME ANALYSIS TABLE
Area 2. Development of resource-based industries

11. To develop mining, mineral agricultural and other resource-based industries

NATIONAL INDUSTRIAL DEVELOPMENT OBJECTIVES:	DEVELOPMENT STRATEGY - BEING APPLIED OR CONSIDERED	ORGANIZATIONS PRIMARILY RESPONSIBLE	TECHNICAL ASSISTANCE AVAILABLE OR PLANNED	SOME RELATED PROJECTS FROM OTHER SOURCES
			UNIDO PROJECTS	
Steel Organization of Iran	To build and operate an integrated iron and steel plant		<p><u>Research Centre for Industrial and Trade Development</u> Studies of existing and future demand for steel</p> <p><u>Existing Project</u></p>	<p>USSR - Capital and technical assistance for Isfahan steel plant</p>
Ministry of Economy	Development of metallurgical industries		<p><u>Research Centre for Industrial and Trade Development</u> Pre-investment studies of industries based on copper, lead, zinc and chrome ores</p> <p><u>Existing SF Project IRA-16</u></p> <p><u>Testing of sponge-iron reduction Process</u> Follow-up of an advisory mission</p> <p><u>New Project</u></p> <p><u>Lead and zinc processing</u> Expert 1970 - follow-up of an exploratory and advisory mission</p> <p><u>New Project</u></p> <p><u>Iran Metallurgical Institute</u> Exploratory mission to assist the Government in considering an SF project</p> <p><u>New Project</u></p>	<p>USSR - Assistance in surveying and testing local ore deposits</p> <p>UN - Geological Survey (assisted as UN Special Fund project (IRA-28 Phase II)</p> <p>UN - Natural Resources Development; Advisor on Mining Policy</p>
Ministry of Economy Ministry of Agriculture	To establish various projects in the food-processing industry		<p><u>Research Centre for Industrial and Trade Development</u> Follow-up of pre-investment studies made by experts in 1969</p> <p><u>Existing SF Project IRA-16</u></p>	<p>World Bank Group - Assistance being considered to existing plants (for details see Area 5 below)</p>
Ministry of Economy Ministry of Agriculture	To improve design and establish production of selected items of agricultural machinery		<p><u>Agricultural Engineering Research Centre</u> Joint assistance from FAO and UNIDO proposed by local representative of FAO</p> <p><u>New Project</u></p>	
Ministry of Economy Ministry of Agriculture	To develop industries using leather, hides and skins		<p><u>Leather Industry Development</u> One expert, supplementary assistance to FAO-SF project IRA-13</p> <p><u>Existing Project</u></p>	<p>FAO-SF Project IRA-13 Hides, skins and leather development</p>

NATIONAL INDUSTRIAL DEVELOPMENT OBJECTIVES : III. To develop an adequate supply of engineers, managers and skilled labour for industry. PROGRAMME ANALYSIS TABLE Area 3. Developing Trained Manpower for Industry

ORGANIZATION'S PRIMARY RESPONSIBILITY	DEVELOPMENT STRATEGY - BEING APPLIED OR CONSIDERED	TECHNICAL ASSISTANCE AVAILABLE OR PLANNED	SOME RELATED PROJECTS FROM OTHER SOURCES
Plan Organization	Forecast future skilled manpower needs of industry	<u>Manpower Assessment for Industry</u> Additional advice may be requested from U.I.O.	ILO - Manpower assessment and planning (ILO/68/4) ILO - Vocational Training Planning (ILO/68/5) U.I.C.O. - Seminar on Manpower Planning and Development (1969)
Ministry of Economy, Industrial Development and Renovation Organization (IDRO)	To provide in-plant training for engineers already working in industry	<u>In-plant Training of Engineers</u> Advisory Group of experts to undertake exploratory mission (1970) Potential Special Fund project (1971-72)	Government of F.R.G. - in-plant training of 30 engineers. Other bilateral sources - in plant training abroad for managers and engineers of new projects operated by IDRO.
Industrial Development and Renovation Organization (IDRO)	To extend the training and consulting activities of the Industrial Management Institute to towns outside Teheran.		ILO Special Fund Project Ind - 30 - Management Development and Supervisory Training in Provincial Centres.
IDRO Committee of Industrialists	To develop advanced industrial management skills and consultancy	<u>Advanced Industrial Management Training and Consulting Institute</u> IDRO has approached ILO and U.I.O. to support this project with Special Fund assistance	Harvard University U.S.A. A group of private industrialists have independently approached the Business School for assistance with this project.
Aryha Mehr Technical University, or University of Teheran	To provide postgraduate training and a consulting service in industrial engineering and plant design.	<u>Industrial Engineering Institute</u> To be considered by Plan Organization in the context of anticipated manpower needs. Potential Special Fund project (1972-74)	World Bank Group Financial Assistance to Aryha Mehr Technical University being considered.

Area 3. Developing Trained Manpower for Industry (cont'd)

ORGANIZATION PRIMARILY RESPONSIBLE	DEVELOPMENT STRATEGY - BEING APPLIED OR CONSIDERED	TECHNICAL ASSISTANCE AVAILABLE OR PLANNED	
		UNIDO PROJECTS	SOVIET RELATED PROJECTS FROM OTHER SOURCES
Steel Organization of Iran	To establish an engineering consulting service staffed by Iranians capable of designing and supervising construction of plants in other branches of industry	<p><u>New project</u></p> <p><u>National Engineering Design Company</u> One expert to advise on the organization of the company which could provide employment for Iranian staff who have gained experience designing the steel plant</p>	<p><u>Austria</u> - similar company formed as a joint company by the IIRDBI with AUSTROPLAN</p> <p>Other bilateral sources : Assistance to Technological Inc., a consulting company formed by IDRO.</p>
Ministry of Economy Ministry of Finance	To provide incentives for industrial enterprises to carry out their own in-plant training	<p><u>Existing project</u></p> <p><u>Advisory Group of Experts on Industrial Policies (1970)</u></p>	
Ministry of Labour Ministry of Economy	To establish appropriate vocational and technical training institutions	<p><u>New project</u></p> <p><u>Tabriz Technical Training Centre</u> (Established by IDRO) Assistance to be requested from ILO and UNIDO of 5 experts. Potential mini Special Fund project (1972-74)</p> <p><u>Teheran Technical Training Centre</u> (Established by Chamber of Industry and Mines) Assistance to be requested from ILO and UNIDO to establish Centre on a firm basis. Expert - Repair and maintenance (1971)</p>	<p>ILO - Vocational Training Planning (ILO/62/5)</p> <p><u>Bilateral sources</u> : Training abroad of some skilled and supervisory labour for plants established by IDRO.</p>

PROGRAMME ANALYSIS TABLE
Area 4. Industrial Standards and Research

IV. To improve efficiency of existing manufacturing enterprises

NATIONAL INDUSTRIAL DEVELOPMENT OBJECTIVES

ORGANIZATIONS PRIMARILY RESPONSIBLE	DEVELOPMENT STRATEGY - BEING APPLIED OR CONSIDERED	TECHNICAL ASSISTANCE AVAILABLE OR PLANNED	SOME RELATED PROJECTS FROM OTHER SOURCES
<p>Institute of Standards and Industrial Research (ISIRI)</p>	<p>To introduce industrial standards and metrology services</p> <p>Increase applied research services for industrial enterprises</p> <p>Strengthen other advisory service to industry, including quality control</p>	<p><u>Assistance to ISIRI in Establishing a Metrology Centre (1970-73)</u></p> <p><u>SE Project IRA-24</u></p> <p><u>Existing Projects</u></p> <p><u>New Projects</u></p>	<p><u>International Executive Councils.</u> Short-term assignments by retired American business executives: 100 to end of 1969; continuing</p> <p><u>World Bank Group</u> - Assistance proposed to 11 branches of industry (as detailed on next sheet)</p>
<p>Chamber of Industry and Mines Ministry of Economy Other Ministries</p>	<p>To support new specialized research and development institutes which may be established by industrialists in the following branches of industry:</p> <ol style="list-style-type: none"> 1. Sugar 2. Textiles 3. Ceramics 4. Building Materials 	<p><u>Possible New Projects</u></p> <ol style="list-style-type: none"> 1. Sugar (with Chamber of Industry and Mines) 2. Textiles (with Ministry of Economy) 3. Ceramics (with Ministry of Economy) 4. Building Materials (with Ministry of Housing and Development) <p>(An expert on Textile Engineering will be attached to the Research Centre at the Ministry of Economy 1970-1971)</p>	
<p>Ministry of Economy</p>	<p>To examine policy problems in selected branches of industry, suggest measures to solve them</p>	<p><u>Advisory Group of Experts on Industrial Policies</u> Experts will make detailed study of textiles, pharmaceuticals, electrical branches of industry (1970)</p> <p><u>Existing Project</u></p>	

PROGRAMME ANALYSIS TABLE
Area 5. Industrial Production for Export

NATIONAL INDUSTRIAL
DEVELOPMENT OBJECTIVES : V. To increase exports of industrial goods

ORGANIZATIONS PRIARILY RESPONSIBLE	DEVELOPMENT STRATEGY - BEING APPLIED OR CONSIDERED	TECHNICAL ASSISTANCE AVAILABLE OR PLANNED	SOURCE RELATED PROJ CTS FROM OTHER SOURCES
Ministry of Economy	<p>Identify industries with export potential</p> <p>Formulate and implement new measures to promote export-oriented industries and export sales.</p>	<p>UNIDO PROJECTS</p> <p>Existing Project <u>Research Centre for Industrial Trade Development</u> Various studies by experts and consultants. Existing Project <u>Group of Experts on Industrial Policies</u> Measures to achieve this objective will be considered.</p>	<p><u>World Bank Group - Expert(s)</u> to study problems in all selected branches of industry with a view to raising efficiency and export potential.</p> <ol style="list-style-type: none"> 1. Textiles 2. Automobiles 3. Plastics 4. Shoes 5. Leather 6. Food Processing 7. Vegetable oils 8. Sugar confectionary 9. Ceramic products 10. Cement 11. Marble and stone cutting
Export Promotion Centre	<p>Strengthen information and other supporting activities to promote exports.</p> <p>Train managers of selected entrepreneurs in export production and marketing</p>	<p>Existing Project <u>Assistance to metal-working industries</u> <u>Exploratory Mission (1970)</u> followed by one or more experts (1970-71)</p> <p><u>Training in export production techniques</u> 10 fellowships for training Iranian managers abroad (1971-74) (Requests suggested to the Government by a group of industrialists whom the Mission met)</p>	<p><u>UNCTAD/I.I.C.</u> 3 experts under recruitment: Export Promotion Adviser, and Advisers on Export Marketing Packaging and Design.</p>

NATIONAL INDUSTRIAL DEVELOPMENT OBJECTIVES : VI. To provide specialized institutions for advising and guiding investors in small-scale industry

PROGRAMME ANALYSIS TABLE Area 6. Assistance to small-scale industry

ORGANIZATIONS PRIMARILY RESPONSIBLE	DEVELOPMENT STRATEGY BEING APPLIED OR CONSIDERED	UNIDO PROJECTS	TECHNICAL ASSISTANCE AVAILABLE OR PLANNED
Ministry of Economy Plan Organization Organization for Small-scale Industry and Industrial Estate Industrial Credit Bank Commercial Banks	Establish and operate industrial areas and estates Provide extension service to advise and guide small-scale industry entrepreneurs. Provide finance on appropriate terms and conditions for small-scale industry.	Establish and operate an industrial estate at <u>Ahwaz</u> Existing SF Project <u>IRA-11</u> The project has so far assisted the Government in implementing the first strategy. The project may need to be re-oriented to help fulfil the other two strategies. This and the possible continuation of the project after 1971 as a <u>Phase II</u> should be considered by a mid-term review early in 1970.	SOME RELATED PROJECTS FROM OTHER SOURCES

NATIONAL INDUSTRIAL DEVELOPMENT OBJECTIVES VII. To mobilize and effectively use domestic and foreign capital Area 7. Industrial Financing and Investment Promotion PROGRAMME ANALYSIS TABLE

ORGANIZATIONS PRIMARILY RESPONSIBLE	DEVELOPMENT STRATEGY - BEING APPLIED OR CONSIDERED	TECHNICAL ASSISTANCE AVAILABLE OR PLANNED	SOME RELATED PROJECTS FROM OTHER SOURCES
Industrial Development and Mining Bank of Iran (IMDBI)	To improve skills in formulating and evaluating private sector projects financed by the Bank	<p>UNIDO PROJECTS</p> <p><u>Industrial Technical Information Service:</u> One Expert: <u>Industrial Technical Information Adviser (1970/71)</u></p> <p><u>Stock Exchange</u> A top-level advisory mission may be requested (1970 or 1971)</p> <p><u>Investment Promotion Services</u> Continuing assistance on ad hoc basis (1970-74) for specific projects as requested by the Government (follow-up of the investment Promotion Mission in 1969)</p> <p><u>Investment Promotion Services</u> Advisory mission of one expert to identify suitable partners for joint-ventures (1970)</p>	<p><u>World Bank Group - Senior Adviser</u></p> <p><u>Bilateral Sources - Management consulting experts to strengthen Management Services Department</u></p>
Central Bank	To strengthen operation of the stock exchange and review company law	<p><u>Stock Exchange</u> A top-level advisory mission may be requested (1970 or 1971)</p> <p><u>Investment Promotion Services</u> Continuing assistance on ad hoc basis (1970-74) for specific projects as requested by the Government (follow-up of the investment Promotion Mission in 1969)</p>	
Ministry of Economy IMDBI Industrial Credit Bank	To identify and promote sources of external finance and know-how for selected industrial projects	<p><u>Investment Promotion Services</u> Continuing assistance on ad hoc basis (1970-74) for specific projects as requested by the Government (follow-up of the investment Promotion Mission in 1969)</p>	
National Petrochemical Company	Establish joint-ventures with foreign petrochemical companies to implement projects identified by existing pre-investment surveys	<p><u>Investment Promotion Services</u> Advisory mission of one expert to identify suitable partners for joint-ventures (1970)</p>	<p><u>World Bank Group - Senior Adviser</u></p> <p><u>Bilateral Sources - Management consulting experts to strengthen Management Services Department</u></p>

NATIONAL INDUSTRIAL
DEVELOPMENT OBJECTIVES

VIII. To make appropriate use of the
Regional Co-operation for
Development (RCD) co-operation
agreement

PROGRAMME ANALYSIS TABLE
Area 8. Regional Co-operation in Industrial Development

ORGANIZATIONS PRIMARILY RESPONSIBLE	DEVELOPMENT STRATEGY - BEING APPLIED OR CONSIDERED	TECHNICAL ASSISTANCE AVAILABLE OR PLANNED	
		UNIDO PROJECTS	SOME RELATED PROJECTS FROM OTHER SOURCES
Ministry of Economy	Identification of projects in branches of industry where regional co-operation desirable	Research Centre for Industrial and Trade Development Pre-investment surveys of some branches of industry and relevant to this objective	Similar studies carried out by Governments of Pakistan and Turkey
RCD Secretariat	Defining criteria and organi- sational arrangements for the establishment of one or more "joint-purpose" enterprises	Advisory Group of Experts Assistance requested for the establish- ment of enterprises in the engineering branches of industry	
RCD Secretariat	Identifying barriers to intra-regional trade Studies of regional trade potential for selected products	Research Centre for Industrial and Trade Development Some related studies have been carried out by the Research Centre for the Ministry of Economy	UNCTAD/IIC Study being prepared for the three RCD countries UNCTAD/IIC Study being prepared for the three RCD countries

CHAPTER III: AREAS OF TECHNICAL CO-OPERATION IN WHICH
EXISTING UNIDO PROJECTS ARE MAKING A MAJOR CONTRIBUTION

32. UNIDO assisted projects are already making a major contribution to three of the areas identified in the long-range programme of technical assistance. These are:

- No. 1: Industrial Planning and Policies
- 4: Industrial Standards and Research
- 6: Assistance to Small-scale Industry

Area No. 1: Industrial Planning and Policies

(a) Assistance to the Plan Organization

33. The Plan Organization's request for two experts, was discussed. The Mission suggested that the job descriptions initially submitted should be revised. One of the two experts will be a Senior Industrial Adviser, with sufficient experience in the field of industrial project evaluation and appraisal. The duration of his mission will be of at least two years; he will be mainly advising the Plan Organization on broader problems such as (a) the approach for the mid-term review of the implementation of the Fourth National Development Plan, and (b) the initial work on designing the strategy for industrialization in the Fifth Plan. Additional assistance to the Plan Organization in connexion with planning for 1970's might take the form of top-level consultants for short-term assignments.

34. The Plan Organization emphasized the preparatory work for the mid-term review of the Fourth National Plan. Possible assistance from the World Bank Group was being considered at the time of the Mission's visit. Requests for short-term UNIDO consultants to assist in the analysis of the implementation of the Plan were contemplated, as a complement to the contribution expected from the Senior Industrial Adviser and that which will be made by the Research Centre for Industrial and Trade Development.

(b) Assistance to the Ministry of Economy

35. UNIDO assistance in this area has so far concentrated on the Research Centre for Industrial and Trade Development at the Ministry of Economy in the form of a Special Fund project (IRA-16). The project started in January 1968 and is scheduled to run until the end of 1971. It is playing a very important role in the planning of the industrial development of Iran, including the preparation of pre-investment studies and it has now reached an important stage in its development.

36. The Mission recommends that the mid-term review of this project should be made by the Government, UNDP and UNIDO as soon as possible so that the resources required up to the end of 1971 can be clearly defined and the possible need of continued assistance to the Centre by UNDP/UNIDO should be considered.

37. The Minister of Economy is considering how to integrate the Research Centre more effectively in the Ministry's work; both he and his senior staff concerned with the Research Centre aim to strengthen the national staff of the Centre and give more emphasis to training by the international staff.

38. The mid-term review will have to consider how best to achieve these objectives and in particular how to attract sufficient local counterpart staff of the required calibre. It will also have to see whether the project is striking an appropriate balance between the various fields in which it operates: overall industrial sector planning; preparing pre-investment studies of selected branches of industry; project identification and evaluation; and the formulation of and implementation of industrial policies and measures.

39. Representatives of the industrial development banks and some industrialists believe the Research Centre can continue to play a useful role in identifying projects suitable for implementation by the private sector in the form of pre-investment studies. However, to convert those identification studies into full-scale feasibility studies is expensive and the Review will therefore have to consider whether the industrialists themselves should pay whenever costly studies are carried out by the Research Centre.

40. If Government policy moves towards encouraging private industry to conduct their own feasibility studies, it will be desirable to develop industrial market research skills in the management personnel of public and private sector enterprises. With this in mind, an Adviser on Industrial Market Research Techniques may be requested for 1971 or 1972 by the Ministry of Economy in a joint project with the University of Teheran.

41. The Ministry of Economy has recently established an Advisory Council to guide the work of the Research Centre; this will help to strengthen co-operation which exists with such interested organizations as the Industrial and Mining Development Bank of Iran and industrialists in the private sector.

42. UNIDO has submitted to the UNDP for approval an adjustment advice which includes provision for several of the new posts which were discussed with the Mission: that is, experts in (a) Industrial and Trade Data Programming, (b) Inter-industry Analysis, and (c) Textile Engineering. Other posts, to which the Deputy Minister of Economic Affairs attached importance, have been officially requested more recently. These are (d) Adviser on Industrial Policies - tariff structure and (e) Expert on project evaluation (licensing new investment). These can be financed by the project as short-term consultants.

43. It is desirable that most types of UNIDO co-operation with the Ministry of Economy be linked with the management of this Special Fund project, so that the assistance can be co-ordinated effectively. In some branches of industry there will be a need to avoid duplication with assistance proposed by the World Bank and other sources. In other cases (e.g. petrochemicals), the request for assistance should be reconsidered in the light of studies made by the National Petrochemical Company.

44. Three supplementary projects to be implemented in 1970 from GIF or other sources of funds are (a) assistance in re-organizing the administrative structure and functions of the Ministry of Economy (Systems Analysis expert); (b) an Advisory Group of four experts on Industrial Policies with specialists in the electrical engineering, pharmaceutical and textile industries; and (c) An Adviser on Industrial Statistics. The first of these will require close co-operation with the UNDP/UN Special Fund Project "Public Service Reform and Training" (IRA-25); the second has been and will continue to be co-ordinated with the advisory work of the World Bank group.

45. In order to develop Master Plans for various branches of industry, a large number of short-term consultants will be required. It is anticipated that most of the studies for which a need has been identified so far can be financed from the expert and consultant funds allocated to this Special Fund project. The table below lists the branches of industry for which studies have been made or are planned.

.../...

List of branches of industry covered by UNIDO Assistance to
the Research Centre for Industrial and Trade Development

<u>Studies completed or under way</u>	<u>Status of Implementation</u>
1. Evaluation of Project Report on the Tabriz Plant	Completed in June 1967
2. Evaluation of the feasibility study of the Power Equipment Plant	Completed in November 1967
3. Assessment of Steel and Special Steel Demand	Study being completed
4. Feasibility Study for Ferro-Alloys and Alloy-steels	Study being completed
5. Food Processing Industries	Master Plan completed
6. Wine Industry	Master Plan under preparation
7. Chemical Industries	Master Plan under preparation
8. Electrical Industries	Master Plan under preparation
9. Dye Stuffs Industry	Master Plan under preparation
10. Diesel Engine Manufacture	Expert under recruitment
11. Decorative Building Stones	Expert under recruitment
12. HYL Sponge Iron Reduction Process	Preliminary advice given
13. Mechanical Engineering Industries	Master Plan under preparation
 <u>Studies being considered</u>	
1. Manufacture of Pesticides (DDT and BHC)	Requested; under study by UNIDO
2. Maintenance and Repair of Equipment	" " " " "
3. Textile Engineering and Technology	" " " " "
4. Pharmaceuticals and Drugs	" " " " "
5. Petrochemicals	" " " " "
6. Tool cutting Plant	" " " " "
7. Lead and Zinc Processing	" " " " "
8. Copper and Copper Alloys	" " " " "
9. Building Materials Manufacture	Proposed by Minister of Housing and Development; request awaited
10. Ceramics	Request awaited

Area No. 4: Industrial Standards and Research

(a) Assistance to the Institute of Standards and Industrial Research of Iran (ISIRI)

46. The Mission visited ISIRI at Kerajh and were very impressed by the efficient organization of the Institute and the calibre of national staff which it has been able to attract. In view of this and the important role which the Institute plays in achieving a number of Government policy objectives, the Mission supports continued UNIDO assistance to the Institute.

47. A UNIDO/UNDP Special Fund project has been approved in June 1969 to assist ISIRI in establishing a Metrology Centre (IRA-34). The plan of the laboratory facilities has been completed with UNIDO's co-operation. The Plan of Operation for the project had not been signed at the time of the Mission's visit. Discussions revealed that the experience gained in the last year had shown a need to introduce some modifications to the original plans.

48. The Mission considers the finalization of the Plan of Operation for this project as a high priority problem and recommends that a UNIDO staff member visit Iran to settle all matters under discussion so that the project can become operational as soon as possible.

49. ISIRI has requested the continuation of the Industrial Research Adviser post under the UNDP/TA programme. Various short-term advisers were discussed with the Mission and are likely to be requested to help carry through specific research projects, e.g. electrical testing and safety design. Research training abroad through fellowships and study tours was discussed as another possible area for UNIDO assistance. Likewise, the need for advice and assistance in technological documentation was identified.

(b) Applied Research for individual branches of industry

50. Although applied industrial research is centralized at present at ISIRI, the Chamber of Industry and Mines informed the Mission that certain branches of industry might wish to establish their own research institutions in the 1970's.

51. The sugar manufacturers may express interest in forming a Sugar Research Institute. UNIDO expert, Mr. Work (ISIRI), will explore this idea further and advise the Government accordingly.

52. The Ministry of Economy is keen to introduce improvements in the textile industry. One of the experts in UNIDO's Advisory Group on Industrial Policies which will visit Iran in early 1970 will ;

- (a) examine the problems and nature of growth of the textile industry as well as its future direction in the light of the Government's policy objectives and evaluate the adequacy of measures employed for their implementation;
- (b) in the light of possibilities for development of this industry and the general policy objectives, make recommendations, if necessary, on specific measures with a view to further development of this industry and the solution of the said problems.

53. A programme of further UNIDO assistance leading to the establishment of a Textile Institute may be recommended. In the meantime, the Research Centre for Industrial and Trade Development intends to recruit an expert in textile engineering for one year by mid-1970.

54. A similar form of assistance may be appropriate for the development of local industry of ceramics and building materials. The latter suggestion made by the Minister of Housing and Development will need to be coordinated with projects for which United Nations assistance is being contemplated.

Area No. 6 : Assistance to small-scale industry

55. UNIDO's assistance to the organization for small-scale industries and industrial estates is in the form of a Special Fund project (IPA-11) which is scheduled to run until 31 December 1971. The existing project calls for the establishment of a demonstration industrial estate at Ahwaz.

56. It is not sure, however, that the present Government policy on small-scale industry development will be maintained. In particular, the Mission noted (a) that plans are being made to develop industrial areas in many other cities outside Teheran to be shared by large and small-scale industries, and (b) that urgent consideration is given to improving and strengthening the institutional mechanisms for supplying finance to entrepreneurs establishing small-scale industries. (1)

(1) The Mission understood that the Industrial Credit Bank which was originally responsible for this function has no offices outside Teheran, and that a Commercial Bank was the main source of finance for small-scale industry at present.

57. Discussions revealed that the Organization for small-scale industries and industrial estates has plans to develop a strong extension service. They will seek UNIDO's approval for two expert posts in 1970 and 1971 (a) to train a team of Iranians in extension work and entrepreneurial achievement and (b) to help organize and train a team of loan officers who will be attached to appropriate financing institutions with funds specifically earmarked for this purpose. The possibility will be considered to finance such assistance from the existing Special Fund project.

58. In view of the changes in Government policy, the Mission recommends that a mid-term review of the project be made as soon as possible.

CHAPTER IV: THE MAJOR PROJECTS IN THE FIVE NEW AREAS OF TECHNICAL ASSISTANCE IDENTIFIED BY THE MISSION.

59. There are five new areas in which the need for technical cooperation in the next few years was identified. These are:

- No. 2 The development of resource-based industries
- No. 3 Developing trained manpower for industry
- No. 5 Industrial production for export
- No. 7 Industrial financing and investment promotion
- No. 8 Regional Cooperation in Industrial Development.

Area No. 2: The development of resource-based industries

60. In order to support the Government's policy of rapid development of recently discovered ore bodies containing lead, zinc, copper and iron and the development of related industries, the Ministry of Economy is considering the need to establish an Iran Metallurgical Institute to develop research facilities and information on metallurgical and mineral processing and train specialists which these industries will require in the mid-1970's.

61. As a preliminary step, a UNIDO exploratory and preparatory mission has been requested to study the conditions under which such an Institute could be established with a view to assisting the Government to formulate a request for UNDP assistance as a Special Fund project. It is hoped that the operations for this project may start in 1971.

62. The importance of giving early consideration to this project has been demonstrated by urgent requests for initial short-term advisory missions (a) for further advice on the reduction of iron-ore and (b) on the processing of lead and zinc ore. These missions will be implemented by staff members of UNIDO early in 1970.

Area No. 3: Developing trained manpower for industry

63. In terms of need and hence the size and scope of assistance required, this is one of the most important new areas of assistance identified. The importance of manpower training is widely recognized in Iran and has been stressed by His Imperial Majesty. When addressing a meeting on Management in a Developing Economy, organised by the Central Bank in Teheran in April 1965, His Majesty said

"One generalisation, however, has perhaps universal admissibility. People everywhere are agents of progress. But progress will fail our expectations so long as people are not improved."

64. There are three potential Special Fund projects in this area of technical cooperation for which UNIDO's assistance may be considered:

- a. In-plant training of engineers and technicians
- b. An Industrial Engineering Institute
- c. An Advanced Industrial Management, Training and Consulting Institute.

In addition, United Nations assistance which may be requested for existing technical training centres for skilled labour could perhaps be developed as a Special Fund project.

(a) In-plant training of engineers

65. The Plan Organization recognizes that the demand anticipated for engineers and other qualified personnel when the Fourth Development Plan was prepared three years ago now needs to be updated. It has therefore asked the UNTP to provide an expert in assessing the manpower needs of industry. The need to develop practical steps for improving the skills of engineers and technicians who will be or are already working in industrial enterprises is fully realized in Iran.

66. Following the Mission's discussions, on 30 December 1969, the Government requested UNIDO to send an Advisory Group of experts (staff members and outside consultants) to investigate the development of in-plant training of engineers and technicians within existing industrial plants. The experts will be expected to advise the Ministry of Economy on the policies and arrangements required to ensure the development of an adequate supply of national technical and management personnel in the shortest possible time. The exploratory Mission is likely to result in a request for a Special Fund project starting in 1971.

(b) Establishment of an Industrial Engineering Institute

67. The Plan Organization also sees a need to expand the facilities for training engineers for industry at the University of Teheran and Arya Mehr Technical University. The establishment of an Industrial Engineering Institute at one of the above Universities is being considered. It would provide courses in industrial engineering as well as a consultancy service to

industrial enterprises, particularly in the field of plant design, production engineering and production planning and control. The establishment of such an institute would have to be considered in the context of possible assistance from other sources (UNESCO, IBRD, etc.) to Arya Mehr Technical University and the possible move of this University to Isfahan. This could be the subject of a request for a Special Fund Project starting in 1972.

(c) Advanced Industrial Management Training Institute

(68) The Industrial Development and Renovation Organization (IDRO) appears to be responsible for the Government's contribution to management training, and in particular the Iran Management Institute which is assisted by an UNDP/ILO Special Fund project. IDRO has been considering the establishment of a new but related project, and Advance Industrial Management and Consultant Training Institute. This project seems to have the full support of a group of industrialists who have been thinking along the same lines and have been in touch with the Business School at Harvard University independently on their own initiative.

(69) Seven teachers/consultants of a very high calibre are likely to be required; if these can be supplied by the United Nations, IDRO is prepared to consider the possibility of supplementing their salary in order to obtain personnel of the required level. This is a potential project for Special Fund assistance for implementation starting in 1971 to which UNIDO may give useful assistance. Such a project can make a very important contribution to the development of industry in Iran (and perhaps some other countries in the ECAFE Region) over the next years.

(d) Training skilled labour for industry

70. Under a Special Fund Project approved in January 1969, ILO will assist the Iranian Government in establishing management development and supervisory training centres in certain towns outside Teheran. To further support the Government's objective of decentralizing industrial development, arrangements may need to be made for training, skilled and semi-skilled labour for new industries in these towns. So far newly established industrial enterprises have had to rely on their own efforts. For example, to implement major new industrial projects (such as machine tools and aluminium), IDRO has (a) sent some skilled labour for training in foreign countries, and (b) established local training centres for technicians and skilled labour under its own auspices at Tabriz.

71. IDRO would be interested in strengthening the Technical Training Centre at Tabriz with a United Nations group of approximately 5 experts; it would then be willing to offer regional training facilities to other countries.

72. The support which industrialists might give to such training centres is evidenced by the establishment of a Technical Training Centre in Teheran by the Chamber of Industry and Mines at their own expense without a Government contribution. The Chamber would also be interested in obtaining United Nations assistance in the form of experts to strengthen and develop this Training Centre.

73. The Mission was advised that within the above field of activity UNIDO's assistance may be required at a later stage.

Area No. 5 : Industrial Production for Export

74. The Minister of Economy gives a top priority to this objective. A number of studies made by the Research Centre involve industries with considerable export potential: e.g. copper - copper alloys, ferrochrome, lead and zinc, food-processing, decorative building stones, etc.

75. The Mission discussed the problems faced by existing firms exporting automobiles, domestic appliances, shoes, and pharmaceuticals with representatives of these industries at a meeting organized by the Export Promotion Centre. The problems appear to be inadequate incentives; lack of adequate credit and insurance facilities; obstacles to trade imposed by importing countries; lack of detailed information on foreign market requirements; lack of trained staff for export sales and market development; low productivity and sometimes low quality in many existing product lines, and problems of arranging cheap and efficient transport to neighbouring countries. The Export Promotion Centre has requested UNCTAD/ITC assistance to provide general advice on (a) export promotion techniques, (b) export marketing, and (c) packaging and design.

76. The industrialists showed a special interest in two other types of assistance: (a) training abroad for Iranians from different branches of industry in export production of industrial goods and marketing techniques, and (b) on-the-spot assistance to the metal-working industry (including domestic appliances) to help it develop product lines suitable for export.

77. The development of production for export in the metal working branch of industry may become suitable for assistance from the Special Fund as a mini project. At the request of the Government a staff member of UNIDO will visit Iran early in 1970 to identify the type of assistance required.

Area No. 7 : Industrial Financing and Investment Promotion

(a) Financing of private sector industrial projects

78. The principal institution for financing private sector projects is the Industrial and Mining Development Bank of Iran (IMDBI). The Managing Director is keen to make more use of UNIDO assistance in the future and views the services of an Industrial Technical Information Adviser in 1970 as a first step towards closer co-operation.

(b) The Stock Exchange

79. The Fourth Development Plan identified the need to improve the legal protection of shareholders in large industrial enterprises. A stock exchange has been established by the Central Bank: the Governor informed the Mission that the qualifications needed for a quotation of shares were so rigorous (including 3 years audited accounts) that the range of companies listed would expand only slowly.

80. The IIMDBI sees a need to continuously develop new sources of equity capital. The Government is also keen to promote modern systems of management in family-owned enterprises. There is therefore a possibility that UNIDO's assistance may be requested in order to re-examine the existing organization and regulations of the stock exchange, company law, etc. with a view to advising on ways to speed up the achievement of these objectives.

(c) Investment Promotion - Petrochemical Industry

81. The National Petrochemical Company has drawn up a plan for future development of the petrochemical industry. Assistance from UNIDO was requested for the promotion and initial negotiation of joint-venture agreements. At the suggestion of the Mission, a staff member of UNIDO visited Teheran late in December 1969 and assisted the Company in the preparation of a request for an expert post.

82. This staff member confirmed the Mission's view that consulting services on the development of the petrochemical industry requested by the Research Centre for Trade and Industrial Development at the Ministry of Economy would have to be reconsidered in the light of the extensive studies already prepared by the National Petrochemical Company.

Area No. 8 : Regional Co-operation in Industrial Development

83. It is possible that some of the industrial projects which Iran will wish to establish in the 1970's will be more economic (and perhaps only feasible), if they entail a scale of production large enough to supply export markets, in particular those of neighbouring countries including Turkey and Pakistan who are members of RCD. Within RCD, Iran has been made the partner responsible for studying the feasibility of several "joint-purpose" projects of this type. UNIDO experts have helped to make some of these studies.

84. In addition, the RCD Secretariat on behalf of the Governments of Iran, Pakistan and Turkey had requested UNIDO assistance in formulating regional plans for the development of the heavy electrical and heavy mechanical branches of the engineering industry.

85. Regional cooperation in industrial development is therefore an area in which further UNIDO assistance may be requested in the early 1970's.

SUMMARY OF RECOMMENDATIONS

86. The Mission believes that the suggested long-range programme of assistance for industrial development in Iran presented in this report identifies suitable areas of concentration which are directly related to specific national development objectives; they are designed to meet the needs which are given a high priority by the Government.

87. The planning horizon for assistance which could be identified at this stage is limited to projects which can be started in the next two or three years, and whose expected duration will exceed one year. It is difficult to anticipate the needs for short-term expertise of a problem-solving nature at the plant level. This explains why the suggested long-range programme is concentrated on projects of Special Fund type. This reflects also the views expressed by most of the officials with whom the Mission had contacts.

88. The Mission's main recommendations submitted in this report are summarized as follows:

A. Projects presently under implementation

a

(a) Research Centre for Industrial and Trade Development (IRA-16)

- a mid-term review of the project is recommended;
- a possible extension of the project in 1972-73 (second phase) may be considered at the time of the mid-term review.

(b) Establishment of an Industrial Estate (IRA-11)

- a mid-term review of the project is recommended.

(c) Assistance to ISIRI (IRA-34)

- the Plan of Operation should be finalized as soon as possible; a visit of a UNIDO staff member to clarify some pending problems has been proposed.

B. New Projects

The following major projects were informally elaborated by the Government and have the support of the UNDP Resident Representative's office :

- (a) Advisory services to the Plan Organization (UNDP/TA)
- (b) Iran Metallurgical Centre (UNDP/SF)
- (c) In-plant Training of Engineers (UNDP/SF)
- (d) Industrial Engineering Institute (UNDP/SF)
- (e) Assistance to the Metal Working Industries for export promotion (SIS)

A comprehensive list of projects as well as a tentative timetable are given in Appendix B.

89. The follow-up at both UNIDO Headquarters and at the country level, of the long-range programming Mission's recommendations will be made on a project-by-project basis. The Government is expected to forward official requests, through the usual channels, for projects on which an agreement of principle was reached.

90. It was also agreed with the Government that periodic reviews of the present proposed programme will take place at regular intervals, possibly once a year.

APPENDIX A

LIST OF CONTACTS MADE BY THE UNIDO MISSION

H. E. Mr. H. Ansari
Minister of Economy

H. E. Mr. A. M. Hajidi
Minister of Labour and Social Affairs
Teheran

H. E. Mr. H. Yeganeh
Minister of Housing and Development

Mr. Kh. Farmanfarmaian
Governor
Central Bank of Iran (Bank Markazi)

H. E. Dr. Alinagi Alikhani
Chancellor
Teheran University

H. E. Mr. M. H. Zuberi
Secretary General
Regional Co-operation for Development (RCD)

Plan Organization

Mr. Reza Moghadam
Deputy Managing Director

Mr. Abadian
Assistant Managing Director

Mrs. F. Mahvi
Chief
International Technical Co-operation Bureau

Mr. A. Nouban
Director
Industries and Mines Section

Ministry of Economy

Mr. J. Ashrafi
Under-Secretary Minister of Economy

Mr. Hassan Ali Mehran
Deputy Managing Director
Research Centre for Industrial and Trade Development

Mr. A. Aghassi
Senior Adviser to the Minister of Economy

Mr. Najafi
Director General
Isfahan Office

Mr. Sadri
Deputy Director General
Isfahan Office

Industrial Development and Renovation Organization (IDRO)

Mr. R. Niazmand
Managing Director

Mr. Gharatcheh-Daghi
Managing Director
Iran Management Institute

Export Promotion Centre

Mr. Abbas Ordoubadi
Chairman of the Board

Industrial Development and Mining Bank of Iran

Mr. Kheradjoo
Managing Director

Industrial Credit Bank

Mr. Mendi H. Aliabadi
Deputy Managing Director

Organization for Small-scale Industries and Industrial Estates

Mr. H. Ansari
Managing Director

Mrs. Tahidloo
Head of Consultancy Services

Institute of Standard and Industrial Research of Iran

Mr. R. Shayegan
Managing Director

Mr. Hussein Alizadeh
Deputy Managing Director

National Petrochemical Company

Mr. B. Mostofi
Director

Steel Organization of Iran

Mr. A. Sheybani
Executive Director

D. Ali Moussavi-Nasle
Deputy Director

Chamber of Industries and Mines

Mr. Ziaie
President

Mr. Reza Razmara
Deputy Director

United Nations

Mr. Nessim Shallon
Resident Representative
Teheran

Mr. B. Bernander
Assistant Resident Representative
Teheran

Mr. Horst H. H. Tschenberg
IBRD
Washington, D.C.

Mr. C. R. Wynne-Roberts
Co-ordinator for Europe and Middle East
ILO
Geneva

Dr. Fuat Adali
FAO Representative in Iran

Mr. N. Rao
Project Manager
Research Centre for Industrial and Trade Development
Ministry of Economy

The Mission also met most of the other UNIDO experts working on existing projects in Iran.

LONG TERM PROGRAMME OF TECHNICAL ASSISTANCE FOR INDUSTRIAL DEVELOPMENT

Tentative Timetable

Area of co-operation Project Title	Project components	Source of financing () anticipated	1970	1971	1972	1973	1974
<u>1. Industrial Planning and Policies:</u>							
Senior Industrial Adviser		(UNDP/TA)					
System Analysis Expert		SIS 99/587					
Research Centre for Industrial and Trade Development	E, G, H, OI	UNDP/SE/IDA-12					
Advisors' Group of Experts and Industrial Policies		SIS 99/590					
Mid-term review of the Fourth National Development Plan		(SIS)					

<u>LEARN</u>							
-----	Approved projects:						
=====	New requests likely to be submitted immediately by the Government						
-----	Requests in the initial stage of formulation						
	Experts Services						
	Consulting firm						
	Training						
	Equipment						

Area of Co-operation	Project Title	Project Description	Project Leader	Source of Financing	Proposed Timing
2. Developtment of Resource Indefie dvelopes	Technology of Non-ferrous Technological Process Lead and line processing Treat cellular local Centre (Centre for the metallurgical and mineral technology Leather Industry Adviser	Director of CP	(SDF)	1980	1982
		Director of CP	(SDF) The Dip. Inside (SDF/13) (SDF/14-15)	1980	1983
3. Development of Training for Over-look ing	Development of Training for Over-look ing Development of Training for Over-look ing Advanced Technological Management Training and Control in Industries High School Engineering Institute	Director of CP	(SDF) SDF/16 SDF/17 SDF/18	1980	1982
		Director of CP	(SDF) SDF/19 SDF/20	1980	1983
		Director of CP	(SDF) SDF/21 SDF/22	1980	1983
		Director of CP	(SDF) SDF/23 SDF/24	1980	1983
4. Industrial Standards and Research Associate to DITIC	National Engineering Institute of Research Senior Engineering Advisor Fabric Technical Training Centre Chemical Institute Centre Research and Maintenance	Director of CP	(SDF) SDF/25 SDF/26	1980	1983
		Director of CP	(SDF) SDF/27 SDF/28	1980	1983

* In association with other Agencies

Areas of Re-operation:

Project Title

Project Components
Sources of Financing

Proposed Timing

1970 1971 1972 1973 1974

Industrial Research Division Research and testing, technique Laboratory equipment	(IDP/SA) 20 (US) (US)				
Industrial Research User Research	(US, IDP/SA) (US) (US)				
Genetic Engineering research Genetic Research	(US) (US)				
Making materials	(US)				
5. Industrial promotion for the 1970 Assistance to small workers enterprises Export Promotion-Technical assistance Training in export marketing for Industrial Goods	(US) (US) (US, IDP/SA)				
6. Assistance to small-scale farmers Establish and operate an Industrial Estate* Construction, equipment, maintenance Training** Physical and financial planning	(IDP/SA, IDP-11) (US, IDP/SA) (US, IDP/SA)				

* Second phase contemplated with the re-orientation of the project
** The needs likely to be admitted separately, if a second phase of the established project IDP-11 would
not materialize.

Proposed timing

Project component
source of financing

Areas of Co-operation

Project title

1970 1971 1972 1973 1974

() anticipated

(UNDP/FA)
(UNDP/FA)
(UNDP/FA)
(IP)
(UNDP/FA)
(UNDP/FA)
(UNDP/FA)
(IP)

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Licensing, Export/Import Policies **
Export Processing Zones **
Export Promotion, Marketing **
Product and Display Techn **
Development of Infrastructure Facilities**
Development of Ancillary Industries **
Cost Accounting **
Production and Personnel Management **

** Requests likely to be submitted separately, in a second phase of an assisted project IRA-11 would not materialize.

7. Industrial Finance and Investment Promotion

Industrial Technical Information Service
Stock Exchange Advisory Mission
Advisory Services on Joint Venture Negotiation (Petrochemical Industries)

(UNDP/FA)
(JIS)
UN empl.
Mission (SIS)

E
E or CP
E
Mission

8. Regional Co-operation in Ind. Development

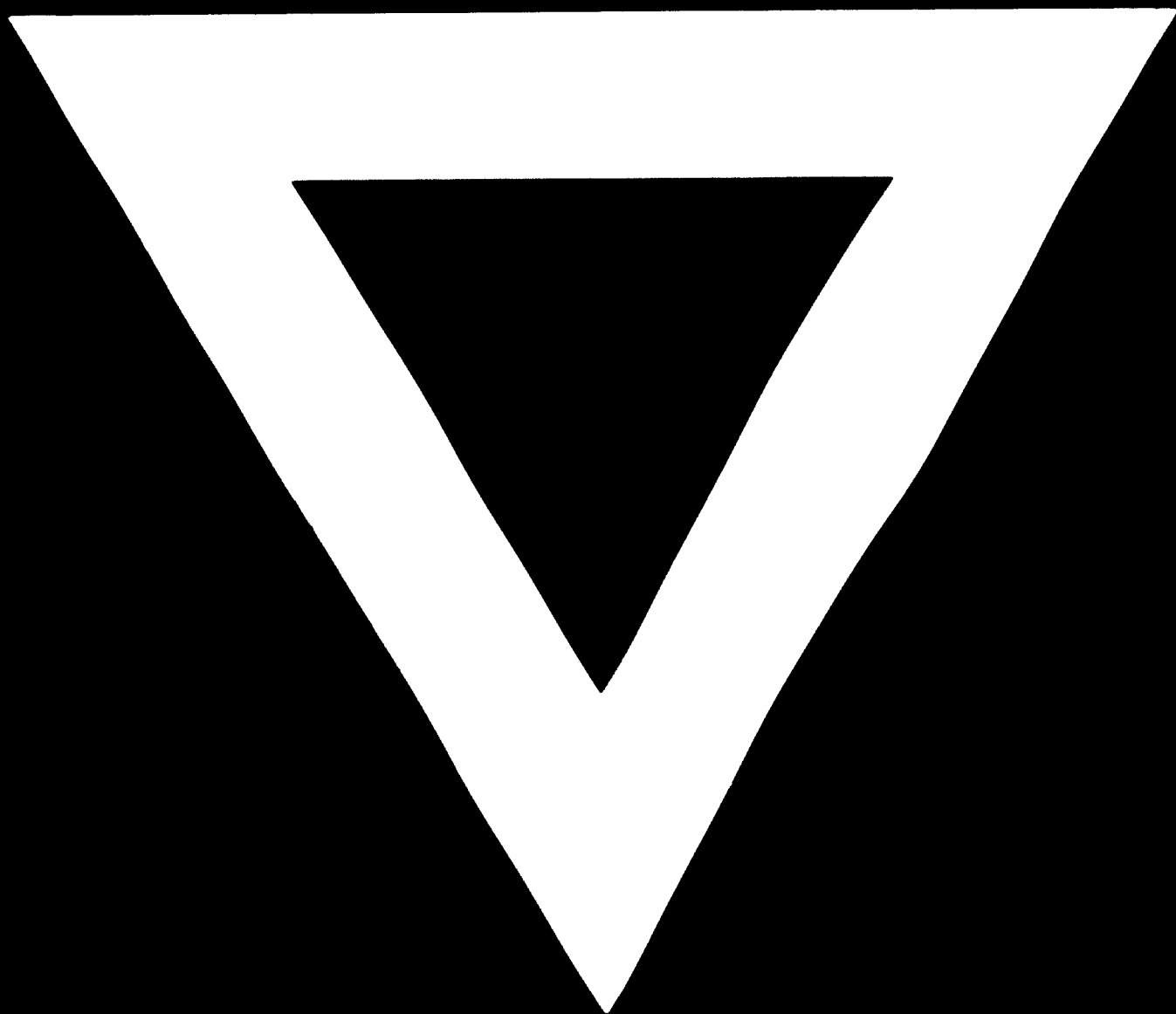
Advisory Group of Experts in establishing manufacturing units in the heavy electrical and heavy engineering branches of industry

(SIS)

E, CP

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