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PROMOTION OF TECHNICAL AND INDUSTRIAL CO-OPERATION  
BETWEEN DEVELOPING AND INDUSTRIALIZED COUNTRIES  
THROUGH ACTIVE PARTICIPATION OF NGO'S\*

Report of the visits to Iran, Iraq, Jordan and Syria

by

**Jerzy Sobiepan**  
UNIDO Consultant

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## CONTENTS

Terms of Reference .....	page 3
Introduction .....	" 7
IRAN .....	" 11
The institutions interested in co-operation .....	" 12
Proposals for technical/industrial co-operation..	" 13
IRAQ .....	" 19
The institutions interested in co-operation .....	" 20
Proposals for technical/industrial co-operation..	" 21
JORDAN .....	" 25
The institutions interested in co-operation .....	" 26
Proposals for technical/industrial co-operation..	" 27
SYRIA .....	" 32
The institutions interested in co-operation .....	" 33
Proposals for technical/industrial co-operation..	" 34
General recommendations .....	" 37
Schedule of the proposed times for visiting selected industries in Poland .....	" 38

TERMS OF REFERENCE

International Technical and Industrial Co-operation has become an important means for rapid industrialization of developing countries. The Lima Declaration and Plan of Action on Industrial Development and Cooperation invited developed countries to increase their cooperation with developing countries, in order to make available to these countries the resources required to sustain the growth effort essential for accelerating their social and economic development. Cooperation among developing countries should also be promoted and improved by sharing of experience in industrialization by those who have already acquired this knowledge.

Following recommendations of the Lima Conference and suggestions expressed by delegations to the Industrial Development Board, UNIDO has approved a project to send four consultants to a number of selected developing countries. The consultants will in close cooperation with appropriate non-governmental organizations /chamber of commerce and industry, federations of industry and/or manufacturers associations/, identify industrial branches and areas amenable to cooperation with companies or institutions in

developed and/or other developing countries. The consultants will also contact already identified enterprises and institutions willing to enter into cooperation arrangements with similar organizations from developed/developing countries in order to prepare background papers and basic information on envisaged forms of cooperation, which will serve for the organization of meetings during 1978 between identified partners from developing countries visited and similar organizations from developed/developing countries.

In particular the consultants will undertake the followings:

1. Identify industrial branches or sectors suitable for international technical and industrial cooperation,
2. Identify organizations and/or industrial institutions dealing with promotion of technical and industrial cooperation, review their programmes and needs in establishing cooperative links with international and national organizations dealing with the same subject / UNIDO, ICA, etc./,
3. Identify firms, institutions interested and capable of cooperation, collect and/or process specific proposals for technical/industrial cooperation,

4. Assist these firms or institutions in identifying prospective areas of cooperation with similar partners from developed/developing countries including the following:
  - Manufacturing cooperation /subcontracting/,
  - Joint ventures,
  - Joint construction of industrial projects,
  - Transfer of technology and know-how for new product,
  - Technical assistance /sending experts, transfer of patents, licences/,
  - Training of managerial and technical personnel,
  - Joint technological research,
  
5. Identify specific products /production line/ for which these enterprises would need partners for cooperation, including:
  - Transfer of production plants from developed/developing countries /redemployment/,
  - Transfer of technology,
  - Joint investment /joint ventures/,
  
6. Assist these firms and institutions in formulating proposals for identified specific projects for cooperation in order to submit these to UNIDO for further action and specifically for the preparation of envisaged meetings during 1978.

7. The consultants will orient and assist identified enterprises and institutions on possibilities for requesting UNIDO's assistance in establishing and promoting forms of cooperation with partners from developed/developing countries,
8. Based on findings in the countries they will visit, the consultants will prepare a report on their mission which will include recommendations for follow-up action, and particularly those concerning meetings to be organized in 1978 in Poland and Yugoslavia.

Introduction.

The identification of industrial branches/sectors of industry : suitable for international technical and industrial cooperation and the identification of the firms or institutions having an interest to establish cooperative links with other enterprises or institutions from developed/developing countries, presents a very complex task.

The reason for that its economic way of development and needs and the success of such activity is in great extend dependent on conditions in which the identification is carried out.

The consultant has visited four countries:

IRAN  
IRAQ  
JORDAN  
and SYRIA

Independent of economical and political conditions different in the four visited countries, UNIDC's activity has been accepted and appreciated by all personalities and people contacted in all visited countries, as a new and very practical form to assist industries in their efforts to speed-up their development programmes.

The contacts and discussions were established with most important and outstanding personalities from non-governmental organizations and with officials from the state organizations.



It is worthwhile to mention that full cooperation of responding UNDP/UNIDO officers followed these visits in all four countries.

All that, including the approach expressed in the Terms of Reference, although not completely attributed to the results of this undertaking.

It is general thinking that industrial and technical international cooperation is the only way to establish continuous export-import relations which will to great extent replace pure export/import trade of the traditional finished products or raw materials.

It is evident that many countries tend to become self-sufficient in many areas of industrial production mainly because of the need to improve their balance of payment.

Both private, public enterprises and government undertaking have the interest to establish international cooperative links.

The consultant has proposed a number of enterprises from differently owned industries.

R E P O R T

on mission to

IRAN ..... 9 - 19 January 1978  
IRAQ ..... 19 - 29 January 1978  
JORDAN and ..... 29 January - 6 February 1978  
SYRIA ..... 6 - 19 February 1978.

in order to identify branches and institutions  
amenable to co-operate with companies or institutions  
in developed and/or other developing countries.

for: UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

elaborated by:

Sobiepan Jerzy MSc.Arch. Polservice, Poland

UNIDO Contract No 77/57

February 1978.

Project Title: Promotion of Technical and Industrial  
Co-operation between Developing and  
Industrialized Countries through Active  
Participation of N.G.O.s and Business  
and Industrial Institutions Co-operation  
Section, Division of Policy Co-ordination.

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION: VIENNA.

Acknowledgment

It is my pleasure to express the deep acknowledgment to the  
Resident Representatives in Teheran, Baghdad, Amman and Damascus  
and especially to:

Mr. Chan Shah, Programme Officer UNDP in Teheran,

Mr. Fikrat Kirdar, Programme Officer UNDP in Baghdad,

Miss Rima H. Kamal, Senior Programmer Officer UNDP in Amman and

Dr. A. Salem, Senior Industrial Development Field Adviser in  
Damascus

for assisting me in contacting appropriate organizations and  
institutions in their countries.

I R A N

9 - 19 January 1978.

I. INSTITUTIONS INTERESTED IN CO-OPERATION.

1. CHAMBER OF COMMERCE, INDUSTRIES AND MINES

254, Takhte Jamshid Ave, Teheran, tel.836122

Dr. A.M. Bonakdarpour, Treasurer and Secretary General and  
Miss M. Baharmant -Officer.

2. SYNDICAT OF CONSTRUCTION COMPANIES

86/88 Saba Ave, Teheran tel 642037, 669105

Dr. M.H. Kaschani-Sabet, Director of Technical Bureau and  
Mr. Jafroodi President of Syndicat.

3. MINISTRY OF HOUSING AND URBAN DEVELOPMENT

475, Takhte Jamshid Ave, Teheran, tel.833517 telex 212117 MHUD IR

Mr. Parviz S. Towfighi Ph.D., High Adviser to the Minister of  
Housing and Urban Development and Secretary Iranian Committee  
National for Human Settlements.

4. BUILDING AND HOUSING RESEARCH CENTRE

P.O.Box 15.1114, tel 639943, Teheran

Mr. Hormoz Familli Bsc.Fh.D., Deputy Director

5. MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT

SUGAR BEET RESEARCH INSTITUTE

Old Building, P.O.Box 3141297, Elisabeth Bld, tel.931144, Teheran

Dr. A.M. Omidvar, Director General

G. MINISTRY OF INDUSTRY AND MINING

Mining and Metallurgy of non Ferrous Metals

Dr. Moarifi, Director General

II. PROPOSALS FOR TECHNICAL/INDUSTRIAL CO-OPERATION.

1/. Co-operation between Technical High Schools and  
and Institutes with Industry.

Dr. Moarifi, Director General in Ministry of Industry express his interest on participation in International Conference to be held in Poland in Spring 1979 in programming and establishing permanent mutual co-operation between High Technical Schools and Industry in order to educate proper specialists according to the needs of local national Industries.

2/. Co-operation with Centre of Information /Warsaw/ on Building  
Materials and Building Construction Methods.

a - establish permanent exchange of information on an international scale using Polish Thesaurus in Centre of Information and utilizing Warsaw Permanent Exhibition on Construction "BUDEXPO"

b - establish permanent co-operation with Polish, Hungarian, Czechoslovak or Yugoslav Institute for Technology and Construction.

These two items are of special interest to the BUILDING AND HOUSING RESEARCH CENTRE /as p.4/ and THE MINISTRY OF HOUSING AND URBAN DEVELOPMENT /as p.3/.

Mr. Towfighi which some time ago attended in Stettin, Poland training course on country and town planning, express desire to have a list of Polish Architects and Town-planners in order to appoint them in the Ministry of Housing and Urban Development in Iran.

c - transfer of technology and establishing of co-operation in new industrial system of prefabricated small, versatile elements suitable for low cost housing and industrial building which had been presented on the Joint Consultation on Prefabrication for Industrial Construction /UNIDO 29 Sept -4 October 1975, Poland/.

This item is of interest to the Building and Housing Research Centre. Mr. Esandar Shayani, research engineer from this Centre attended the above mentioned Joint Consultation in Warsaw and Kazimierz.

Mr. Hormoz Familly acting Director will request UNIDO via UNDP-Teheran Office to organize a special meeting in 1978 in Katowice and Stalowa Wola, where the new settlements are under construction and the machines for hollow block production are produced /in Stalowa Wola Mill/.

This item is also of interest to the Syndicat of Construction Companies as a low cost method which can be applied to erection of new settlements for the staff of new build factories as well as for the quick reconstruction of villages destroyed during last earthquakes while applying simple reinforcement steel bars inside prefabricated elements.

### 2/ Co-operation in textile industry:

with Polish Technological and Design Institute

- in preparation jointly techno-economic studies concerning the production of spare parts for exploited in Iran textile machinery.

In order to reduce increasing importation of spare parts from several countries and for several types of machines it is necessary to start with investigation for local production of some amount of spare parts.

According to the information of Iran Chamber of Commerce, Industry and Mines, the existing textile production will be extended. Because the main factories are located outside Teheran, The Chamber General Secretary Mr. Bonakderpour will organize next month special meeting with privat factories owners from Esfahan, Mashad, Kermaanshah and others to discuss the question and to send the letter to UNIDO via UNDP Teheran.

There are discussed also following problems:

- remunerativeness study for launching of production of certain types of machines,
- study for launching of simple looms production,



- study for production of simple looms and ring spinning machines for cotton and wool,
- assistance of establishment of vocational school for maintenance, repair and operating textile machines.

All these items are of special interest to the Iran Chamber of Commerce, Industry and Mines.

#### 4/ Co-operation with Polservice in the field of consultancy.

The Chamber of Commerce General Secretary advises Polservice to establish a Branch Office in Iran and to register formally as soon as possible in the Iran Plan and Budget Organization. The General Secretary handed to me a full list of acting Consultant Engineers firm and advised to enter in collaboration with the similar to Polservice local firms. He recommended some serious of them : COBAR, FIRST CONSULTING, URBAN and ELECTROPROJECT from Yugoslavia.

There is also possible to co-operate with Canadian firm in the big project of water supply and sewerage system for Teheran town rapidly expanded /UNDP assistance/.

#### 5/ Co-operation in the Sugar Industry.

Between Iran Ministry of Agriculture Sugar beet Institute with co-laboration with Ministry of Industry and Polish Sugar production Institute, Sugar beet Institute and Institute for Mechanization in Agriculture.

Dr. Omidvar, Director General of Sugar beet Research Institute in Iran has been informed about Polservice's sugar beet experi-

mental plantation in Libya in similar to Iran climatic and soil conditions /max. crop from ha 81 tons/.

Dr. Onidvar will prepare special report to the Minister of Agriculture in order to receive permission for the co-operation in following problems:

a/ with Institute of Mechanization for use of:

\* hand operating tools for small farms / 1-2 ha for beet cultivation contracted by Sugar Factory/

- horse drawn machines for medium size farms /5-10 ha/

- tractor drawn machines for big farms /20 and more ha/

b/ with Institute for beet plantation in industrial scale in:

- seeds selection

- recommended time for seeding and harvesting,

- apply of fertilizers, herbicides and pesticides,

- watering system

- utilization of leaves

c/ with Sugar production Institute for

production of sugar and some by products as fodder east, bakery east, alcohol and others.

Iran in Vith 5 years plan has to erect new sugar factories and has to enlarge cultivable soil for the industrial sugar beet cultivation.

Iran has also to extend local milk production and to stop milk powder import. The by products from sugar factories - fodder east and the leaves from roots are excellent food for the cows.

6/ Co-operation in mining and processing of non ferrous metals.

Dr. Moarifi, The Director General in Ministry of Industry and Mining is interested in establishing co-operation with Polish Mining and Metallurgy Union of non ferrous metals. Especially:

a/ with Institute for non ferrous metals in the field :

- of non ferrous ore dressing and beneficiation process,
- of hydrometallurgical production and refining methods of copper zinc and accompanying metals,

b/ with Polish Copper mining and metallurgy Combine:

- in prognoses and plants and development of mining,
- in complex management of non ferrous metals ores deposits,
- in new method in modernizing of technology of shaft sinking and driving of crosscuts etc.,

Dr. Moarifi requests Polaersive to send appropriate catalogues and description to the "National Copper Industry of Iran", Boulevard Elisabeth N5 with reference to the discussion between him at me.

I R A Q

19 January - 29 January 1978.

IRAQ, Baghdad  
29 January 1978

I. INSTITUTIONS INTERESTED IN CO-OPERATION.

1. Federation of Industries /Baghdad, Al-Khalami square/

Mr. Abdal Kaddeir, Abdul Zetif - Director General and Mr. Kahtar Al-Orfali - Director Documentation and Public Relations advised to establish co-operation with state owned organization while the privat sector and Federation is interesting of reciving from UNIDO assistance in sending for 2-3 months period the specialist for co-operatives in small scale industries.

2. Ministry of Industry

Mr. Subhi Al Samarraï, Under Secretary of Industry and Minerals after short discussion ordered to assist me in contacting following state organizations:

3. State Organization for Industrial Development

Dr. Ferhang Jalal, President, Permanent Representative of Iraqi Government to UNIDO, tel.80464, telex 2224 SINAI,  
Mr. Nedhim D. Salman, Director for Industrial Development,  
Mr. Yousif M. Al-Khanaty, Director Guidance and Relations  
Baghdad, Semiramis Square tel. 86283-7.

4. State Organization for Engineering Industry

Mr. Al- Hamdani, President,

5. State Organization for Minerals

A. Danhash C.Eng.F.I.Mech E. President. tel 92361, telex 2292  
SOM IR, P.O.Box 2330 ATMIJA.

6. State Organization for Food Industry

Mr. H. Abdul Rashid, President

7. State Organization for Chemical Industries

Mr. A.H. Al Kindi, President, tel 67554

8. State Organization for Building Materials Industry

Mr. Rofa, President

9. Ministry of Housing, State Organization for Housing and Reconstruction, Design Office.

Miss Suhavi Al Sinawi Abdullach, Al Khulani square tel 69741

II. PROPOSALS FOR TECHNICAL/INDUSTRIAL CO-OPERATION.

1/. Wood processing industry

Co-operation with Polish Wood Technology Institute in mechanical wood processing, saw milling, furniture production, preservation of wood and wood based products, paper production environment protection against pollution.

Participation in 3 weeks training course to be held in Poland Autumn 1978.

2/. Mining

Co-operation with Mining and Metallurgy Union of non ferrous metals:

ore dressing and beneficiation process, refining methods for copper and zinc,

evaluation, processing and personnel training in minerals as: salts, sulphur, potassium etc.

### 3/. Machine Building Industry

Co-operation with "Bipromasz", Polish Institute for Machine Building Industry in:

forges, foundries, boiler houses, compressor stations,  
plants which manufacture hardware for households, craftsman's  
workshops /keys, knives, locksmiths, tools etc./  
plants which manufacture agricultural implements e.g. rakes, hoes,  
repair shops for mechanical equipment

### 4/. Co-operation between Industry and Technical High Schools.

Participation in planned for 1979 International Conference in  
programming and establishing permanent co-laboration between lo-  
cal technical and vocational schools and Industry.

### 5/. Sugar Industry

Co-operation with Polish Sugar Institute, Institute for Mechanization in Agriculture and Institute on sugar beet cultivation in industrial scale.

Seeds selection, fertilizers, herbicides, pesticides, watering,  
farmers training, harvesting and sugar beet processing,

hand operating tools for small farms, horse drawn machines for  
medium size and tractor drawing for big farms,

Experimental plantation in specific climatic conditions and soil  
properties "desert sugar beet plantation".

### 6/. Milk production

Co-operation with Polish Union of co-operatives for milk and  
milk products production in:

- cattle breeding using sugar beet leaves and other by products from sugar beet processing,
- designing of milk plants according to FAO/ICP standardized pilot milk plants manual.

#### 7/. Chemical Industry

Co-operation with "EROSYCHEM" Polish Engineering Company for chemical synthesis industry in production of: fertilizers, polyester, methanol and others.

#### 8/. Transport Industry

Co-operation with Polish Institute in: programming of development of railways, electrification of suburban railways, training in maintenance and repair of wagons hopper type for grain, for cement, for phosphates, cistern for chemicals, cool containers etc.

#### 9/. Low cost Industrial Construction

Co-operation with SARP, Polish Architects Association and Steel Mill Stalowa Wola in production of prefabricated elements for low cost housing, industrial and agricultural settlements / vide UNIDO Joint Consultation on Prefabrication for Industrial Construction held in Poland 29 Sept-4 October 1975./

#### 10/. Building Material Industry

Co-operation with Polish Centre of Information on Building Materials using training centres in Warsaw and Katowice for teaching technical managerial staff in construction and utilizing permanent exhibition in Warsaw on building materials, methods of construction and designs.



11/. Textile Industry

Co-operation with Polish Design and Research Institute "Polmatex-Projekt" in:

techno-economic study for the production of spare parts for exploited textile machinery,

- establishment of vocational school on mechanic-textile specialization.

In the conclusion of several conferences, The State Organization for Industrial Development promised to collect the detailed proposals from all State Organizations as in Part I, and to send with appropriate letter to UNIDO via UNDP in Baghdad.

J O R D A N

29 January - 6 February 1978.

Jordan, Amman  
6th of February 1978

I. INSTITUTIONS INTERESTED OF CO-OPERATION.

1. Share Management Services LTD

Management consultants, Industrial, Financial, Marketing, Economic Computers, Managerial and Statistical Consulting Services.

Mr. Wasaf Azar, Managing Director

P.O.Box 3172, tel 61280, telex 1598 JO, Amman, Jordan.

2. Federation of Jordan Chambers of Commerce.

Mr. Fuad Y. Abu Hijlah, Director General

P.O.Box 7029, tel 22169, telex 1543 Att. FJCC, Amman, Jordan

3. Amman Chamber of Industry

Mr. Ali T. Dajani, Director, P.O.Box 1791, tel 22142, Amman, Jordan

4. National Planning Council

Mr. Tayseer Abdel Jaber Ph.D. Secretary General

P.O.Box 555 tel 63350, telex 1319 JO, Amman, Jordan.

5. Royal Scientific Society

Dr. Eng. Rawhi J. Sharif, Ph D. Msc Bsc, President

P.O.Box 6945, tel 67111, Amman, Jordan.

6. Housing corporation

Mr. Hamdallah El Nabulsi, Director General, Mr T.K. Bushnag, Architect, Town Planner, B.Arch.M.C.P. Deputy Director tel 24136

7. Natural Resources Authority

Mr. Yousif Nimry, Director General

8. Ministry of Industry and Trade

Dr. Hashim A. Dabbas, Under Secretary Ministry of Industry and Trade

II. PROPOSALS FOR TECHNICAL/INDUSTRIAL CO-OPERATION.

1/. Co-operation with Wood Technology Institute in Poland in mechanical wood processing sawmilling, furniture, packaging production, particle boards, fiber boards, mechanization and automation. Participation in organized by UNIDO training course in mechanical wood processing to be held in Poland Autumn, 1978.

Jordan is an importer of timber from Asia and Europe countries. It is of special interest to Jordanian Institutions problem of economically organizing mechanical wood processing plants.

2/. Co-operation between Technical High Schools and Technical Institutes with local Industries.

Participation in International Conference to be held in Poland in Spring 1979 in programming and establishing of permanente co-ordination of teaching and research programme in Technical Academies and Institutes with the needs of local Industries.

In Jordan are under construction following projects:

- Post-graduate Studies in the Faculty of Science at the University of Jordan. This project aims at providing an adequate number of teaching staff, as well as necessary laboratories and equipment for the post-graduate studies and research programmes / in co-operation with UNDP/,

- Faculty of Engineering and Technology at the University of Jordan. This project aims at participating in the preparation of an adequate number of engineers for several branches of industry,

- Technical Institute /Polytechnic/ at Husun. This project aims at contributing to the provision of technical skills required for economic development in Jordan. The Institute will have an annual intake of 120 secondary school graduates and will offer a two-year programme of study covering the following specializations: food industries, vegetable and fruit canning, textiles, petrochemicals, metal extraction and chemical industries.

3/. Co-operation with Poland's Building Materials and Building Construction methods Centre.

Utilization of "THESAURUS" of Centre in exchanging of information on an international scale in both forms: pre-machine /indexing of documents/ and machine /magnetic tape information transmitters.

New industrial system of prefabricated small versatile elements for low cost industrial and housing building presented on the Joint Consultation on Prefabrication for Industrial Construction /UNIDO 29. Sept. - 4 Oct. 1975./

The Royal Scientific Society conducts research and studies. Its services are directed toward the process of development of industrialization. Within the R.S.S., Building Materials Research Centre is completing the process of equipping the Building Materials laboratories for research on building materials including research on prefabricated low cost dwellings from local building materials.

This is especially important because Jordan is rich in various kinds of building materials.

Housing Problem. Economic and social progress has increased the demand for housing. Migration from rural areas to the cities has been on the increase. The city of Amman total number of inhabitants rose from 45 thousand in 1948 to 450 thousand in 1967 and more than 800 thousand in 1976.

Natural population growth, the circumstances prevailing after forced migration that occurred in 1948 and 1967, have all led to a virtual housing crisis. Furthermore rural housing need the modern living conditions. All these factors call for the co-ordination of public and private sector's efforts to provide low-cost housing.

#### 4/. Co-operation in Textile Industry Problems.

With Polish Research and Design Office Polmatex-Project, represented by Polservice in:

Techno-economic study for the production of spare parts for textile machines in order to reduce increasing import of spare parts from abroad.

#### 5/. Co-operation between Natural Resources Authority and:

Union of Mining and Metallurgy of non ferrous metals and

Union of Hydrogeological Enterprises in:

- ground water exploration and evaluation of ground water resources
- radio isotope investigation in wells
- drainage for underground and open cast mines
- investigations of physical and mechanical soil properties,

Engineering and Construction Company for Chemical Synthesis  
Industry in:

organic synthesis, petrochemical plants, nitrogen compounds, calcium carbide, technical gases and coal derivatives.

6/. Co-operation in sugar Industry with Polish Sugar Institute

As a first step for large scale sugar production programme and sugar beet cultivation, Jordan is willing to erect refinery for imported /probably from Sudan/ raw sugar. In the future there will be organized local sugar beet cultivation and new sugar beet factories have to be erected.

LIST OF SMALL AND MEDIUM SCALE INDUSTRIES  
PROPOSED FOR JOINT VENTURES IN JORDAN  
(Without Obligations)

---

- 1./ Poultry farm with fodder plant
- 2./ Telephone assembly plant
- 3./ Chemical plants producing intermediates for paint and pharmaceutical industry
- 4./ Calcium Carbide plant
- 5./ Oxygen plant
- 6./ Hard PVC pipe plant
- 7./ Vacuum flasks plant
- 8./ Electricity meter assembly plant
- 9./ Hardware manufacturing plants ( jerricans, hinges, locks, padlocks, agricultural tools and implements etc.).
- 10./ Scrap melting and processing plant
- 11./ Fruit juice plants
- 12./ Preserved fruit, jam, marmalade plant
- 13./ Prefabricated house <sup>panels</sup> panel plant
- 14./ Glass factory
- 15./ Measuring instrument plant
- 16./ Steel cylinder plant
- 17./ Welding electrode plant
- 18./ Bicycle assembly/manufacturing plant
- 19./ Steel wire drawing plant
- 20./ Shoe manufacturing plant
- 21./ Vacuum technical plant for manufacturing lamps, bulbs, etc.
- 22./ Electrical fittings manufacturing plant (sockets, plugs, switches, etc.)
- 23./ TV assembly plant.



S Y R I A

9 - 19 February 1978.

Syria. Damascus  
7 - 19 February 1978

I. INSTITUTIONS INTERESTED OF CO-OPERATION

1. Ministry of Industry

Dr. Abdalla Sallata , Under Secretary Ministry of Industry  
suggested co-operation in following fields:

- wood industry - General Organiz. Chemical Industry
- building material - General Organization Building Industry
- sugar industry - General Organization for sugar Industry in Homs
- textile - General Organization for Textile Industry
- chemical industry -- General Organization for Chemical Industry
- Engineering - General Establishment for Engineering Industry

2. General Organization for Textile Industry

Mr. Abdullatif Kutait, General Director, Damascus, Fardos str  
P.O.Box 620 telex 11011, tsl. 116200.

3. General Organization for Building Industry

Mr. Darwiche Fouad, Director General, Mezze, Damascus tel 661775

4. Industrial Testing and Research Center

Mr. Zafer Sawaf, Director General, Damascus P.O.Box 845.

5. General Establishment for Chemical Industry

Eng. Salim Babil, Director General, Damascus, P.O.Box 5447

6. General Organization for Engineering Industries

Eng. Nassouh Malas, Director General, Damascus P.O.Box 3120

7. Ministry of Transport

Dr. Anwar Al Barazi, Deputy Minister and Joseph Sednawi, Director of Studies Department.

8. General Organization for Sugar Industry.

Mr. Jamil Al Badri, Technical and Production Director, Homs P.O.Box 429, Syria "COFS".

II. PROPOSALS FOR TECHNICAL/INDUSTRIAL CO-OPERATION

1/. Textile Industry

Co-operation with Polish Research and Design Office Polmatex-Project represented by Polservice in elaboration techno-economical studies for the local production of spare parts for textile machines,

Co-operation with Polish Textile Technology Institute and participation in training courses organized by UNIDO in Lodz every year.

2/. Building Industry

Co-operation with Polish Building Information Centre, exchange of information, visiting permanent exhibition on Construction in Warsaw and

establish co-operation in application of new industrial system of prefabricated small versatile elements for low cost housing and industrial buildings.

3/.Scientific Co-operation between Syrian Testing and Research Center and similar organization in Poland or other countries in:

- research and laboratory testing in organic and inorganic chemistry and textile products
- test of imported and exported products: food, rubber, plastic, cement, wool, cotton, colour fastness, leather, paints, glass etc
- in executing mechanical and electrical tests,
- in metrology, standardisation and technical information

4/. Co-operation in Chemical Synthesis Industry between General Establishment for Chemical Industry and "Prosynchem" represented by Polservice in: petrochemicals plants, ammonia plants and others.

5/. Co-operation in Leather Industry between General Establishment of Chemical Industries and Polish Leather Institute in exchanging technology of leather goods production.

6/. Co-operation between Technical High Schools and Industry

Participation in International Conference to be held in Poland in Spring 1979 in programming and co-ordination of teaching programme with industry

7/. Sugar Industry

Co-operation between General Organization for Sugar and Polish Sugar Institute, Institute of Mechanization in Agriculture and Sugar beet Cultivation Institute.

In Syria, Homs region exist two sugar factories : one build in 1947 and other new erected. Each of them of ca 1.000 ton/Day capacity Syria will expand cultivable area and will erect 2 - 3 new sugar factories. Actually General Organization is interested of receiving specialist for production bakery and fodder east in existing factories.

8/. Wood Industry

Co-operation with Polish Institute of Wood Technology in sawmilling furniture, plywood, fireboard and veneer production, in participation in training course to be organized in Autumn 1978 in Poland, in testing some kind of Syria growing trees suitable for pencils production.

9/. Co-operation in machine building industry between General Organization for Engineering Industry and "Bipromasz" represented by Polservice in

plants which manufacture hardware for households and craftsman's workshops /keys, knives, locksmith's, /agricultural implements, repair workshops for mechanical equipment etc.

10/. Co-operation in roads and road transport facilities between Ministry of Transport and Polish Institute of Transport.

Actually is possible cooperation in evaluation of offers from 12 selected companies for feasibility study on rebuilding the Damascus Medina railway line.

GENERAL RECOMMENDATION

Based of expressed proposals of co-operation in particular countries it is recommended to UNIDO:

1. To send the invitations for attendance:

- Training course in mechanical wood processing to be held in Poland autumn, 1978,
- International Conference in subject of co-operation between Technical Universities and Institutes and local Industry to be held in spring 1979.

2. To contact appropriate institutions in Poland during April-May 1978, in order to discuss their willingness and possibilities of co-operation with selected institutions from :

IRAN  
IRAQ  
JORDAN  
SYRIA

The preliminary contacts could be prepared by Polservice.

3. To prepare the time table for the meeting to be organized in Poland and Yugoslavia in order to assist selected institutions interested in establishing mutual co-operation.

Schedule of the proposed times for visiting selected industries in Poland.

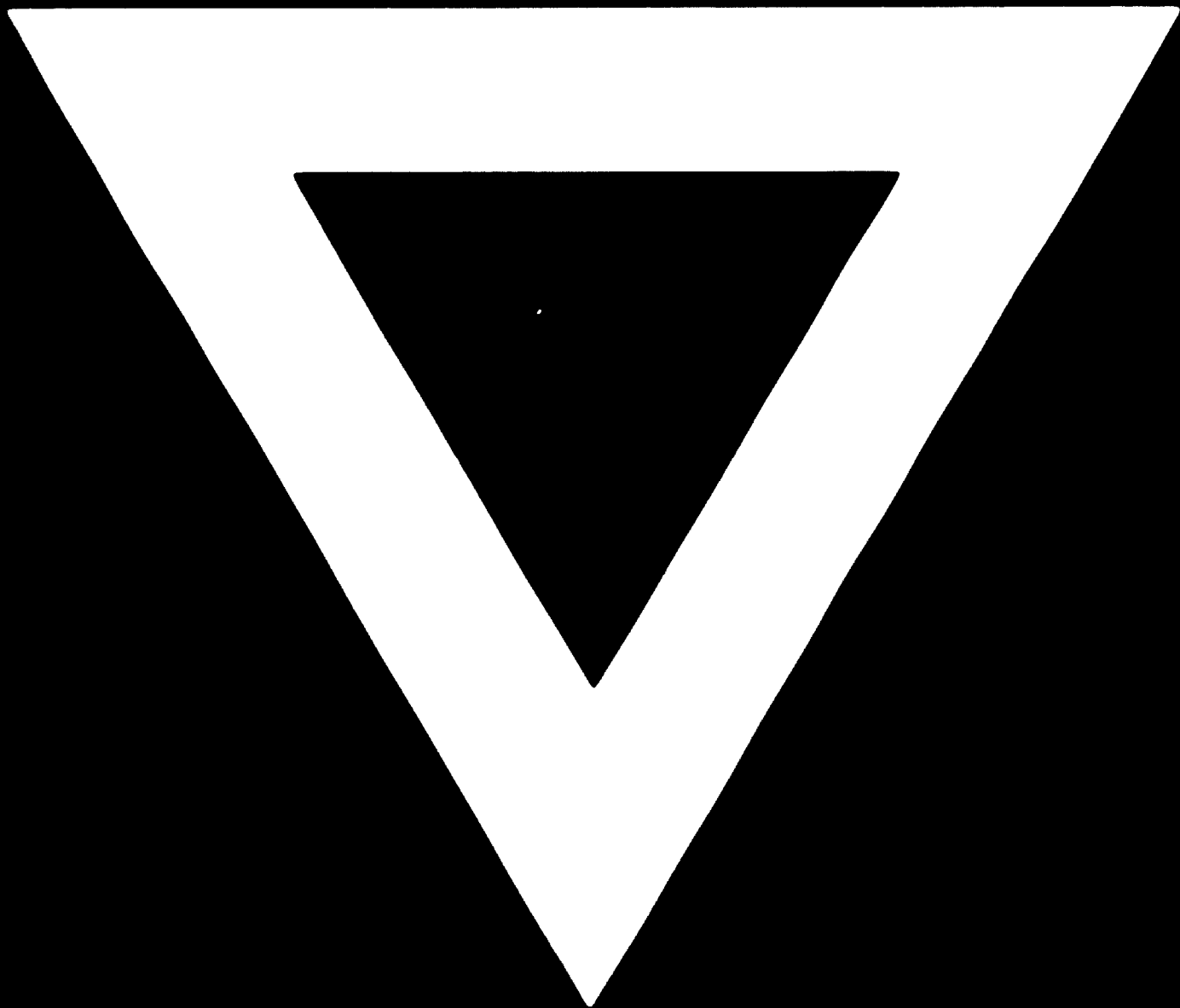
Industry	Countries interested	Place	Days
Textile	Iran, Iraq, Jordan, Syria	Łódź	1
Building ind. Low cost housing	Iran, Iraq, Jordan, Syria	Warszawa Katowice Stalowa Wola	3
Mining Chemical ind.	Iran, Iraq, Jordan, Syria	Katowice Gliwice Kraków Płock	2
Milk	Iran, Iraq	Warszawa	1/2
Lether	Syria	Kraków	1/2
Sugar ind. Sugar beet cultiv. Mechanization in Agric.	Iran, Iraq, Syria	Warszawa Bydgoszcz	2
Transport	Iraq	Warszawa	1/2
Techn. University	Iran, Iraq, Jordan, Syria	Warszawa	1/2

10.

1. Warszawa: Building, Transport, Sugar, Milk ..... 3 days
2. Łódź: Textile ..... 1 "
3. Katowice, Gliwice: Mining non ferrous met, chemical .. 2 days
4. Krakow: Mining, Chem. Lether ..... 2 "
5. Płock, Bydgoszcz Chemical ind., Sugar beet ..... 2 "



**C-671**



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