



**TOGETHER**  
*for a sustainable future*

## OCCASION

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



**TOGETHER**  
*for a sustainable future*

## 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.

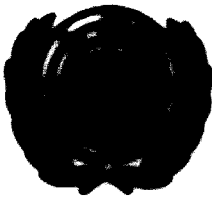
## FAIR USE POLICY

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](mailto:publications@unido.org) for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at [www.unido.org](http://www.unido.org)



06823



Distribution  
LIMITED

12/02.019/9  
12 December 1973

UN/IDP

**United Nations Industrial Development Organization**

**Regional Consultation for the Arab Countries of the  
Middle East and North Africa on Licensing of Technology  
with Reference to the Petrochemical and Fertilizer Industry  
Banghazi, Libyan Arab Republic, 1 - 6 December 1973**

Organized in co-operation with  
**Industrial Development Centre for Arab States (IDCAS)  
General National Organization for Industrialization (GNOI)  
Libyan Arab Republic**

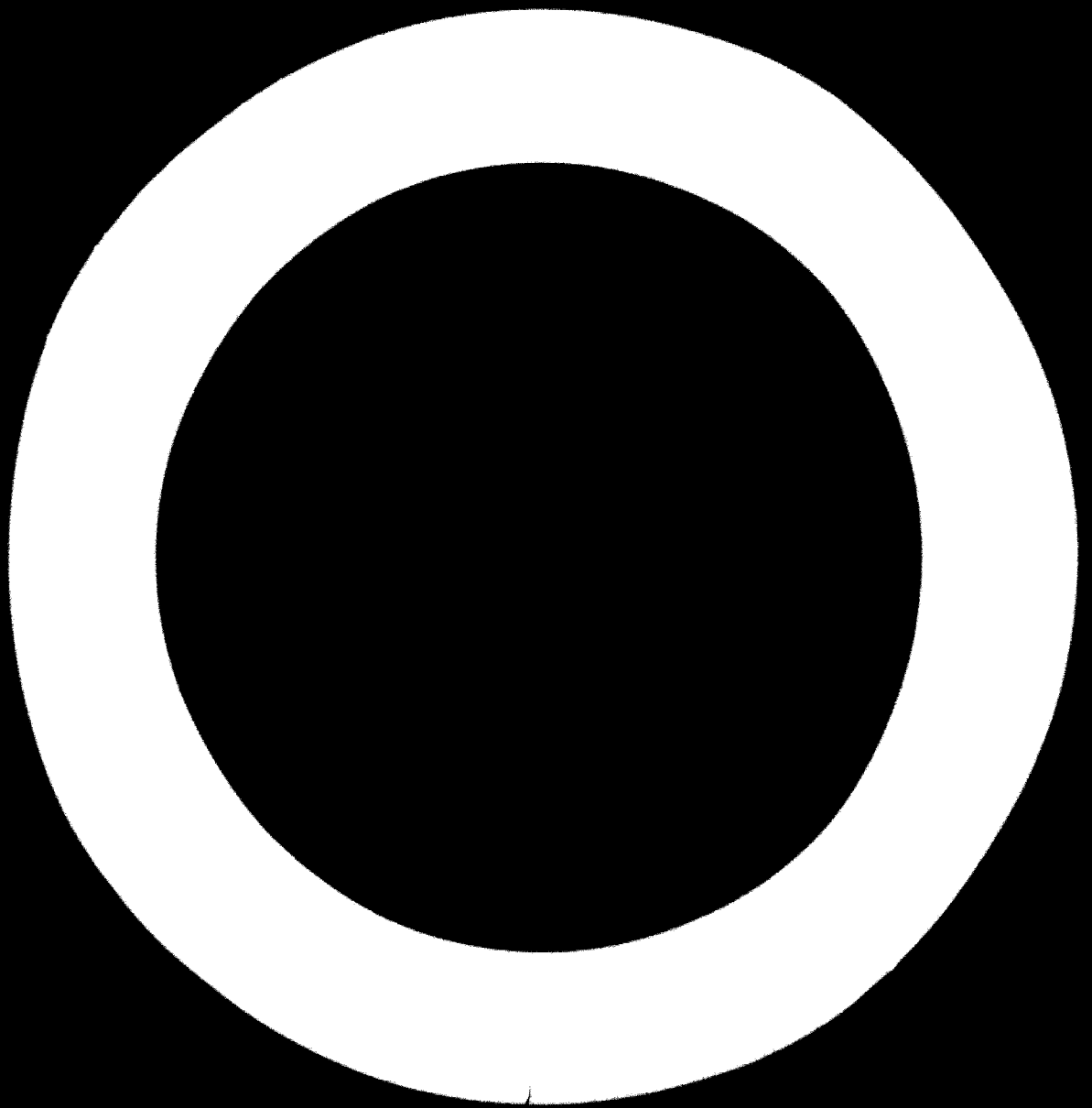
**R E P O R T \***

**C O N T E N T S**

<b>I. INTRODUCTION</b>	<b>1</b>
<b>II. PARTICIPANTS</b>	<b>1</b>
<b>III. OPENING OF THE SESSION</b>	<b>1</b>
<b>IV. COMMUNICATION DOCUMENTS</b>	<b>1</b>
<b>V. SUMMARY OF THE DISCUSSIONS</b>	<b>2</b>
<b>VI. RECOMMENDATIONS</b>	<b>2</b>
<b>ANNEX I. AGENDA</b>	<b>3</b>

\* This document has been reproduced without formal editing.





## I. INTRODUCTION

In view of the increasing importance of the transfer of technology to the Arab States economies particularly at the present stage of their industrial development discussions were carried out between UNIDO, IDCAS and the General National Organization for Industrialization -GNOI- of the Libyan Arab Republic for convening a Consultation in the Libyan Arab Republic on transfer of technology with particular emphasis on the fertilizer and petrochemical industries.

## II. PARTICIPANTS

The Consultation was held in Benghazi, Libyan Arab Republic, from 1 to 6 December 1975.

The Consultation was attended by delegations representing seven Arab States, representatives of six Arab and International organizations in addition to the organizations sponsoring the Consultation, i.e. UNIDO, IDCAS and GNOI. A total of 42 participants from 11 countries and six international organizations attended the Consultation.

## III. OPENING OF THE SESSION

The Consultation was formally inaugurated by Mr. Syed Ahmed El Kortada, Under Secretary for Industry and Mineral Resources, L.A.R., who delivered a statement welcoming the participants and stressing the importance of the subjects to be discussed and wishing the Consultation full success. His statement was followed by a speech by Mr. Sayed Ali Abdel Hak of IDCAS who pointed out the importance of the transfer of technology to the Arab States and the role of IDCAS in this connexion.

The Director of the Consultation, Mr. M. El Malfawy, UNIDO, then stressed in his statement the importance of the fertilizer and petrochemical industries to the Arab world. He also outlined the role of UNIDO in implementing the Lima Declaration and Plan of Action.

The last to deliver a statement was Mr. Sayed Mohamed El Sigalal, Chairman of the Consultation, representing GNOI. Mr. El Sigalal after having welcomed the guest to his country, emphasized the particular attention given by the Organization in the field of transfer of technology.

## IV. CONSULTATION DOCUMENTS

Five discussion papers and three background papers on various aspects of transfer of technology were presented to the Consultation by UNIDO consultants and UNIDO staff. The agenda of the consultation is included as annex I.

#### V. SUMMARY OF THE DISCUSSIONS

At the outset, the general aspects of international licensing were outlined with particular emphasis on restrictive business practices in licensing agreements. The legislative and administrative measures introduced by some developing countries particularly in Latin America, were also reviewed.

The papers presented by UNIDO consultants focused attention on the matters related to the transfer of technology in the field of fertilizer and petrochemical industries. One additional paper dealing with the role of engineering firms in the licensing of petrochemicals and fertilizers was also presented.

As an integral part of this Consultation, a panel discussion on the impact of technology transfer on industrial development took place. In this context, the role of national and regional industrial research and development institutes in the transfer of technology was emphasized. Furthermore, the importance of manpower training and the necessity of creating and strengthening national engineering and consulting agencies was stressed.

Additionally the role of UNIDO in the field of technology transfer as well as the activities of IDCAS in this area were also explained in detail. The Consultation devoted part of its deliberations to a consideration of a draft license agreement for the manufacture of caprolactam with the object of introducing desirable modifications and additions to the draft to render its terms more acceptable to the licensee. This was an exercise in which the participants took a very direct and active part.

#### VI. RECOMMENDATIONS

In the conclusion of the Consultation, the following recommendations were adopted:

1. Co-operation among Arab States themselves and with other developing countries in the field of technology transfer, its adaptation and development is most desirable.

UNIDO should intensify its programs in this area. In this context, co-operation in training, exchange of information including patent documentation, engineering and design activities are of particular importance.

2. To assist developing countries in general and Arab States in particular, in the proper selection and evaluation of foreign technologies in the field of

fertilizers and petrochemicals, UNIDO should

- (a) compile a portfolio of selected available technologies in this area
- (b) assist countries, at their request, in evaluation and negotiation stages of specific licensing proposals.

3. UNIDO should assist in the setting up and/or strengthening of national or regional industrial research and development institutes, design centres and engineering and consulting services.

More appropriate organisational and financial links between such institutions and enterprises engaged in production are essential. Furthermore, efficient co-operation and co-ordination of activities and programmes of these institutions in the Arab States are desirable. In this context, it is proposed that a joint UNIDO/ICAS committee should be established to promote such co-operation. Arab specialised institutes and organisations would participate as required in the activities of this committee.

4. It is desirable to introduce explicit government legislative and administrative guidelines including establishment of regulatory bodies to deal with all matters pertaining to the registration, evaluation and approval of foreign licensing proposals. Such governmental bodies would promote the acquisition of foreign technology under fair, equitable and mutually acceptable conditions.

5. In view of the fact that a high capital investment is needed for the establishment of the fertiliser and petrochemical industries, acquisition of commercially non-proven technologies should be discouraged.

6. In contracting fertiliser and petrochemical industries, the Arab States should insist on closely associating local technical personnel in all critical phases of the planning and implementation of the project. Of particular importance is the participation of local personnel in the stages of project formulation, preparation of Detailed Project Report (DPR); basic and detailed engineering; preparation of technical specifications for the selection and purchase of the equipment as well as in the construction, start up and commissioning of the plant.

7. To maximize the benefits derived from the acquisition of foreign know-how and technology and in particular in the field of fertilizers and petrochemicals, the Arab States with the assistance of UNIDO, ICAS and concerned Arab regional organisations, should:

- (a) attempt to acquire licensed technologies on a collective basis for the production of particular fertiliser or petrochemical products;
- (b) selectively obtain such licensing-manufacturing rights for projects

of special importance for the region. This effort should be coupled with careful negotiations on payments on the basis of so-called paid-up licences.

- (c) identify projects in which common design standards and engineering specifications could be applied for various plants in one, the same or various Arab States.

8. Arab States should pay particular attention to the local manufacture of catalysts employed in their growing fertilizer, refining and petrochemical industries.

IDCAS in co-operation with UNIDO, the Association of Arab Fertilizer Manufacturers and the Council of Arab Economic Unity, should study the feasibility of setting up a joint venture for this purpose.



ANNEX I

AGENDA

Monday, 1 December 1973

8:30 - 9:30

Registration of participants

9:30 - 11:30

Immigration of Consultation

Presentation of Consultation staff

Welcome addresses: Host country officials  
UNEP officials  
IDCAS officials  
UNIDO officials

Election of officers

Adoption of the Agenda

13:00 - 14:00

Aspects of licensing in the petrochemical and  
fertilizer industry

by Mr. H. A. Janiszewski, UNIDO

based on background papers:

ID/WG.206/1 - Essential prerequisites for interna-  
tional licensing by Secretariat of UNIDO

ID/WG.206/2 - Review of legislative and administra-  
tive systems for the regulation of technology trans-  
fer agreements by Secretariat of UNIDO

ID/WG.206/3 - Restrictive business practices in  
licensing agreements by Secretariat of UNIDO

Discussion

Tuesday, 2 December 1973

8:30 - 9:30

Aspects of licensing in the petrochemical and  
fertilizer industry

Discussion (continued)

9:30 - 11:30 ID/WG.219/4  
Transfer of proprietary technology of petrochemical processes  
by Mr. D. F. Othmer  
Discussion

12:00 - 14:00 ID/WG.219/5  
Transfer of technology in the fertiliser industry  
by Mr. J.D.G. Humslay  
Discussion

Wednesday, 3 December 1975

8:30 - 9:30 ID/WG.219/8  
Transfer of technology in the catalyst and petrochemical industry  
by Mr. J.W. Marshall  
Discussion

9:30 - 11:30 ID/WG.219/6  
The cost of technology transfer in the petrochemical and fertiliser industry  
by Mr. B. Hedberg  
Discussion

12:00 - 14:00 ID/WG.219/7  
Factors influencing process selection, plant size and licence fees in the petrochemical and fertiliser industry  
by Mr. B. Hedberg  
Discussion

Thursday, 4 December 1975

8:30 - 9:30 Case study syndicate exercise  
by Mr. N. A. Janiszewski

9:30 - 11:30 Transfer of technology and industrial development  
Role of national institutions  
Co-operation between developing countries  
Role of UNIDO in technology transfer  
Panel discussion

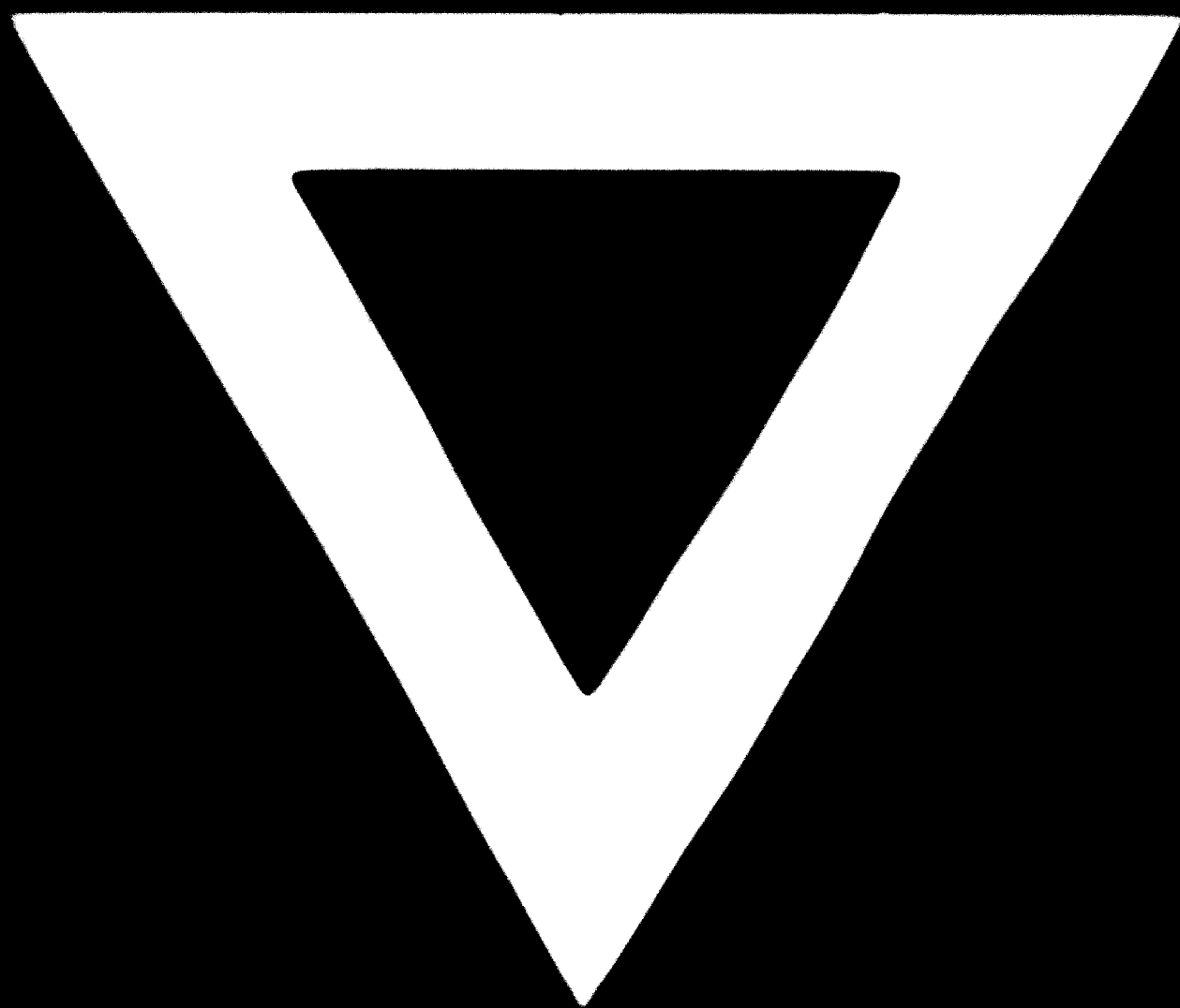
12:00 - 14:00 Panel discussion (continued)

Friday, 5 December 1975

8:30 - 9:30 Discussion of results of case study exercise

9:30 - 11:30 Presentation of the report of the Consultation  
Conclusions and recommendations

10:00 - 10:00 Closing session - adoption of the report



**76.02.03**