OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.

DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as "developed", "industrialized" and "developing" are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
Vienna International Centre, P.O. Box 300, 1400 Vienna, Austria
Tel: (+43-1) 26026-0 · www.unido.org · unido@unido.org

C6933

Distr.
[redacted]

UNITED NATIONS INDUSTRIAL
DEVELOPMENT ORGANIZATION

UNIDO/ICIS.7
[illegible] February 1976

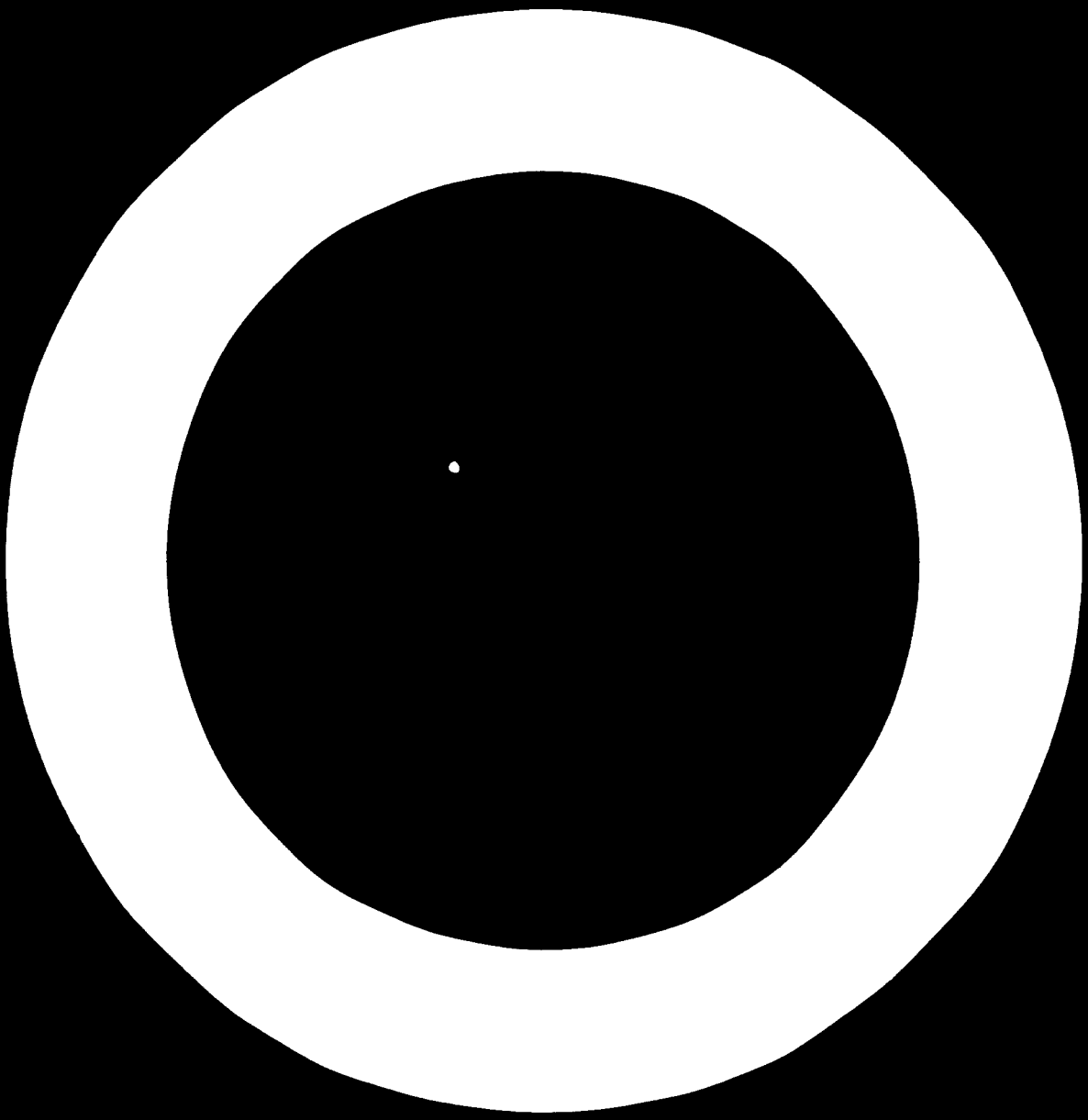
ENGLISH

REGIONAL TRAINING WORKSHOP ON THE APPLICATION OF THE MANUAL FOR EVALUATION OF NATIONAL INDUSTRIAL INVESTMENT PROJECTS IN ARAB COUNTRIES 1/

Cairo, Arab Republic of Egypt
2 - 1[illegible] February 1976

1/ This document has been reproduced without formal editing.

id.76-112[illegible]



Introduction

The Regional Training Workshop on the application of the Manual for Evaluation of National Industrial Investment Projects was held in Cairo from 2 to 13 February 1976. It was sponsored and financed jointly by UNIDO and the Industrial Development Centre for Arab States (IDCAS). The preparations for the workshop were started in March 1975 by the then Industrial Programming Section of the Industrial Policies and Programming Division of UNIDO and by the Economic Division of IDCAS.

The objective of the workshop was to train senior Arab planners and project evaluators in the application of the Manual under the conditions prevailing in Arab countries. This was the first of a series of workshops to be held at regional, subregional and national levels in this area to train nationals from different Arab countries in the application of the Manual.

The training methods used at the workshop were adjusted to suit the diverse theoretical and practical backgrounds of the participants. The working language was English. All participants had a working knowledge of English.

I. Organization of the Workshop

Agenda

The workshop was officially opened at 9.30 on 2 February 1976. Opening statements were made on behalf of IDCAS by Mr. Azzabi, Acting Director General, and on behalf of UNIDO by Mr. Angelov, International Centre for Industrial Studies.

The training programme consisted of sessions held daily, except Friday, from 9.30 to 14.30. All lectures were delivered in English. The work programme is enclosed as Annex 1.

Dr. I. H. Abdel Rahman, Minister of Planning in Egypt and former Executive Director of UNIDO, visited the workshop on 12 February. After hearing some of the lecturing and discussion, he gave a speech emphasizing two main points: first, the importance of pre-investment evaluation of industrial projects and the useful role of the Manual in providing an operational approach for such analysis and second, the utmost importance of better utilization of existing resources and production capacities in

developing countries and the need for carrying out post investment evaluation of the performance of existing industrial establishments.

The closing session was held on 14 February 1971. It was devoted to an evaluation of the workshop by the participants. The closing statement was made by Mr. Angelov on behalf of UNIDO and ECAS.

Participants

The workshop was designed for 20 participants from Egypt, Sudan, Libya, Syria and Iraq. A list of participants is provided in Annex 2.

All participants were university graduates, approximately half of them with a degree in economics and half in engineering. They all had basic knowledge and practical experience in project evaluation. For some of the participants this was the first opportunity to study in a systematic way the procedures and techniques of evaluation of an investment project.

The training Programme

The training programme was based on the Manual for Evaluation of National Industrial Investment Projects in Arab Countries. The main topics taught at the workshop were as follows:

1. Planning at national, sectoral and project levels;
2. Interrelationship between project preparation and project evaluation;
3. Basic information needed for project evaluation;
4. Evaluation of the commercial profitability of an investment project
   - 4.1. Investment profitability analysis: simple rate of return, pay-back period, net present value, internal rate of return;
   - 4.2. Financial analysis: liquidity analysis, capital structure analysis.
5. Evaluation of the national profitability of an investment project:
   - 5.1. Price adjustments
   - 5.2. Value added - basic criterion of national profitability

5.3. Application of the value added criterion for evaluation of new investment projects, modernisation/expansion projects, industrial complexes

5.4. Additional indices: employment effect, distribution effect, net foreign exchange effect, idle capacity effect, international competitiveness

5.5. Supplementary considerations

5.6. National parameters: social rate of discount, adjusted rate of foreign exchange

6. Evaluation of commercial and national profitability under uncertainty:

6.1. Break-even analysis

6.2. Sensitivity analysis

6.3. Probability analysis

In addition to this, two case studies were presented and solved - a case study on an integrated cotton spinning and weaving textile mill and a case study on a urea fertiliser plant. The two case studies demonstrated the application of the methodology of the Manual on actual investment projects taken from the area.

Three main documents were handed over to each participant:

- Manual for Evaluation of National Industrial Investment Projects in Arab Countries;
- Case Study on an Integrated Cotton Spinning and Weaving Mill;
- Case Study on Urea Fertilizer Plant.

The following lecturers contributed to the workshop:

1. Mr. M. Ostrowski (Poland)
2. Mr. J. Bandekovic (Yugoslavia)
3. Miss S. Montasser (Egypt)
4. Mr. M. Arawadi (Egypt)
5. Mr. A. S. Khalil (Egypt)
6. Mr. I. Angelov (UNIDO)

II. Evaluation and Recommendations

As stated above, the training was the main objective of the workshop. It should be stated however that due to the very interesting discussions which developed throughout the two weeks, the meeting appeared in many instances to be more a seminar than a training workshop. Consequently, some questions, comments, observations of the participants were useful enough to be considered for incorporation in the Manual during the final editing. Therefore, the objective of the workshop was achieved and even surpassed. The workshop turned out to be another successful testing of the validity of the Manual to the prevailing conditions in the Arab region.

Following practice established in previous UNIDO/IDCAS workshops, a questionnaire was distributed among the participants to be completed and submitted to the Chairman at the end of the workshop. At this workshop it was even more important to analyze the views of the participants since this was the first time the teaching programme was based entirely on the Manual for Evaluation of National Industrial Projects in Arab Countries. This was the first direct contact between the Manual and the people who will be using it. In order to provide the best possible conditions for the participants to be objective and frank in answering the questions, they were asked not to put their names on the completed questionnaire. The following is a summary of their answers:

1. What do you think about the duration of the workshop?

Eighty per cent of the participants considered it to be short. The rest found it suitable.

2. Which of the Workshop documents did you study?

All participants except three said they had read the Manual. Almost all of them read the textile case study and most the urea case study.

3. **Which benefits did you gain from the Workshop? To what extent could you apply in your work the knowledge acquired at the Workshop?**

With no exceptions all participants answered very positively to this question. Some extracts are provided below:

- "I have learned new practical methods for evaluation of projects from the point of view of commercial and national profitability";
- "I can apply commercial profitability analysis and national profitability analysis in preparation and evaluation of development projects";
- "The knowledge acquired can be applied and will be applied in my work";
- "I have learned much from the workshop. I could use in my office this Manual to a large extent";
- "From the workshop I did gain many benefits as I got acquainted with the Manual which I will try to apply in my future work as a planner at the national and regional levels";
- "I gained important knowledge about project evaluation, because I think this Manual comprises principal methods of evaluation and I think I can apply them in my work";
- "It increased my knowledge about commercial profitability and national profitability in a practical way. I shall apply most of this knowledge during my work";
- "I gained much benefits because at my work I have to study and evaluate projects of Arab and foreign investments. One of the main points of this Manual is national profitability and particularly the value added generated by a project. From this workshop I learned many things about project evaluation".
- etc.

4. Which parts of the Workshop you enjoyed most and why? (commercial profitability, national profitability, uncertainty analysis, case studies)

All participants reported that they enjoyed commercial profitability and the case studies; eight-five per cent enjoyed national profitability analysis; sixty per cent of the participants enjoyed equally all parts of the workshop programme.

5. Which parts of the Workshop you did not enjoy and why? (commercial profitability, national profitability, uncertainty analysis, case studies)

Seven participants did not enjoy the lectures on uncertainty analysis because it needs much computational work. One of them felt that uncertainty analysis is not so important. Three participants did not enjoy the case studies.

6. What do you recommend for future IDCAS/UNIDO joint efforts in the field of project evaluation in the Arab region in general and in your country in particular?

The participants put forward the following main recommendations:

a) to hold more training workshops on the application of the Manual at subregional and particularly at national level. The duration of these workshops should be extended. The views on the duration vary from three weeks to two months;

b) to prepare a Manual for Evaluation of Regional Investment Projects in the Arab Area, including joint venture projects;

c) to prepare a Manual for Post Investment Evaluation of existing establishments since all countries face the problems resulting from underutilisation of available industrial capacities;

d) to develop the methodology of the Manual so that it can be applied to agriculture and the services sector.

7. **What is your opinion about the Arab Manual for Project Evaluation? Have you got any recommendations for improving the Manual?**

The main recommendations were the following:

a) The Manual should be translated and published in Arabic. It should be sent by IDCAS to all Arab countries for application;

b) Uncertainty analysis should be simplified;

c) Application of the Manual should be extended to different industrial sectors by elaborating case studies on crude oil extracting, mining industry, petrochemical complex, agro-industrial complex, modernization/expansion project;

d) Attached to the Manual should be discounting tables with instructions for their use, glossary of basic terms used, other instructions which may be of use to the project evaluator.

The participants' opinion about the Manual was very positive. This can be seen from the following extracts:

- "The Arab Manual for Project Evaluation is covering every aspect of evaluation. That makes it more useful and valuable. It is really what the Arab States need for their planned development."
- "My opinion on this Manual is - very useful".
- "My opinion is that the Manual gives us a simple practical scientific method for project evaluation for both Commercial and National Profitability. It would help us to set priorities for our new industrial projects in order to select the best."
- "It is very good Manual, and I think that the discussion during the workshop will enrich it."
- "A mile starts with the first step. The Manual is a good start."

- "It is a good step on the way of evaluation of industrial projects."
- "I am in the view that the Manual is reasonable, acceptable and suits the requirements of all countries in spite of the marked difference in their industrial structure."
- "I think this Manual is a good manual which takes in consideration most cases that may happen in Arab countries and also it may be used for special cases which we may face in practice."
- "It is really good."
- "It provides a useful tool in the evaluation of projects. Its contents cover the information needed by the evaluators."
- "The Manual is written in a simple approach, specially the commercial part."
- etc.

ANNEX I

Work Programme

2 February 1976

9.30 - 10.00	Opening session
10.00 - 11.00	Introduction
11.00 - 12.00	Commercial profitability (investment profitability analysis)
12.00 - 12.30	Break
12.30 - 14.30	Commercial profitability (investment profitability analysis)

3 February 1976

9.30 - 10.30	Commercial profitability (investment profitability analysis
10.30 - 12.00	Commercial profitability (financial analysis)
12.00 - 12.30	Break
12.30 - 14.30	National versus commercial profitability Price adjustments

4 February 1976

9.30 - 12.00	Value added - basic criterion for national profitability. Application of the VA criterion for evaluation of investment projects
12.00 - 12.30	Break
12.30 - 14.30	Application of the VA criterion for evaluation of modernization/expansion projects

5 February 1976

9.30 - 12.00	Application of the VA criterion for evaluation of industrial complexes
12.00 - 12.30	Break
12.30 - 14.30	Measuring the indirect effects of an investment project

6 February 1976 Off

7 February 1976

9.30 - 12.00	Additional indices
12.00 - 12.30	Break
12.30 - 14.30	Additional indices (cont.)

8 February 1976

9.30 - 11.30	National parameters
11.30 - 12.00	Break
12.00 - 14.30	Project evaluation under uncertainty

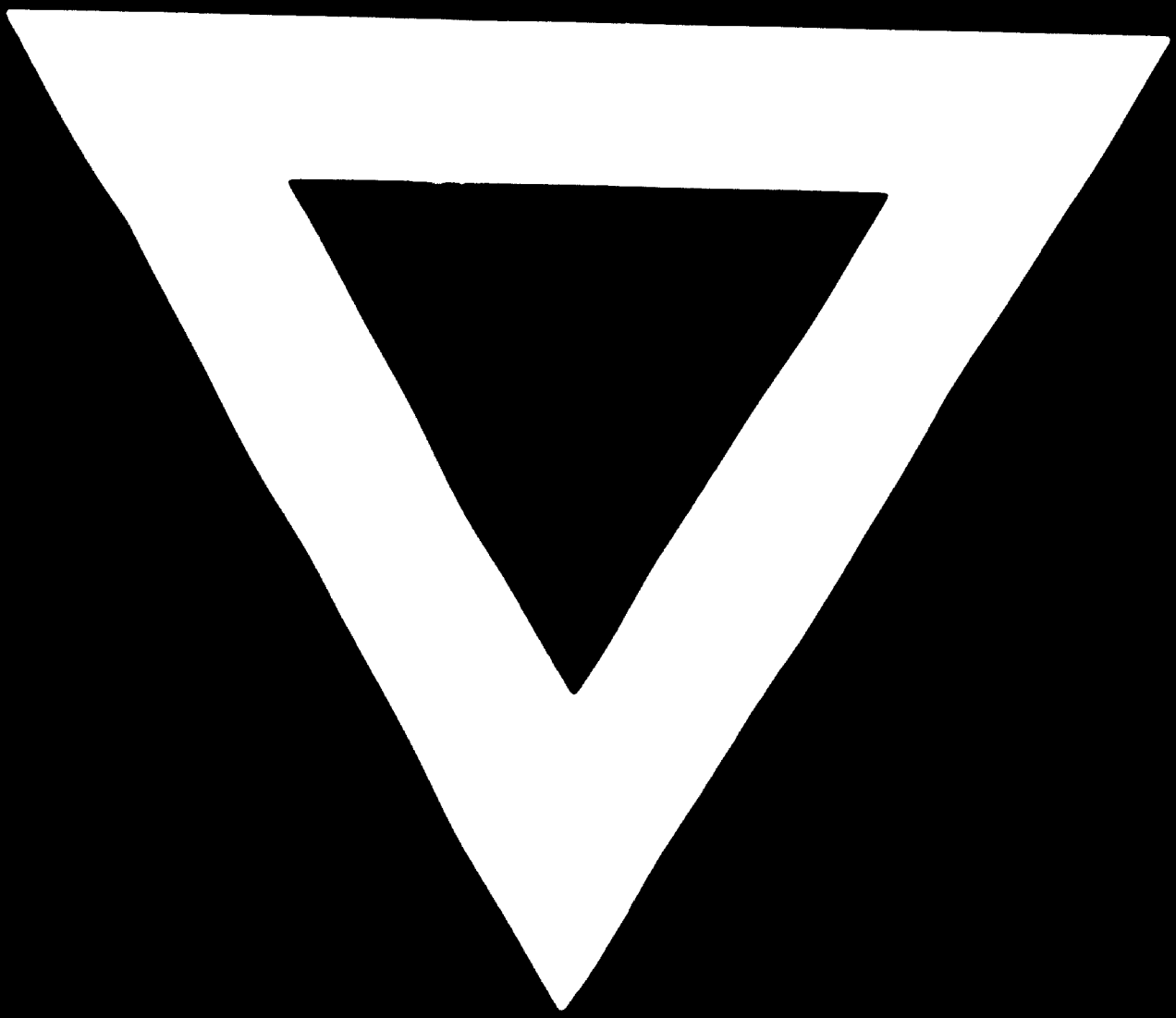
[illegible] February [illegible]	
[illegible] - [illegible]	Presentation of the urea fertilizer case study
[illegible] - [illegible]	Break
[illegible] - [illegible]	Solution of the urea case study
[illegible] February [illegible]	
[illegible] - [illegible]	Solution of the urea case study
[illegible] - [illegible]	Break
[illegible] - 14.[illegible]	Solution of the urea case study
11 February [illegible]	
9.30 - [illegible]	Solution of the urea case study - uncertainty
[illegible] - [illegible]	Break
[illegible] - 14.30	Presentation of the textile case study
12 February 1976	
9.[illegible] - [illegible].00	Solution of the textile case study
12.00 - [illegible].30	Break
12.[illegible] - 14.00	Solution of the textile case study
13 February 1976	Off
14 February 1976	
9.[illegible] - 11.[illegible]	Solution of the textile case study
11.[illegible] - 12.00	Break
12.00 - 14.30	Solution of the textile case study - uncertainty
18.00 - 19.30	Closing session

ANNEX

LIST OF PARTICIPANTS

Name	Nationality	Position/Organization/Address
1. Azmi Mustafa Ali		Chemical Engineer, IDCAS P. O. Box 1297, Cairo
2. Mohamed Ibrahim Saleh	Egypt	Head of Gen. Balances Unit, Ministry of Planning, Nasser City
3. Tolba Hamed Ahmed	Egypt	Income Department, Ministry of Planning, Nasser City
4. Ahmed Hafez El Assiry	Egypt	General Department of Industry Ministry of Planning, Heliopolis
5. Abdel Salik El Rayah	Sudan	Financial Analyst, P. O. Box 1722 Khartoum
6. Kairy Saad Salama	Egypt	Expert in Textile Proj. General Organ. for Industrial. Dokky Cairo
7. Ali Abou Doma	Egypt	General Dir. Econ. Affairs General Organ. for Industrial. 6 Khalil Aga St., Garden City
8. Ahmed Hamed Raiwan	Egypt	Director, Building Material Department, General Organ. for Industrial., 6 Khalil Aga St., Garden City
9. Abdul Mohaimen Al Khatib	Syria	Director of Planning, Ministry of Industry, Rukn El Deen, Damascus 5
10. Amani Talaat Khairy		Economist, IDCAS, P. O. Box 1297 Cairo
11. Mohamed Yousri Hamed		Second Specialist, IDCAS, P. O. Box 1297, Cairo
12. Mohamed El Zigallai	Libya	Economist, Ministry of Industry
13. Magda El Kishky		Economist, IDCAS, P.O. Box 1297 Cairo
14. Mohamed Saeid Hindi	Egypt	Accountant, General Organization for Industrial., Maadi Cairo
15. Ibrahim Fahmy	Egypt	Chief of Small Scale Industry, General Organization for Industrial., 35, Al Dowry St. Agouza
16. Ahmed Khoury El Raffa	Egypt	Expert in Reg. Planning, Ministry of Planning, Nasser City, Cairo

Name	Nationality	Institution/organization/Address
[illegible] Ali [illegible]	Egypt	Ministry of Planning, [illegible], Cairo
[illegible] Kamal El Shimawi	Egypt	Chemical Engineer, Ministry of Planning, Heliopolis
[illegible] Mustafa [illegible] Ibrahim [illegible]	Egypt	[illegible] Dept. Ministry of Planning, Heliopolis
[illegible]	Iraq	Manager, State Gen. for Indus. [illegible] Construction, Baghdad
21. Hussein Hamza Al Delaimi	Iraq	Assistant President, Industrial Bank of Iraq, Baghdad
[illegible] Hamed Mohamed Ali El Hadi	Iraq	National Centre for Consultancy and Management Development, Baghdad
23. Fayez Hamed	Syria	Director of Planning, Union of Syrian Industries, Damascus
[illegible]. Hassan Nasri	Syria	Head of Section, State Planning Commission, Damascus
[illegible] Mohamed [illegible]	Egypt	Chief Engineer, Gen. Indus. Federation, Dokky Cairo
[illegible] Mohamed Hassan Ali	Sudan	Branch Investment Admin. Ministry of Industry, P. O. B. 2180 Khartoum
27. Ahmed Hassan Ali	Sudan	Inspector, Ministry of Industry Khartoum
28. Ola Soleiman El Hakim	Egypt	Economic Researcher, Ministry of Planning, Heliopolis



76.05.04