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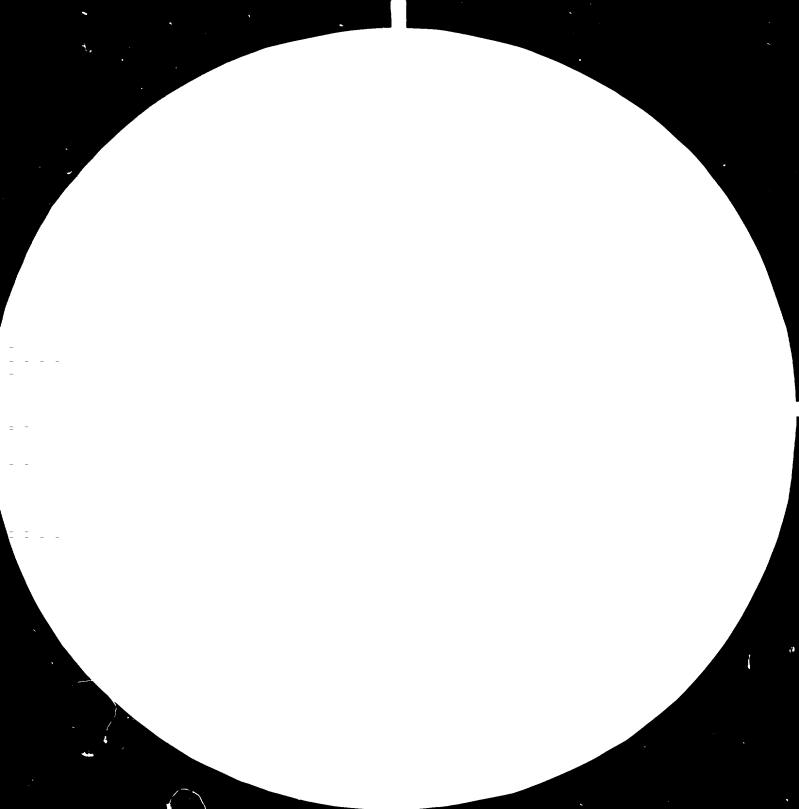
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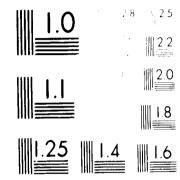
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Libya. Assistance to consolidate and develop The Benghazi cement industry . |

> TF/LIB/75/002 . LIBYAN ARAB JAMAHIRIYA

## Mission report

Prepared for the Government of the Libyan Arab Jamahiriya by the United Nations Industrial Development Organization

Based on the work of A.M. Afify, building materials adviser

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#### ABSTRACT

The project entitled "Assistance to consolidate and develop the Benghazi cement industry" (TF/LIB/75/002) represents a new form of technical assistance with direct support to industry.

During the course of a third mission to the Libyan Arab Jamahiriya, the building materials adviser was asked to report on the project status and to make an evaluation of progress so far achieved.

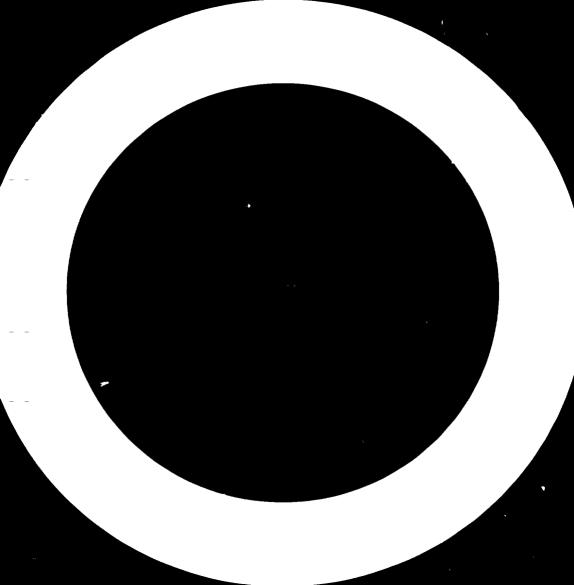
The project functions well in its main objectives of on-the-job training in collaboration with national technical personnel. There is a shortage of counterparts to be trained, and a considerable number of local personnel leave for various reasons.

The UNIDO project co-ordinator takes care of technical and administrative questions and handles other questions such as technical co-operation with counterparts, including participation in solving day-to-day industrial problems and the performance of technological studies.

The total number of experts at the site was 73 on 1 May 1981. A group of 144 candidates was selected at an interview in March 1981 to act in a stand-by capacity to cope with future needs. However, the number of experts in the duty station is limited to a maximum of 80 because of limited accommodation.

The success of this project encouraged the Libyan authorities to request a similar technical assistance team of 120 specialists for the new Fatayeh Cement Project at Derna, which is scheduled to begin operations in 1982. The proposed environment was studied and discussed with the authorities concerned. Prospects are bright and the necessary action has been taken.

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### INTRODUCTION

The project entitlel "Assistance to consolidate and develop the Benghazi cement industry" (TF/L/LIB/75/002) represents a new form of technical assistance with direct support to industry.

The project started with the author as the only expert, but rapid industrial development created an acute need for expanded technical assistance which was extended in May 1978 to 52 experts. It ended with a further request to extend the number to 100 in diversified fields. Altogether, 73 experts had worked on the project by 1 May 1981. A new group of candidates has recently been interviewed and further appointments are anticipated.

The author took part in a series of split missions with a total of 36 man/months, financed under a trust fund arrangement with UNIDO, between February 1976 and October 1979. At the express wish of the Libyan authorities he has returned to the duty station for three one-month missions, from 4 May 1980, from 11 November 1980 and from 19 May 1981, within the framework of post TF/LIB/75/003/12-02/C/32.1.A.

Cement production first begin in Benghazi in 1972 with the start of the first rotary kiln of 200,000 tons per year production capacity. Rapid extensions were achieved, ending with the present annual production capacity of 2 million tons. Development of industrial activities include the construction of a building materials complex comprising two cement works, a lime plant, a paper bag factory, and the manufacture of ceramic bricks and concrete blocks.

In order to monitor the work of the experts and project co-ordinators, the author has the following duties and responsibilities:

(a) Assist the Libyan counterparts in technical and administrative matters related to the UNIDO technical assistance project:

(b) Follow up and control the functioning of specialists assigned to the project and assure their proper performance;

(c) Render advice and extend technical and administrative followup to the technical assistance team;

(d) Facilitate the implementation of UNIDO activities which are being introduced to the fields of technical assistance at the duty station;

(e) Report to UNIDO on substantive matters related to the project, with objective proposals for attaining the utmost assistance.

#### I. RECOMMENDATIONS

In the light of these developments and based on the reports from the UNIDO project co-ordinator and the Polservice team leader, the following recommendations are made:

## A. Housing facilities

Accommodation is a major problem that hampers the project's success. The small supply of flats for project personnel limits the number of specialists in the duty station to a maximum of 80 experts, although more are needed.

Technical assistance is therefore limited to the ability to accommodate the experts. It is strongly recommended to begin a comprehensive construction project for self-owned housing facilities, sufficient to accommodate the required technical assistance team.

### B. Fielding sequence

It would be to everyone's advantage if anticipated repatriations were taken into account so that no vacancy occurs after the departure of the repatriated specialists. Substitutes should be available as soon as specialists leave the duty station. This would eliminate the accumulation of work and would free the specialists on board at the duty station from the additional burden of extra duties until the substitutes arrive.

## C. National counterparts

The number of national counterparts available for training in various posts is insufficient. The most important project is the upgrading of local skills through on-the-job training so that the national technical personnel can handle operational and maintenance problems without foreign assistance. The lack of sufficient local staff and the departure of a considerable proportion of them for various reasons does not allow for the realization of this target. More efforts to employ sufficient local staff would be beneficial.

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### D. Co-ordination meetings

It would be useful if regular periodic meetings could be held between the UNIDO co-ordinator, Polservice and representatives of the Libyan Cement Company. These meetings would be effective in co-ordinating the activities and in achieving speedy solutions to problems that could delay project proceedings.

### E. Status updating

The project co-ordinator has prepared lists which show status particulars of project personnel. It would be useful to all the parties involved if they were given copies of these updated lists every three months in addition to the monthly statement.

## F. <u>Fatayeh project</u> (Known earlier as the Derna cement project)

An approach was made to UNIDD for assistance in the form of a technical group similar to the one at the Benghazi/Hawari cement project. The experience obtained at the existing project would be utilized to achieve the success of the new project. Based on this experience, it is necessary to prepare to field specialists at the beginning of January 1982, so that the whole team will be available at the site in time for acceptance tests. This would enable the technical assistance group to utilize the experience of the commissioning group.

#### II. FINDINGS AND CONCLUSIONS

#### A. Summary of project implementation

The technical assistance project has satisfactorily realized its objectivities. Available national counterparts are being trained on-the-job through mutual co-operation. They maintain the various works and keep it running up to the maximum production standard and in the best mechanical and electrical conditions.

Since the beginning of this report, 10 groups have been fielded totalling 129 specialists. Meanwhile, 56 specialists were repatriated for various reasons, leaving 73 at the site.

### B. Project activities

Since the last survey in November 1980, two groups were fielded: 9th group consisting of seven candidates, starting from 5 December 1980 10th group consisting of five specialists, starting from 5 March 1981

The project co-ordinator takes care of all team particulars which cover technical and administrative requirements. Moreover, he participates in solving day-to-day problems, in addition to specific topics with the help of scientific data such as:

> Production of sulphate resisting cement Cement distribution terminals Specifications of imported cements Technical discussions for defective cement mills Programming of kiln maintenance Studies for solving problems of aggregation/solidification of cement in silos Negotiations for clearing blocked cement silos Study for feasibility of installation of by-pass system for Benghazi cement kilns Follow up of technical affairs for laboratory activities Feasibility studies and preparation of technical specifications for the cement project in the southern part of the country Evaluation of raw materials investigations carried out for Jufra and El Shati areas

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A new team leader has been fielded by the consulting firm Polservice who takes care of the team. Three delegates from Polservice are already at the site on behalf of the project team.

The work of Polservice has been expanded to cover several social aspects including:

Free lunch at the work site A club house with entertainment facilities English language lessons Medical services including regular visits of a Polish physician

## C. Major problems

After discussions with responsible representatives of the parties concerned, the following problems hamper the implementation of the project:

#### Housing facilities

Accommodation is limited to 18 flats: two at Hawari and 16 at Benina. Two of these are for the use of the social club and the project co-ordinator, and 16 are devoted to accommodating 80 specialists, an average of five persons for each flat of three rooms. The accommodation is too overcrowded and does not allow for completion of the group as originally scheduled. The possibility of obtaining more housing facilities is doubtful. The practical solution is to construct self-owned living quarters near the Hawari cement works. Until this is done, the project will have to continue to accept the problem and to limit the maximum number of specialists in the duty station to 80.

#### Air tickets

Team members suffer from a delay in the issue of air tickets for annual leave, family visits and repatriation. A considerable delay is encountered through the normal procedure of sending the authorizations through UNDP, Tripoli. It would be more convenient if the tickets could be issued directly by Libyan Arab Airlines - the sole airline in Benghazi - including authorization for excess baggage as per entitlement. This arrangement would be by special agreement as an exceptional case in order to solve one of the problems causing inconvenience to the group.

#### Unforeseen departures

Several cases of premature repatriations were encountered. Some specialists left the duty station before the end of their contractual periods. This was attributed to the difficult living conditions. Further, the accommodation of two specialists in one room makes it impossible for rest after an exhaustive day's work. Nervous disorders may arise as a result which demand an early departure from the duty station. A solution to this problem can only be possible if the problem of housing were solved.

#### Lenguage difficulties

Most of the team members only speak Polish. A few of them have a little knowledge of English or German. Communications with their national counterparts are therefore impracticable. This problem is being solved by the organization of English language lessons by Polservice.

## D. Project achievements

The project represents a new type of technical assistance to industrial development; it gives direct support to the important building materials industry. The rapid growth of the cement industry from its initial capacity in 1971 of 200,000 tons per year to the present figure of 2 million tons created an acute need for technical assistance to cope with the increased demands for operational and maintenance efforts.

The project has proved capable of meeting the increased requirements satisfactorily and of helping the national technical personnel to take over their duties and responsibilities.

The project's achievements led to the satisfaction of the Libyan authorities, and this in turn led to requests for similar projects in other industrial activities. The most recent is for technical assistance for the Fatayeh cement project, at Derna, which is anticipated as opening at the beginning of 1982.

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#### E. Future work programme

As a result of the number of repatriations totalling 56 cases, the number of specialists on board fell to 73. Furthermore, 13 other specialists are also planing to be repatriated for family and health reasons. The technical application team will have to be increased to 80 specialists, being the maximum capacity of current accommodation facilities. Specialists are available from the stand-by group selected during interviews in March 1981.

Fielding of the needed specialists will have to be accomplished in the near future, starting with the llth group, followed by another group also from the stand-by list.

The successful performance of this technical assistance project resulted in a request for another project at the Fatayeh cement plant on similar terms and conditions. This plant has 1 million tons per year production capacity, and is under construction on the Derna-Tobrug road, about 200 km from Benghazi; it has a turnkey agreement with the Japanese firm. Mitsubishi Heavy Industries (MHI). The circumstances promise a successful outcome, and various aspects have been discussed with the authorities involved. Executive decisions will be taken in the near future in order to obtain the necessary technical assistance.



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