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TO AFGHANISTAN^{1/}

9 - 23 June 1976

(TS/AFG/76/002)

prepared by
the Secretariat of UNIDO

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I. INTRODUCTION AND SUMMARY

Following a series of communications between UNIDO Headquarters and the UNDP Resident Representative in Kabul it was determined that the Government of Afghanistan would welcome a UNIDO mission to discuss current and future technical assistance to the industrial sector. The mission visited Afghanistan between 9 and 23 June 1976. It comprised Messrs. W. R. Millager of the Factory Establishment and Management Section, Team Leader; Mr. Y. Ljubimov of the Feasibility Studies Section, backstopping officer for the Industrial Services Project (AFG/72/003); and Mr. N. Yamamoto of the Industrial Training Section, formerly UNIDO's Afghanistan desk officer. Mr. P. Laming, Senior Industrial Development Field Adviser based in Teheran, joined the mission for the first two days and Mr. P. Hostettler, Assistant to the SIDFA based in Kabul, participated full time.

Although detailed terms of reference were not formally adopted, the mission had three main tasks:

- 1) Discuss the future of the Industrial Services Project (AFG/72/003);
- 2) Identify the Government's requirements for technical assistance to the industrial sector during the period of the new national Seven Year Plan and the Second Country Programme (i.e. through 1982); and
- 3) Identify appropriate forms of UNIDO assistance during the same period; indicate possible means of finance including, i.e., UNDP Country Programme, other UNIDO, UNDP and UN resources, and potential funds-in-trust arrangements with bilateral and/or multilateral agencies.

The mission conferred with Government Officials and technical assistance personnel in Kabul; it also travelled to the northern section of the country and carried out factory visits in Pul-i-Khumri and Mazar-i-Sharif, as well as in Kabul. Findings and tentative recommendations were discussed with key officials as the mission progressed. A final review meeting led to specific suggestions for interim and preparatory activities looking forward to orderly development of a substantially expanded programme of UNIDO assistance in Afghanistan. Findings and recommendations are detailed in the following sections of this report.

The mission wishes to express its deep appreciation for the close cooperation accorded by the Government in carrying out its work, for the generous support of the UNDP officials, and for the warm responses encountered on all sides from the people it met in Afghanistan

Capsule Description of the Industrial Sector and its Prospects

Afghanistan is a landlocked country with difficult transportation routes from the nearest seaports. The population of about 17 million is spread unevenly in an area of 650,000 square kilometers, much of which is mountainous and extremely dry. The gross national product is about \$1.5 billion, or somewhat less than \$100 per capita.

Despite the natural difficulties, the Afghan agricultural sector is well developed, often employing extensive irrigation systems. Some important products are wheat, fruits, nuts, vegetables, cotton, rice, maize, sugar (mainly beet), sheep and cattle. There are known to be varied and substantial mineral deposits, but so far only natural gas, coal, salt, chrome, limestone, clay, gypsum, and lapis lazuli have been exploited.

In accordance with the Government objective of balanced economic development, industrial development has assumed increasing importance during recent years. Statistically, it is said that industry accounts for about 13-15% of the economy although more than half is apparently accounted for by small scale enterprises in the countryside such as hand spinning, weaving, carpet making, and karakul production. Nevertheless there is an expanding modern industrial sector which is naturally strongly related to the opportunities for processing agricultural products (e.g. textiles, leather) and to the needs for agricultural inputs and basic infrastructure (fertiliser, machinery and spare parts; cement and other building materials; natural gas treatment).

The Government has assumed a major role in establishment, ownership, and management of industry. This role will evidently be further enhanced during the Seven Year Plan now in process of being published. The plan is reported to include major expansions or new capacity for cement, textiles, sugar and agricultural equipment, i.e., which would be principally Government owned or controlled. There is also a very active group of private industries and the Government seeks to continue to benefit from private

initiative and capital in the future.

Since details of the Seven Year Plan have not yet been released, the mission does not have official figures on proposed industrial investment and growth in output, but it is understood that more than \$1,000 million worth of investment projects are under study, and that potential joint venture partners have already been identified for a number of them. It is clear that the added burden of developing and controlling new plants will intensify the existing pressure on the Government's institutional structure, associated with management of already operating plants. The Government has clearly foreseen and accepted this challenge; it is striving to prepare itself and the people of Afghanistan to meet the increasing demands of an expanding and more sophisticated industrial sector.¹

The Government has expressed a need for assistance in various aspects of its industrial development programme; this report addresses requirements and possibilities for such assistance.

¹A Study of Afghanistan's industrial institutions in the context of the planned growth programme has been undertaken by UNIDO's International Centre for Industrial Studies in cooperation with the Government.

II. INDUSTRIAL SERVICES PROJECT (AFG/72/003)

A major factor in establishing the timing of the UNIDO programming mission was the fact that the Industrial Services Project was "in trouble". The current project revision was signed in July 1976 and provided for a team of four experts to assist the Ministry of Mines and Industries until the end of 1977. The assigned functional task areas may be summarized as follows:

- a) Industrial policies, planning, and programming; setting up an industrial information system;
- b) Preparation of pre-feasibility studies for new industries;
- c) Evaluation of studies prepared by others, and other tasks in support of the establishment of new industries;
- d) Ad hoc consultancy assistance to improve the operations of existing industries.

Unfortunately the expert posts, except for that of the project manager, were not all filled immediately, and uncertainty increased with the onset of the UNDP financial problem, as most of the funding was frozen. An industrial engineer was fielded during January 1976 with a one-year contract, but the two other experts, although identified, have still not been finally cleared.

Although progress had been consistently reported to be satisfactory - given the incomplete state of the team - the Government did not request renewal of the project manager's contract and he left at the end of April 1976. Then during May UNIDO learned that there was a possibility that the project would be cancelled and the "savings" applied to an ILO project. This was the situation upon arrival of the mission.

The mission sought to sort out the complex details of the situation through a series of discussions with concerned officials in the Ministry of Mines and Industries and the Ministry of Planning and UNDP and UNIDO field personnel. It also reviewed numerous reports and other documents prepared by the project.

As a result the mission finds the following:

- 1) Rather than wishing to do away with the Industrial Services team, the Ministry of Mines and Industries - at all levels - wishes to strengthen it.

2) In carrying out the terms of the newly completed Seven Year Plan the Ministry of Lines and Industries wishes to have intensive assistance for (a) developing new industries; (b) for improving the operations of existing industries and (c) for industrial training. These of course are all within the scope of the project's original objectives and the Ministry would like the Industrial Services team to be strengthened to make strong contributions in these areas.

3) Experience since the project document was signed indicates that the project as written is too broad to be effectively managed under local conditions and does not provide enough resources to carry out its stated objectives. Thus a major revision should be considered as soon as the short range manning problem is solved.

4) Experience during the past year also indicates that the total institutional framework in which the project operates is not compatible with the previous idea that the industrial services project could be an all-embracing "umbrella" project for assistance to the industrial sector. The mission believes that this over-ambitious concept contributed to the "communications problems" (between departments of the Ministry of Lines and Industries and between that Ministry and the Ministry of Planning) which are said to have delayed expert selection and other routine matters vital to effective project implementation.

5) The mission finds that the Industry Department, to which the project has been attached, clearly needs and desires help in carrying out its programme related to new and existing industries. There is also a separate, parallel department in the Ministry called the Planning Department, which the Ministry also seeks to strengthen. The mission does not believe that the single project can serve both Departments under existing or foreseeable conditions. Thus, the inclusion of "planning" responsibilities under the Industrial Services project has been a basic source of friction. This is especially relevant since all formal communications regarding technical assistance are channelled through the Planning Department on their way to the central coordinating office in the Ministry of Planning.

6) Even without most of the planned international team, the project produced a large number of reports and other documents. Although the documents are impressive in their scope, the mission feels that in retrospect it might have been better to limit the number of documents somewhat and concentrate on achieving a higher standard of thoroughness.

We are fully aware of the natural pressures for completing a number of assignments very quickly and of the lack of detailed statistics and other supporting information. But the observation is recorded as caution for the expanded team during future operations.

In response to the foregoing, the mission prepared a rough draft paper outlining a possible "modular" approach to reshaping the industrial services project. The concept was to complete the presently planned three-man team and employ it as a specialized new-industries unit (prefeasibility studies and evaluation work), then to create two additional specialized teams for existing industries: one a consultancy task force for high priority operational improvements and the second, for developing and installing uniform systems of financial and cost accounting, and personnel management. Finally the expected industrial training adviser would be extended and asked to help develop a separate large scale project.

Because of the substantial increase in resources needed, it was suggested that the Government might invite UNIDO to seek alternative financing sources (such as bilateral funds-in-trust) for the two teams to assist existing industries. Further, a separate industrial planning project would be built upon the base of an "industrial planning mission" already in the pipeline.

Subsequent discussions in the Ministry of Mines and Industries and the Ministry of Planning apparently verified most of the mission's analysis, including the concept of separate assistance projects for new industries development (Industrial Department) and Industrial Planning (Planning Department) within the Ministry of Mines and Industries.

The Training Adviser appears to be fully agreed upon; fielding of the industrial economist and the financial adviser was agreed, subject to approval of a detailed workplan which is being prepared locally.

A modified approach to assisting existing industry was suggested by the Ministry of Planning. While strongly supporting the concepts of applying improved industrial accountancy systems and providing a task force to increase operating results from existing industrial investments (not limited

-1-

to "capacity utilization"), the Ministry wondered whether there might be advantages to organizing this work to tackle a single industrial branch first, on a pilot basis. This would no doubt logically be the textile industry because of its primary importance and extensive further development plans. But the activity would be separated from the industrial services project, and it is further discussed below in Section III and in Annex A.

III SUMMARY OF ACTIVE TECHNICAL ASSISTANCE REQUESTS AND SUGGESTIONS

In the course of its consultations the mission discussed a great many potential technical assistance activities. Some are approved projects, others have been officially requested but not yet approved. Still others are in earlier stages of preparation, while some are only "ideas".

Even though there are more project possibilities than available resources can support, the mission has recorded most of them in tabular form (Table 1) and briefly commented on them in the text. This is considered to be an especially useful exercise, since the time perspective is long, and worthwhile projects which can't be funded now, may be picked up later. The items are arranged under two main headings, "Functional Assistance" and "Branch and Product Assistance".

It is especially noteworthy that in the interests of economy and managerial efficiency, elements of some of the functional activities summarized below could be combined during subsequent project design deliberations.

A. FUNCTIONAL ASSISTANCE

The following items reflect requests and suggestions for activities which would span various industrial branches or products.

1. Industrial Services

The mission's observations and recommendations concerning the Industrial Services Project (APG/72/003) are detailed in Section II of this report.

2. Industrial Planning

The industrial section of the Seven Year Plan was prepared by a team which included personnel from the Ministry of Planning and from the Ministry of Mines and Industry and other ministries involved in industry, as well as some bilateral advisers. Follow-up planning activities to carry out the objectives of the plan and monitor its implementation will no doubt require further strengthening of existing organizations. The Ministry of Mines and Industries intends to strengthen its Planning Department, and the latter is interested in UNIDO assistance. Ministry of Planning indicated support for the idea of posting a single planning advisor, with an expanded project likely as the role develops. Ministry of Mines and Industries is drafting terms of reference for an initial assignment. (Terms of reference included in the inactive pipeline project (APG/11/32) are now obsolete).

3. Industrial Information

The Government is still interested in the Industrial Information exploratory mission (APG/11/31) although it has been deferred to 1971 because of funding restrictions. There is no doubt in the minds of the mission workers that there is an urgent need to build up a system of collecting and analysing information on the industrial sector. This is necessary for planning purposes and also for monitoring performance against the plan. Accordingly it is likely that activities in this field may be merged organizationally with those considered under the "Industrial planning" heading. Although a Central Statistical Office has recently been established in the Prime Minister's Office, it will take joint efforts, and considerable time, to build up a fully operational system.

4. Industrial Consultancy

The Government has expressed interest in considering the establishment of an Industrial Consultancy Company which would eventually operate on a fully commercial basis. Preliminary ideas on the subject have been prepared by the Industrial Development Bank, which would like to cooperate in the project. A project data sheet requesting a preparatory mission from UNIDO was revised by the mission and is being processed by the Government.

According to the tentative guidelines, the company would offer services in connection with sectoral planning, pre-feasibility and feasibility studies,

project design, implementation and management. Participation by a foreign consultancy firm in a kind of joint venture is anticipated. The mission will be asked to evaluate the concept and prepare detailed plans if possible.

Even more direct, and hopefully more immediate, in their beneficial effects on output and economic results will be the use of specialized teams and task forces directed either to a functional area such as industrial accountancy (Section III A 7) or to releasing the potential of an industrial branch, such as the textile industry (please see III B 4).

5. Industrial Management

There is no doubt that "capable management" is a cornerstone of industrial development. In the long run (in accordance with the Seven Year Plan and its successors) this means training and on-the-job experience, and this aspect is touched upon in the section on industrial training. There is also a strong management development effect from properly executed consultancy assignments and the proposal for an Industrial Consultancy Company is relevant to this aspect.

Since, as suggested by the above, "management" is such a broad term, the mission has not attempted to cover all possible management-related subjects under one heading. Please see also the following two sections, A 6 and A 7, and the section on the textile industry, B 4, as examples.

It is worthwhile also to note that at least two other UNDP-financed projects - besides the Industrial Services Project - are also designed to make a contribution in the field of industrial management. These are the ILO Management Project (AFG/11/004) and the UIPA project on public administration. The mission is indebted to Messrs. Fooks and Morcross for their generous contributions of information and insights.

6. Industrial Rehabilitation

Capacity Utilization

Operational Trouble Shooting

The Ministry of Mines and Industries has expressed great concern to make full use of existing industrial investment. The mission understands that some factories may need assistance to reach or recover their full operating

potential Examples of such factories are the following:

- Glass factory
- Bicycle factory
- Jallalabad Sugar
- Hazar-i-Sharif / Kunduz Vegetable Oil and Soap
- Plastic pipe extrusion
- Kandahar Fruit Canning

There has been a recent exchange of correspondence on this subject. One possible concept of technical assistance which was discussed by the mission was the creation of a capacity utilization task force which would be able to diagnose problems and either help to solve them directly or arrange for the provision of specialized skill. Implementation is discussed above under Industrial Services (Section II) and more fully under Textile Industry (Annex A), below. The term "capacity utilization" as used here, embraces such concepts as, i.e., productivity upgrading and marketing product mix adaptation.

Industrial Accountancy

Many officials and plant directors expressed their concern over the difficulty in determining how well or badly a factory has performed. The accounts are said to be two or three years behind, in most cases. In one plant the mission was shown incoming orders and goods disbursement papers bearing approximately ten signatures each, and it was stated that similarly complex procedures apply at every step. We also heard reports that most of the publicly owned industries are losing money. Whether the latter is true or not, the mission understands that both key Government officials and industrial managers want to modernize their financial and cost accounting systems, so that they can make sound and timely operating decisions.

There is no doubt that the task of introducing flexible, common systems will be difficult and time consuming. For example, legal requirements under the Tassidy Law may restrict the scope of practicable changes in some areas. The mission believes that a pilot-scheme, concentrating on one or more "willing" enterprises and then spreading the semi-standardized approach to other plants is the best way to begin. Please see Annex A for a suggested approach, involving the textile industry.

8 Industrial Promotion

The Private Investment Promotion Department in the Ministry of Planning is responsible for encouraging development of private industrial investment. It administers the Foreign and Domestic Private Investment Law of 1373 (1954) which calls for collaboration between public and private investment for "progress, coordination and balanced development of the economy".

An investment committee comprising the ministers of Planning (chairman), Finance, Agriculture, Commerce, and Mines and Industry, approves investments to be made under the law, which may involve up to 49% foreign investment. Criteria against which desirability of projects is considered are the following:

1. Maximum use of Afghan raw materials
2. Maximum use of Afghan manpower
3. Import substitution
4. Increase in quantity and value of exportable items
5. Satisfaction of the common needs
6. Use of Afghan industrial products, and
7. Maximum value added

Approved investments receive tax exemptions and favorable customs duty treatment as well as other benefits.

The Department previously received bilateral assistance for a number of years, and a member of the bilateral team was retained for six months during 1975 under UNDP financing (AFG/74/026). A request for follow-up UNIDO assistance has been made but is not yet programmed for implementation. The President of the Department emphasized the need for help in working out rules and regulations for applying the investment law. He also stressed the need to move toward a workable classification of industries to be reserved for either private or public sector investment and those which might be open to both. Finally the question of revising tax regulations would be addressed. There may be a need to review the existing project document (AFG/75/008) in light of these priorities.

The mission also discussed the prospects for industrial expansion in the countryside through the promotion of industrial cooperatives. It was learned

that cooperative factories could, at present, only be created under the Ministry of Agriculture, but would have to carry out their production under the Prime Minister's office.

9. Factory Establishment

The need for accelerated establishment of new industrial enterprises is fully recognized in connection with the Seven Year Plan. The mission's findings on this subject are detailed in Section II which deals with the Industrial Services Project. It should also be noted here that UNDP is presently financing an IED team at the Industrial Development Bank of Afghanistan which has been assisting in the development of that institution, particularly for the financing of small and medium sized private enterprise. The institution's role and programmes are presently under review. As a new approach, the Bank is proposing to associate itself in the creation of an Industrial Consultancy Corporation (see A 4, above).

It is understood that the Ministry of Agriculture also plays an important role in establishing certain kinds of agro-industries, as well as in the formation of cooperatives. In retrospect the mission regrets that its programme did not include consultations with officials of that ministry.

10. Industrial Training

In all of the principal consultation meetings in the Ministry of Mines and Industries and in the Ministry of Planning, the senior officials strongly emphasized the importance and urgency of Industrial Training in Afghanistan.

The Government has already requested an industrial training adviser under the Industrial Services project. Since the original request, the job description has been expanded to include a careful analysis of the requirements imposed by the industrial projects included in the new Seven Year Plan. Because of its increased complexity, the mission has recommended that the three-month assignment be extended to at least one year. This would also permit the adviser to assist in preparation of a longer range, large scale technical assistance project for the training of high level manpower.

Fielding of the training adviser awaits only final confirmation of the Government's selection. It has been suggested that the question of extending the assignment be considered later, to avoid delaying the adviser's arrival.

B BRANCH AID PRODUCT ASSISTANCE

A number of activities have been requested to assist in the development of specific industrial branches or single products. This section summarizes those items which have come to the mission's attention. It should be noted that the items arise from several sources. Quite a few are direct follow-up activities to earlier work carried out by UNIDO project personnel or consultants. Others represent recent suggestions by Government officials or by UNIDO staff. In most cases further details are available from UNIDO headquarters or the UNDP/UNIDO office in Kabul.

1. Petrochemicals

A consultant, Mr. Ferguson, made a preliminary study in 1975 and proposed a phased development which would require substantial export of production in order to be viable. UNIDO has since proposed that an alternative approach be explored, relying in the first stages on relatively small scale batch processing for the local market. Bilateral studies are also being considered, and UNIDO's further activity depends on the Government's analysis of alternatives. At the Government's request, the SIDFA has asked that Mr. Joklik's return mission (please see item E 1) should concentrate on a preliminary outline of project opportunities in this area, relying on natural gas as feedstock.

2. Pharmaceuticals

A project to study the feasibility of establishing a Government drug manufacturing plant (AFG/72/021) has been in preparation for some time. The mission was unable to meet the Minister of Public Health, but did contact an adviser in the Ministry and informally reviewed a revised project proposal. The proposal appears to be technically acceptable and will be officially submitted for Government action.

3. Natural Gas

At the New Delhi meeting on UNIDO operations Afghan officials expressed interest in a UNIDO study on utilization of natural gas. The mission did not receive any further comment on this project, from Government officials, although the SIDFA has communicated previous Government requests to UNIDO (see E 1 above).

4. Textiles

Afghanistan is well established in the textile field, both for traditional and modern production methods. Cotton, woolen, silk, and rayon materials are produced. In particular, cotton textiles are the largest provider of industrial employment and value added in the country. In response to Government suggestions the mission has outlined a proposal for a major technical assistance project. UNIDO will follow up with a detailed work programme for preparatory activities. (Also please see Annex A.)

5. Fibre Industries

The SIDPA has discussed with various officials the possibility of a long range major development programme covering technical and economic aspects of a range of industrial fibers. This would eventually involve agronomic aspects (through FAO's participation) as well as industrial aspects. A draft data sheet has been prepared to provide for a "scoping study" to explore the overall potential in terms of alternative products and technologies, and their economic potentials. This would lead to large scale operations later in the planning period.

6. Leather

The mission was informed by the President, Export Promotion, Ministry of Commerce, that there is a great need for a project to improve leather processing so that export sales can be increased. A draft project document covering a pilot plant for improvement of leather processing was sent to the Resident Representative in June 1976 and could serve as the basis for developing a project.

7. Iron and Steel

There is a sizeable iron ore deposit in a remote section of Afghanistan, and adequate coal deposits also exist. The Government expressed interest in a UNIDO study on iron and steel resources and processing alternatives, at the New Delhi Seminar in January 1976. A draft project data sheet was sent to the Resident Representative in June 1976. This study would consider some non-conventional process possibilities which have not been dealt with in previous pre-feasibility studies, including natural gas utilization for direct iron-ore reduction.

8. Engineering Industries

In June 1966 UNIDO sent three related draft project data sheets to the Resident Representative for transmittal to the Government:

- a) Technology transfer: Agricultural tools and implements, simple metal products, spare parts, etc;
- b) Review of intermediate technology on simple engineering industries;
- c) Assistance to Jangalak Engineering Works: Product diversification, production expansion, and rural industrialization.

The first two projects are inter-regional activities which would assist participating countries to take advantage of developments elsewhere (particularly in other developing countries). For these, UNIDO would like to have an expression of the Government's interest, and of Jangalak's willingness to participate.

The third project suggests a range of activities involving Jangalak — some of which are complementary to work being performed by the ILO team and some of which would be entirely new activities. This should be developed to include progressively expanding supplies of machinery and components to the textile industry.

Although the mission visited Jangalak, the purpose at that time was only familiarization with a major industry. These possibilities for involving Jangalak in the inter-regional and national development projects will need to be discussed in follow-up sessions. There is also a proposal for small volume assembly and progressive production of tractors which has been discussed with the IDPA.

9. Building Materials

A UNIDO consultant, Mr. Selim (AFG/12/001) studied the brick-making facilities around Kabul and made certain proposals involving re-activation of the former Hochtief plant and some laboratory testing of raw materials, i.e. Although the Government has not formally commented on the report, the mission learned that the brick making plant has indeed been re-activated. It would still be timely to learn whether the Government endorses the remaining proposals of Mr. Selim, as some follow-up (including the testing) should then be undertaken.

10. Wood Products

Although wood is relatively scarce in most of Afghanistan, there is a thriving wood products industry - particularly in furniture. There has also been a proposal to establish a wood-wool cement board factory (a preliminary note on such a project was prepared by the Industrial Services Project) and no doubt the production of other wood or wood waste based materials could be considered as alternatives or complements. It should be noted that under the existing methods of forest exploitation by hand labor, many of the wood by-products which could be processed into industrial intermediates are presently consumed as fuel. Thus a study of alternative raw material supplies would seem desirable.

UNIDO has suggested that the furniture and joinery industry could benefit from advice on wood seasoning and on improved production and management methods, and possibly from the services of a furniture designer. A draft project document was submitted in June 1976.

11. Vegetable Oil

The mission visited a large vegetable oil extraction and processing plant in Lazaar-i-Sharif which had been partially erected some years ago, but is still not completed. Details of the background are given in the visit report found in Annex B.

The Government is seeking assistance to complete the plant installation and make it operational. The President of Industries informed the mission that a contract to complete the job was being discussed with a firm in a neighbouring country. The SIDFA has recommended that a higher technology expert should be fielded because of the complexities associated, i.e., with hydrogenization.

12. Food Processing

UNIDO has suggested that the Government consider needs and priorities concerning local processing centres in rural towns and quality control for food processing industries. Two draft project proposals were submitted in June 1976. The mission did not have an opportunity to discuss these suggestions with the Government.

13. Glass

A UNIDO consultant, Mr. Cox (AUG/4.1/69) has proposed an assistance project called "Development of the Glass Industry". The Government is very interested in the subject and there is reportedly a chance of direct assistance from the Chinese. Thus further UNIDO involvement will await the outcome of current negotiations.

14. Miscellaneous

A UNIDO consultant, Mr. Joklik, visited Afghanistan for a few days during May 1976. He discussed a large number of potential industrial opportunities with the Government. The President of Industries expressed a strong desire for a follow-up mission, concentrating on implementation of selected opportunities.

Although there are various interesting proposals which could be followed up, the mission feels it is essential that a second visit be carefully designed to concentrate on one or two areas where short term practical results are likely, or which deserve special priority attention because of their economic potential. (Additional missions could be organized later to consider other ideas).

One very attractive item which Mr. Joklik has agreed to follow-up on is the plastic extrusion machine, which requires only a special die to permit production of badly needed water piping.

A second item which the mission, including the SIDPA, favored strongly is the possibility that Mr. Joklik could make a start on developing the small scale batch production of petrochemicals (see item B 1 above).

TABLE 1 REFERENCE CHECKLIST OF TECHNICAL ASSISTANCE PIPELINE: REQUIREMENT AND SUGGESTIONS

(UNIDO PROGRAMMING MISSION, JUNE 1976)

Title and Project Number	Coop. Agency*	Tentative Expend. Progr. 1		Likely Funding source	Status and comments
		1976	1977		
A. FUNCTIONAL ASSISTANCE					
1. Industrial Services					
a. Ind. Svcs. AF/72/003	MAII	192	200	350	IPF
b. Extensions of 72/003					
2. Industrial Planning					
a. Ind. Planning Mission AFG/75/032	MAIP	25			IPF
b. Follow up Assistance			50	100-500-→	
3. Industrial Information					
a. Exploratory Mission AFG/75/002	MAI		19	250	IPF
b. Follow up assistance					IPF
4. Industrial Consultancy					
a. Formulation and Evaluation Mission AFG/76/004	TBD	15			VC
b. Follow-up assistance	TBD			←--- 750-1000-→	IPF Bilat

*Key to Coop. Agency Codes:
 MAII = Ministry Mines and Ind.
 MAIP = Ministry of Planning
 AF = Ministry of Finance

Dept. = Ind. Dept.
 Dept. = Plng Dept.

VC = Ministry of Commerce
 IPF = Ministry of Public Health
 Bilat = Ministry of Finance

PI = Prime Minister's Office
 TBD = To Be Determined

1 Figures are for rough indication only and do not always agree with earlier submissions; values in 000 US dollars. A number of the items overlap or are otherwise alternative approaches. Thus no total figures are given for this Table

- 1976 funds not yet fully released
- MAI requested substantial strengthening
- Approach to project revision discussed by mission
- Requested before current 7-Yr plan; work programme requires revision (Planning ministry also has one Ind. lang. under UNO/IC project)
- Deferred to 1977
- Urgent need to establish central service for industrial sector
- 'should resubmit candidates now
- PDF revised and being sent to Vienna for consideration
- IDMA has offered to assist in starting an "AICC"
- 'could span pre-investment, establishment and operations
- Draft prodoc also submitted 6/76 w/ "AICC package"

TABLE 1 2nd page

<u>Title and Project Number</u>	<u>Coop. Agency</u>	<u>Tentative Expend. Progr.</u>	<u>Likely Funding source</u>	<u>Status and comments</u>
		1976 1977 1978-82		
5. Industrial Management				
a. Management Assistance for the Textile Ind.	TBD	← 500-1000 →	IPF	See Annex A on Textile Industry
b. Ind. Marketing and Distribution Systems	MF	← 180 →	TF	- Draft prodocs submitted 6/76 w/ "LDC package"
c. Assistance in the Mgmt. of State Enterprises		← 170 -		- may be partly replaced by A4 and A5a.
d. Mgmt. Information Systems for Ind. Sectors		← 149 -		
6. Ind. Rehabilitation				
Capacity Utilization				
Operational Trouble Shooting				
a. Specialized Task Force	TBD		IPF	- Please also see A5a
b. Capacity Utilization Study Mission	MMI	10	SIF) VC	- Suggested by UNIDO in connexion with Govt's request for assistance in ind. rehabilitation
c. Increasing Ind. capacity Utilization	TBD			- Draft prodoc submitted 6/76 w/ "LDC package"
7. Ind. Accountancy and Management Reporting				
a. Ind. Accountancy Team	TBD	← 750 →	IPF TF	- Please also see A5a
8. Industrial Promotion				
a. Assistance to Private Invest. Prom. Dept. AFG/75/005	MF	← 60 -	VC) IPF) Bilat	- Proposed by Mr. Morrison in final report of 9/2/75 and requested by Government
9. Factory Establishment				
a. Accelerated Factory Est.	MMI			- Draft prodoc submitted 6/76 w/ "LDC package"
				- Partly included under A1 and A4, above

TABLE 1 3rd page

Title and Project Number	Coop. Agency	Tentative Expend. Progr.		Likely Funding source	Status and comments
		1976	1977 1978-82		
10. Industrial Training					
a. Training Adviser	MHI	← 50	→	IPF	- Covered under AFG/72/003 (Ind. Svcs)
b. Follow-up large-scale project	MHI	← 500-1250	→	IPF Bilat Bilat	- A major concern of Govt. - Presented by Govt. at New Delhi Seminar on UNIDO operations; Irish Govt. has offered to sponsor directly (6/76) - Draft prodoc submitted 6/76 w/ "LDC package"
c. Establ. of an Ind. Trng. Centre for Engrg.				VC	
d. In-plant group training programme for fleet maintenance		← 104	→		
11. BRANCH AND PRODUCT ASSISTANCE					
1. Petrochemicals					
a. Ferguson Mission	MHI	completed 1975) SIS) VC) Bilat	- Follow-up mission to be pre-feasibility of small-scale batch processing
b. Follow-up mission AFG/76/002		← 50	→		
2. Pharmaceuticals					
a. Feasibility of Establishing Govt. Mfg. Unit AFG/75/025	MPI		17		- Deferred to 1977 - Subcontract proposed sent to UNDP in June 1976
3. Natural Gas					
Study on Utilization of Natural Gas	MIP			SIS S VC	- Interest expressed by Govt. at New Delhi Seminar on UNIDO operations
4. Textiles					
a. Textile Holding Co.				Bilat	- A German expert will propose statutes and organization - UNIDO will be invited to assist in evaluating and follow up Specialized teams for trouble shooting and industrial accountancy
b. Management Assistance				IPF TF	

Title and Project Number	Coop. Agency	Tentative Expend. Prog.		Likely Funding source	Status and comments
		1976	1977 1978-82		
5. <u>Fiber Industries</u>					
a. Preparatory assistance APC/76/001	TSD	24		SIS LFF	- Aims at integrated devel., e.g. of textiles, paper - Draft prodoc prepared by SIMPA
b. Small scale Ind. Silk Processing					
i) mission	EC			T	- PIS needed
ii) follow-up	TSD			SIS	- Major export potential
6. <u>Leather</u>					
a. Pilot plant for Improvement of processing	EC	128		VC	- Major export potential - Draft project proposal submitted in "LJC package 6/76"
7. <u>Iron and Steel</u>					
a. Feasibility Study of Iron and Steel Resources	IBI	150		SIS S.I VC	- Interest expressed by Govt at New Delhi Seminar on UNIDO operations - Draft prodoc submitted 6/76
8. <u>Engineering Industries</u>					
a. Integrated Technology Transfer (Interregional Project)					- Requires only official Government expression of interest
b. Review and Consolidation of Reports and Data on Intermediate Technol. (global) Assistance to Jamjalek Industries					- Draft prodocs submitted 6/76 with "LJC package"
d. Tractor manufacture (low volume)		400			- Provides product diversification - Creates techn. service unit for rural industrialization

<u>Title and Project Number</u>	<u>Coop. Agency*</u>	<u>Tentative Expend. Progr.</u>	<u>Likely Funding source</u>	<u>Status and comments</u>
		1976	1977	1978-82
5. <u>Building materials</u>				
a. Brick Mg Fees AFG/74/001	MP*			
b. Follow-up on Mr. Selim's mission				- Hochtief plant already reactivated - Govt's reaction to Mr. Selim's recommendation awaited - AFG/75/039 Reactivation of Govt Brick Making Factory needs re-formulation because part of the project already performed locally
10. <u>Wood Products</u>				
a. Developing Secondary Wood Processing Ind.	TED		32	- Draft prodoc submitted 6/76
11. <u>Vegetable Oil</u>				
a. Completion of factory at Masar-i-Sharif	MMII			- Original contractor now bankrupt - Require erection supervision and start-up - Possibility of Govt contract w/Pakistani firm for completion - Draft project document submitted 6/76
12. <u>Food Processing</u>				
a. Food Testing and Control Laboratory	MMI		123	- Draft prodoc. submitted 6/76
b. Pilot Community Food Processing Centre	TED		500	
13. <u>Glass</u>				
a. Cox mission AFG/74/027	MMI			- "Cox mission" - Proposals by Mr. Cox Apparently there is a chance of direct Chinese assistance
b. Devel. of Glass Ind.			394	- Mission in May introduced a number of attractive ideas - Govt wants return mission - Opportunity to adapt existing extruder for production of water pipe (Joklik proposal) - Joklik may be asked to concentrate on small scale batch petro-chemical production
14. <u>Miscellaneous</u>				
a. Joklik mission	MMI			
b. Plastic pipe	MMI			
c. Follow-up mission	MMI			

IV. A TENTATIVE PROGRAMME FOR 1977-1982

The previous section reviewed active requests and suggestions for future technical assistance. Using the review as background in light of Government priorities established for the Seven Year Plan, and considering financial availability and constraints, the mission has tentatively outlined a selective programme of technical assistance for the industrial sector during 1977-82. The result is summarized in Table 2.

The programme represents a possible framework for planning the allocation of technical assistance resources. There are four main groups of activities:

- I Establishment of New Industries
- II Assistance to Existing Industries
- III Industrial Training
- IV Industrial Planning and Information

The first three groups correspond to the three top-priority objectives which were forcibly expressed to the mission by senior Government officials. The fourth group comprises basic services required to make the other three effective.

Rough estimates have been given for resources required to carry out the activities indicated. The figures suggest that a basic programme of somewhat more than a million dollars a year would be compatible with the needs of the Seven Year Plan.

Of course the Government will consider its priorities among sectors and within the industrial sector, and may add, delete and change items accordingly. Secondly, the resources needed are more than may be available from UNDP, so final programming must depend upon availability of adequate resources. Finally, although UNIDO would be pleased to execute all of the above activities for Afghanistan, it may be that there will be opportunities for some to be carried out directly by the Government, or by others.

The mission cannot accurately estimate how much money will be available through UNDP for technical assistance to the industrial sector. The overall UNDP programme during the planning period will

./...

average about \$7 million per year, after deducting current "borrowings". Although comparisons with other countries may not be fully valid, the industry programmes in many countries familiar to the mission fall in a range of about 12 - 18% of the UNDP Country Programmes. Purely as an indicator, this range would yield between 850-1250 thousand dollars per year in Afghanistan. Since Afghanistan is devoting a sizeable fraction of its investment and trained manpower resources to the industrial sector, the mission considers it fully justified to recommend stepping up the level of technical assistance to the sector, correspondingly.

Table 3 can best be called a baseline Programme, i.e. a point of departure for future discussions and negotiations. In line with the evident need to consider additional sources of finance, the mission has designated five of the suggested assistance activities as candidates for the use of funds-in-trust to supplement (not necessarily to replace) UNDP and other UN resources. If the Government agrees to such a "multi-bi" approach, and so requests, UNIDO will approach its contacts among other funding agencies to establish their interest in supporting the activities.

In outlining a programme calling for six million dollars in technical assistance during the period of the Seven Year Plan, the mission has responded to the Government's expression of urgent needs and to its own assessment of realistic levels of assistance inputs. Although the programmed level of assistance is considerably higher than that in effect during 1976, the mission recommends that the Government urgently consider adoption of such an accelerated programme in support of its challenging industrial development objectives. UNIDO will do all within its capabilities to assist the Government, on request, to implement whatever programme is ultimately adopted and to work out implementation details including both technical and financial aspects.

At the mission's final review meeting with the Resident Representative and Government officials in the Ministry of Planning, an earlier draft version of this baseline programme was discussed, together with certain interim and preparatory actions. Following the meeting, the Resident Representative wrote a confirming letter to the Ministry of Planning; a copy of the letter is included as Annex C.

TABLE 2 EFFORTIVE BUDGET PROGRAMS FOR TECHNICAL ASSISTANCE TO INDUSTRIAL SECTOR (1977/82)

Government Priority Areas

(Amounts are \$ x 1000)

	1977	1978	1979	1980-82
I. <u>Establishment of new industries</u>				
a. Industrial Services Project (ongoing)	200	200	150	
b. Industrial Consultancy Company *	50	100	100	50***
c. Industrial Promotion (Private)	60			
d. <u>Emerging Industries</u>)**				
Chemical Industries, Agro-Industries	125	125	125	375***
Wood Industries, Fibre Industries, etc.)				
e. Special Consultancy Fund	100	100	100	300***
II. <u>Assistance to Existing Industries</u>				
a. Management Assistance for the Textile Industry	250	250	200	100***
b. Industrial Accountancy		25	120	120
c. Provision for Assistance to Strengthen Performance in Other Branches		100	150	400
III. <u>Industrial Training</u>				
a. Training Adviser (incl. under Ind. Services beginning in 1976)	50			
b. Provision for follow-up project	50	250	250	750***
IV. <u>Industrial Planning and Information</u>				
a. Initial Missions (to begin in 1976 if possible)	75			
b. Follow-up Project(s)	25	125	100	300
	<u>985</u>	<u>1275</u>	<u>1295</u>	<u>2595</u>

* Eventually to serve existing industries as well

** Each of these has the potential to develop into a large-scale project, subject to financial resources

*** Suggested candidates for obtaining funds in trust to supplement UNDP resources.

V ANNEXES

ANNEX A : BRIEF ANALYSIS OF THE COTTON TEXTILE INDUSTRY

The Cotton Textile Industry (with its related activities) is the backbone of Afghan industry. The new Seven Year Plan shows the Government's determination to continue the sector's rapid development. And the UNIDO mission's consultation with Government and industry officials confirm that there is a strong determination to improve upon an already strong record of accomplishment.

Cotton is grown in four major areas:

- North-Eastern Region (Kundus)
- Northern Region (Mazar-i-Sharif)
- Western Region (Herat)
- South-Western Region (Helmand Valley)

Much of the processing is geographically decentralized to the growing areas and the Plan calls for a continuation of this pattern of development.

The cotton crop has tended to be uneven, varying between about 50,000 and 100,000 tons per year. There is evidently an intention to approach a doubling of the crop through added acreage and improved practices. The dimensions of the potential processing industry become apparent from the fact that each 100,000 tons of raw cotton will yield roughly 33,000 tons of ginned cotton, 9,000 tons of cotton seed oil, and 56,000 tons of cotton seed cake. The ginned cotton in turn can yield about 230 million meters of cotton textiles, worth between 4 and 5 billion Af's, ex factory.^{/1}

Around half of the cotton crop has been exported in the past, and local cotton textile production has varied in the range of about 50-65 million metres. The local market is said to be much greater than production, and this seems a reasonable conclusion since the local production is only about 3 metres per capita.

^{/1} US\$ 1.00 = about 50 Afghanis.

Table 3 summarizes some available information on the industry. The table indicates the regional character of cotton production and processing, indicating both operating and planned capacity. There seems to be no immediate shortage of ginning capacity even if nominal capacity is somewhat overstated. As for spinning and weaving, the newly operational extension at Bagrami, and those in process at Balkh and Gulbahar ensure a 50% increase in capacity over a very short period. Further capacity being planned for Kandahar and Herat should at least bring the industry close to satisfying local demand and may offer the possibility of more substantial exports, if costs prove to be competitive.

In terms of raw material supply, the total of existing and planned weaving capacity (153 million metres) would absorb about 22,000 tons of ginned cotton, or roughly two-thirds of the crop produced during the very good year of 1973/4. With continued attention to the agricultural side, the planned industrial expansion seems to be soundly based, assuming the local market projections prove to be sound. Inclusion of a greater proportion of two-fold yarns and higher quality weaving and patterned styles would increase the weaving capacity substantially by producing slightly heavier cloths.

With the industry already so large, and expanding towards an annual turnover of over 3 billion Afs (in cotton textiles alone) during the next seven years, the Government is anxious to ensure that all goes well. There is interest in potential UNIDO assistance in various aspects of the subject, in the Ministry of Mines and Industries, in the Ministry of Planning and in the Ministry of Finance.

The present structure of the industry is partly indicated by the ownership symbol following the name of each factory in Table 3.

The Afghan Textile Corporation is a private firm which controls over half of the existing cloth production. But the Government controls the ginning industry (it has a 54% interest in the Spinsar plant) and its planned weaving capacity additions will eventually give it a paramount role in textiles production and marketing. Yet there is presently no formal coordination among the Government plants. Each president

PARTIAL SUMMARY OF INSTALLED AND PLANNED CAPACITY IN COTTON TEXTILE INDUSTRY^{1/} (by region)

Region	Spinning (thousands of tons of ginned cotton)	Nominal Installed Capacity	Output in 1973/4	Weaving Capacity (millions of metres of woven cloth) ^{4/}	Planned and under construction	R.O.R.A.F.R.	
Northwest	Spinners, Mambas (M)	35	18.5	Fal-i-Shamir (G)	27	-	Output this year expected to be about 21 m. metres; most of the loss caused by absenteeism
Northern	Khanor Cotton Mill (G) Amin Ltd., Subbi Khosh Karan (P)	3 } 17.5 }	6.5	Balkh Textile Mill (G)	11	12	The extension is nearing completion (machinery from USSR on site)
Western	Karot Cotton Co. (G)	3	3	Karot Textile Mill (G)	-	12	Included in Seven Year Plan
Southwestern	Balmand Cotton Mill (G)	6.5	3-5	Kandahar Textile Mill (G)	-	40	
Central				Chalabhar (P)	15	5	
				Dagruzi, Kabul (G)	30	-	
				Small Private Mills, Kabul (P)	N.o.s.	N.o.s.	
				Jabal-Seraj (P)	N.o.s. ("small")	N.o.s.	
		65	21.5		84	69	

^{1/} Letter in parentheses refers to ownership: G - Government; P - Private; M - Mixed

^{2/} Each ton of ginned cotton requires 3 tons of raw cotton

^{3/} Sources: Various reports of Industrial Services project; plant visits by mission, and Plan summary from Kabul Times, 1 Apr. 76

^{4/} Presumably corresponds to 85 or 90% of local production in each region (1973/4 was a very good crop year)

^{5/} Each million metres of cloth requires about 150 tons of ginned cotton.

operates under the direction of his own Board and/or chairman but there is no central management body concentrating on the problems and opportunities in a systematic way.

There have been recommendations by bilateral and UN advisers that a textile holding company be created. The mission understands that a German adviser is currently preparing an updated plan for such an institution, and the Ministry of Mines and Industries expects to ask UNIDO to help in evaluating the resulting proposal.

The mission discussed the need for specialized management teams with the Ministry of Mines and Industries and the Ministry of Planning. The suggestion was that two specialized teams should be added to the existing resources: one completely dedicated to installing standardized systems of financial and cost accounting, and the other a mobile task force for operational trouble shooting (production, marketing, maintenance, personnel problems etc.). These teams were originally suggested to work without limitation as to segment of industry, but the Ministry of Planning encouraged the mission to consider using the cotton textile industry as a high-priority pilot project along these lines. Accordingly, the mission has modified its suggestions to take account of the textile industry's special importance. A work statement for preparatory activities is being transmitted separately.

In addition to the management upgrading summarized above, there may be scope for considerable technical upgrading of the industry's products as greater utilisation of raw cotton produced in the country is achieved. There is thought to be additional scope for combing, ply-twisting, mercerising and improved finishing and printing to increase Afghanistan's competitive strength in world markets. There will also be opportunities to increase the return on investment by introducing large-scale knitted underwear fabric for the cut and sew making-up sectors.

Further possibilities for the use of cotton linters as raw material inputs may include eventual production of nitrocellulose, explosives, lacquers, and rag-content bond papers as a substitute for expensive imports.

ANNEX B : SUMMARY OF MISSION'S PLANT VISITS

Bagrami Textile Factory

Bagrami Textile Factory, Kabul, is a publicly-owned mill. Its capacity is 30 million metres annually, of which half has been in operation for only three months. The new capacity has already achieved 60% efficiency.

Total employment is 3,600 of whom 2,900 are production workers, on three shifts. Most have received education through the 6th or 9th grade. The normal wage is 1,300 Af\$ per month and there is also a 250 Af\$ food subsidy. Medical services are free.

All of the plant equipment is Chinese. There are presently a few Chinese experts in the plant, assisting with the initial operation of the new capacity. (The original plant has been operating for 5 years). Dye-stuffs are imported from China, Switzerland and Germany (BASF). Maise starch for sizing comes from Pakistan and talc is also imported. There are plentiful talc deposits in Afghanistan but the fineness required (300-mesh) would involve a specialized processing unit.

Printing is done by roller. The plant has its own design department, and the rollers are prepared by a pantograph process. Designs are selected for production after consultation with some of the textile traders. There is no problem of slow-moving or unsaleable designs because demand far exceeds supply. Ex-factory prices average 17 Af\$ per metre although the range is from 12 to over 20. A small percentage of production is textured weave and some involves the use of hand-dyed yarns.

Spares are obtained from China. About 15,000 parts are stocked and the spares inventory is valued at 20 million Af\$. It takes about 6 months to obtain spares. Order quantities are intended to last for one year. When half the supply of any item has been used, it is re-ordered. A system of preventive maintenance is employed. Each day a few machines are shut down for routine servicing.

Last year 600,000 metres of textiles were exported to the United States and there is interest in at least another million metres. But the Government is restricting exports because of the strong local demand.

Balkh Textile Factory

The province of Balkh (some 400 km. north of Kabul) produces about 10,000 tons of cotton annually, of which about 1,300 tons per year is processed by the Balkh Textile Factory. The factory has its own spinning department and has 210 Picanol (Belgian) shuttleless looms with weaving capacity of about 10.9 million metres. Present production is about 80% of capacity because a number of the looms are in the process of being restored to full working order. The Belgian looms produce cloth of two-metre width which is then slit before final processing.

The original plant investment was about 620 million Afs and a 300 million Afs expansion project is nearing completion. The extension comprises 400 Russian looms, which have arrived but are not yet installed, plus spinning capacity. It will add 12 million metres in capacity. Some additional finishing capacity will be required, but is not included in the present expansion project.

The existing finishing department has eight-colour roller printing with capacity of sixty metres per minute. There are presently two French experts assisting in the finishing department.

Cotton is purchased for 44 Afs per kg. Each kg of cotton produces seven metres of fabric. The cost price of finished fabric averages 14 Afs per metre and the selling price ex-factory averages 18 Afs. There is a large local market and there will be no difficulty in disposing of the additional production. Total employment is now 800 persons.

This factory has a history of difficulty in maintaining the Belgian looms. Two years ago more than half were out of production for lack of spare parts. Now all but about 30 are back in production. A supply of spares has been obtained and the factory will soon have a Belgian expert to assist in repairing the looms. The company's policy is to import all spares, except in case of emergency.

Ful-i-Khuzri Textile Factory

The Ful-i-Khuzri Textile Factory is about 200 km. north of Kabul. It is one of 3 plants of the (private) Afghan Textile Corporation. Capacity

is said to be 90,000 metres per day or about 27 million per year. However, expected production for the current year is about 21 million metres.

The spinning department comprises 30,000 Platt Bros spindles, of which half are "old" and half "new". A small amount of yarn is supplied to local hand weaving enterprises; the rest is woven on 1018 looms:

550 mechanical, supplied by Platt Bros. (U.K.), 1939,
make unknown
304 Automatic, German-made
164 Automatic, Russian-made

The factory produces only gray cloth which is sent to Gulbahar for bleaching and finishing. There is of course no marketing department, since Gulbahar is a sister plant, also belonging to ATC.

Pul-i-Khumri employs 2,800 people.

There is a big problem of absenteeism and this is the main reason for failure to obtain full production. The problem is largely seasonal, according to the agricultural cycles. For example in the cherry picking season more than half of the looms may be stopped for a time. Many of the workers come to Pul-i-Khumri from cooler areas; they stay away for a number of days to travel back and forth and participate in the harvest.

Pul-i-Khumri has a substantial foundry and mechanical workshop which was started in 1953 with German assistance. (The foundry is the second largest in Afghanistan, after Jangalak). This capacity is especially useful because it is difficult to obtain spares for the old (1939) Platt looms. Although they can be obtained from India, price and quality are not considered good.

Between 30 and 50% of spare parts are produced here. There are mostly machined castings of iron and non-ferrous metals; there is no steel casting capability. A few parts are made for other factories, such as the sugar factory. Present production is between 600-800 kg. per week. There is a carpentry shop which produces molding patterns. The foundry produces molds completely by hand. Melting is done in 3 crucibles of 60 kg. capacity heated with coke. Pouring is done two or three times per week.

One furnace came from England; the others are home-made. Firebricks come from England and coke from USSR. It was said that more foundry capacity is badly needed.

Ordering of spares is done by the technical master of each department. The regular procedure is to order locally-made parts once a month in quantities approximating the usage for one or two months. Imported parts are normally ordered annually. Emergency spares can be produced in some cases within 24 hours.

Balkh Vegetable Oil Factory

The Government-owned Balkh Ginning and Vegetable Oil Factories headquartered in Masar-i-Sharif operates two ginneries and a vegetable oil extraction and refining plant, including hydrogenization. A second oil plant has been partly erected and machinery is awaiting installation.

There are about 35,000 tons of oil seeds (including 22,000 cotton seed plus sesame and linseed) produced in the Balkh area yearly. Of this about 9,000 tons are processed in the existing plant. There are also more than a dozen small units processing another 13,000 tons. But their operations include only expression plus crude treatment with caustic, and the product is thus considered unsafe for household use.

The new, partly completed plant has a design capacity of 10 tons of hydrogenated oil per day, from 75 tons of seed. This means it requires about 19,000 tons of oil seeds each year as input. The project was begun some years ago as a private enterprise. Machinery was purchased for 4.15 million francs from a French company, Ets. A. Olier, Clermont-Ferrand, Puy de Dôme, B.P. 61, France. Parts of the machinery were subcontracted from Machinexport, Sofia, Bulgaria.

When the machinery arrived about 5 years ago, the buildings were not ready, and a dispute arose between the local and overseas firm. Since then the French firm has gone bankrupt, and the Afghan company's assets have been taken over by the Government.

The expansive plant site contains four large completed buildings for oil extraction, oil cake store, refinery, workshop, and boiler room. An oil seed store and an administration building are only started. The machinery is mostly still in original crates, but it appears that all mounting pads and other concrete works have been completed so that erection could be completed expeditiously if skilled supervision were available.

Ghori Cement Factory

The Ghori Cement Factory at Pul-i-Khumri has a stated capacity of 400 tons per day or 120,000 tons per year. It began operations in 1962 and reached capacity in 1965. Then output trended down until 1972 when it was only about 91,000 tons, because of low market demand. Now production is up again to capacity level or more. Part of recent years' production has been exported to Iran and USSR (10,000 tons last year to USSR), but exports are presently forbidden because the local market exceeds production.

The plant has two kilns, fired by coal from a mine fourteen kms. from the site. Clay and limestone are excavated nearby and the deposits are said to be adequate for 300 years. Gypsum is also located in plentiful supply near the coal deposit. Quantity and quality of the coal (140 tons per day requirement) however, are somewhat problematical.

Power (4 MW) and process water depend upon a nearby river, but winter flows are inadequate, forcing seasonal shutdowns. Finished cement is stored in 6 silos, each holding 2,000 tons.

The plant maintains a careful quality control programme. One sample block, 7 cm. on a side, is tested for each 8-ton batch of clinker. More than 90% exceed a mark of 500 kg/cm² and nearly all exceed 400. Although mention was also made of tests after 3, 7 and 28 days, there was no indication of which international standards, if any, are used as references.

Manufacturing cost is said to be 56 Afs per 50 kg. bag and the ex-factory selling price, 65 Afs. Profit three years ago was 16 million Afs but accounts are not ready for the past two years. Profit position for the current year is considered to be very satisfactory. All of the sales are made in bagged form; bags are four-ply and are imported from Austria at a cost of 14 Afs each, or 25% of the manufacturing cost. Retail prices are fixed by the Government for each province depending upon the transport distance. The retail price in Kabul (224 km) is 95 Afs.

Apart from problems with the coal, the main problem of this plant has been spare parts. 85% of the machinery is from Czechoslovakia, 10% from West Germany and 5% from Italy. There is a small foundry and machine shop in the plant but larger items are sometimes obtained from Jangalak. The service from Jangalak is adequate.

Employment is 642 persons including 413 skilled workers. There are four Afghan and two Czech engineers. Since about one year ago there is a chief engineer. Although there is no programme of continuous preventive maintenance, main overhaul and annual maintenance activities are carried out during the enforced winter shutdowns.

AFG/72/003

22 June 1976

Dear Mr. Ferough,

UNIDO Technical Assistance for Afghanistan

I should like to convey the thanks of the UNIDO programming mission for the excellent co-operation and the many courtesies extended by the Government during their stay. Furthermore I believe that our joint meeting yesterday with the Team Leader of the mission was extremely useful in outlining a number of concrete technical assistance opportunities and in arriving at a sense of priorities and approaches.

The formal mission report will enlarge upon Mr. Millager's summary of findings, but it will not be available for a month or two. In the meantime I should like to suggest that we proceed with a number of interim and preparatory activities which appear to be consistent with the results of our meeting. The following are submitted for your consideration.

1. Industrial Services

Fielding of the industrial economist and financial analyst subject to your prior approval of specific work plans, and UNDP funding is available, taking into account other industrial development requirements and priority needs in other sectors. This is an interim measure and formal revision of the project document will be considered on receipt of the mission's recommendations. It will also be necessary for the Ministry of Mines and Industry to indicate the steps they will take to enable this project to proceed in an effective and efficient manner as we are anxious to avoid our past difficulties with this project.

2. Industrial Training (High Level Manpower)

Industrial Training Adviser being recruited under the Industrial Services project. We could proceed upon your formal endorsement of one of the candidates submitted. The mission strongly feels that the programmed three months will not be enough for the assigned tasks, but an extension can be considered after arrival of the expert in order to avoid procedural delays. We expect that this activity will lead, i.e., to definition of a longer range, separate project.

Mr. Abdul Asis Ferough
Deputy Minister
Ministry of Planning
Kabul

3. Industrial Consultancy Company

We have informally discussed a project data sheet for a preparatory mission with the Industrial Development Bank. We think this can be financed through the SIS programme and will proceed accordingly if you concur. A revised draft project document for this project is being transmitted to the Industrial Development Bank for finalisation prior to formal transmittal through your Ministry.

4. Industrial Planning

We would hope to proceed with definition of objectives and work plan for a planning adviser to be attached to the Ministry of Mines and Industries. This would supersede earlier pipeline projects which are now inactive. This could lead to definition of a larger activity for the future.

5. Development of the Textile Industry

We discussed the likely utility of establishing a special team to assist in strengthening the overall performance of the present and future textile factories. As an example we considered the possibility of using this industry as the initial client for an industrial accountancy team. We spoke in the context of an eventual textile holding company, but of course many plant level activities could be started now. With your agreement I would invite UNIDO to submit detailed suggestions. (It may be noted that such a project could be a strong element in an eventual major development programme covering the range of industrial fibres).

Of course the above is not an exhaustive list of the points we covered, nor of the active pipeline projects. However, I suggest that we may benefit by taking these limited actions now, as a follow up of our review meeting, and I should appreciate your agreement and/or comments.

Yours sincerely

R.A. Borthwick
Resident Representative

LIST OF OFFICIALS CONTACTED

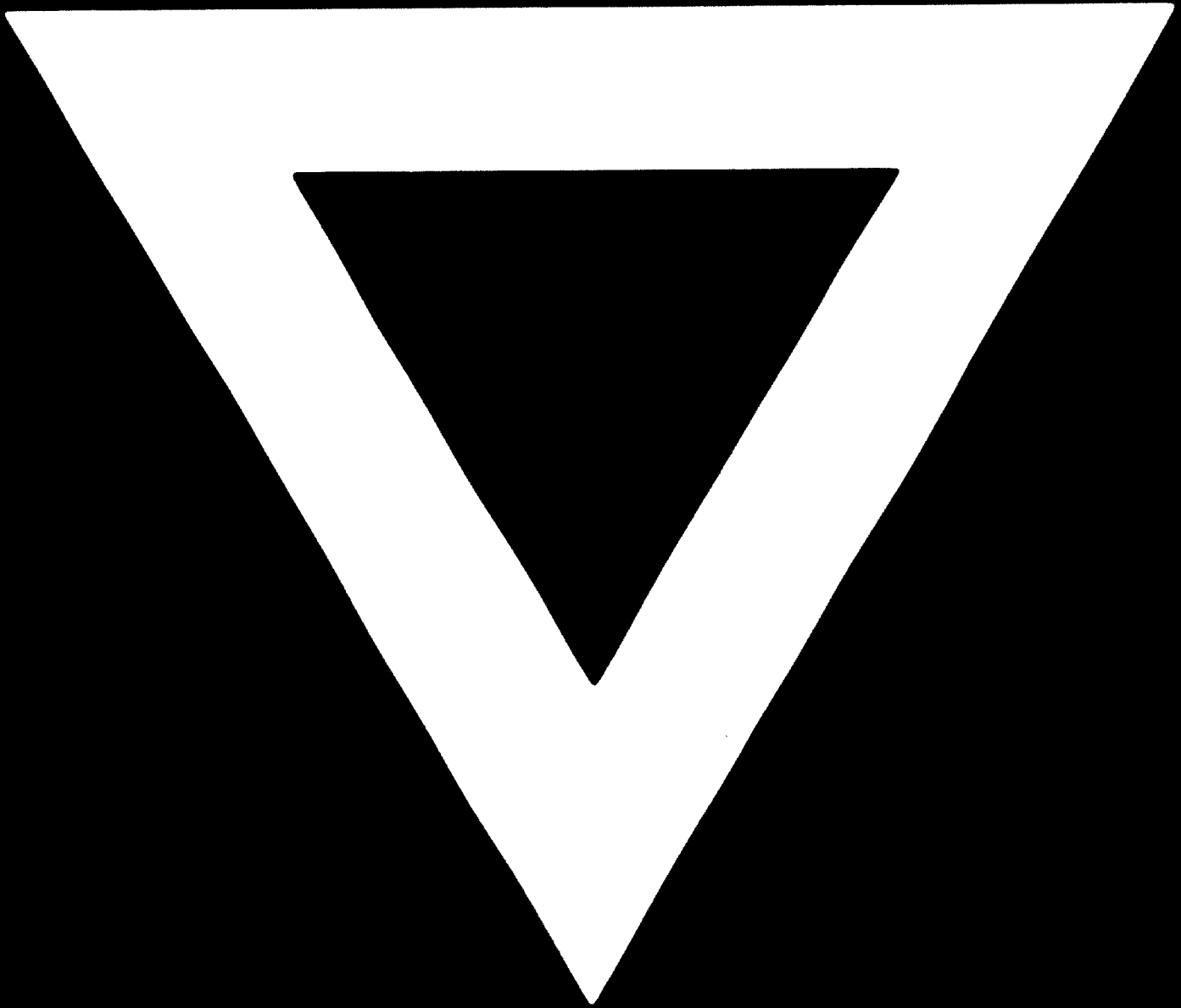
Mr. A.A. Ferough, Deputy Minister, Ministry of Planning
 Mr. M.N. Salehi, President, Department for Economic and Technical Co-operation
 Mr. A.A. Rashizada, Director, U.N. Affairs
 Mr. Zalmy P. Asif (Popal) Director of Industrial Planning, Ministry of Planning

Mr. A.T. Asefi, Minister for Mines and Industries
 Eng.S.Salah, Deputy Minister, Ministry for Mines and Industries
 Mr. Zaman, President, Planning Dept., Ministry of Mines and Industries
 Mr. M.H. Taufiqi, President, Dept. of Ind., Ministry for Mines and Industries
 Mr. Karzai, General Director of Planning, Min. for Mines and Industries
 Mr. F.M. Tarin, General Director, Industrial Services, Min. for Mines and Ind.
 Mr. A.W. Haqiqi, Chief, Research and Studies, Ministry of Finance
 Mr. Modh-Kabir Omar, Acting President, Public Enterprises, Ministry of Finance
 Mr. Yunus Rafiq, President, Private Investment Promotion, Min. of Planning
 Mr. M.F. Rafiq, President of Export Promotion, Ministry of Commerce
 Mr. M. Shafi, Chief of Industrial Statistics Dept., Central Statistics Office
 Dr. Lauridsen (Bilateral Adviser), Ministry of Public Health
 Mr. J.U. Mansukhani, Head of Indian Bilateral Team in Ministry of Planning
 Dr. Noor Ali, President, Industrial Development Bank of Afghanistan
 Mr. Hakimudin, President, Pul-i-Khumri Textile Factory
 Mr. Asad Losara, Director, Order Department, Pul-i-Khumri Textile Factory
 Mr. Said Mohammed Yonus, Technical Master, Spinning Dept., Pul-i-Khumri Textile Factory
 Mr. S.M. Beeksad, President, Balkh Textile Factory
 Mr. A.Q. Samandar, President, Bagrami Textile Factory
 Mr. Wahab, General Director of Accounting, Bagrami Textile Factory
 Eng. Amir Mohammed Ahmadzai, Acting President, Ghorri Cement Factory
 Eng. Saidi, Director of Production, Ghorri Cement Factory
 Dr. Afsali, Director, Afghanistan Geological Service
 Mr. Chakari, President, Balkh Ginning and Vegetable Oil Factories
 Mr. R.A. Borthwick, Resident Representative, UNDP
 Mr. A.N. Holcombe, Deputy Resident Representative, UNDP
 Mr. F.H. Loebus, Assistant Resident Representative, UNDP
 Mr. P. Laming, SIDFA
 Mr. P. Hostettler, Assistant to the SIDFA
 Mr. E.H. Mallik (UNIDO) Industrial Engineer, Industrial Services Project

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Mr. P. Fooks (ILO) Project Manager, Management Project
Mr. A. Landwick (ILO) Industrial Engineer
Mr. D.S. Scott, SAA/FACCR
Mr. J. Swietering, Programme Officer, UNDP
Mr. Alvin W. Norcross (UNPA), Adviser, Public Administration
Mr. H. Pollak (UNOTC) Industrial Engineer
Mr. V. Segesvary (ITC), Project Manager, Export Promotion, Ministry of
Commerce
Mr. C.B. Langerdorf (UNOTC) Project Manager
Mr. C. Bianchi (IBRD) General Manager IDBA
Mr. S. Gupta (IBRD) Financial Adviser, IDBA
Mr. R. Hager (IBRD) Legal Adviser, IDBA
Mr. Tae-Hee Yoon, Resident Representative, IBRD

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