



TOGETHER
for a sustainable future

OCCASION

This publication has been made available to the public on the occasion of the 50th 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.

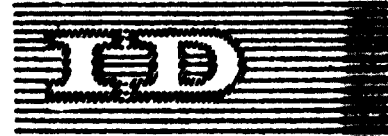
CONTACT

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

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



05162



Distribution
LIMITED

ID/WG.166/9
9 November 1973

Original: ENGLISH

United Nations Industrial Development Organization

Fourth Training Programme in Plastics Technology
Vienna, Austria, 10 September - 9 November 1973

**THE DEVELOPMENT OF THE PLASTICS INDUSTRY
IN IRAQ^{1/}**

by

Ahmed N. AL-SADI

^{1/} The views and opinions expressed in this paper are those of the author and do not necessarily reflect the views of the secretariat of UNIDO.
This document has been reproduced without formal editing.

We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.

Introduction

Consumption of plastics in Iraq is still in an early stage of development. This is due to the following factors:

1. The early stage of economic development in the country.
2. The relatively low population. In industries like plastics no under-developed country can hope to export any products especially at the early stages. The low population coupled with low per capita income makes the market necessarily limited for large scale development.
3. The lack of technical know-how for the development of the more complicated plastics industries.
4. The non-existence of basic plastics industries so far although raw materials are available.
5. The concentration of development on the private sector until recently. The private sector has limited capital investment possibilities and the state (public sector of industry) has entered the field of plastics industries only recently.

Present status of the industry

Plastics industries started in Iraq in the simplest and easiest form. Perhaps the first "industry" to be developed was the manufacturing of low density polyethylene bags followed by gardenhoses and simple toys. This started in the late fifties in an unplanned and rather spontaneous fashion. It could be said that the introduction of plastics industry in Iraq was brought by business men possessing small capitals who had visited some trade fairs in Europe or through private contacts with some equipment manufacturers.

The quality of the products was and still is generally of low standard due to lack of any technical knowledge of the people who introduced these industries. This is perhaps one of the main factors affecting the progress of plastics consumption in Iraq.

The state entered the plastics industry in the late sixties through advancing loans to the private sector by the Industrial Bank (state owned) as well as the setting up of completely state owned industries which require relatively large capital.

The state owned plastics industries operating or under construction are the following:

1. A blow moulding unit for PVC bottles to be used for edible vegetable oils (approximately six million bottles per year);
2. Woven polypropylene sacks unit with a capacity of approximately three million sacks per year;
3. Three thousand tonnes per year plastic pipes factory;

There are other projects under study, the most important being:

1. Expansion of the plastic pipes industry. Great demand is foreseen in plastic pipes especially for land reclamation purposes. One agricultural project (cane-sugar fields) has used perforated plastic pipes successfully for combating the soil salinity;
2. Expansion of the woven sacks project;
3. Injection moulding project for boxes and crates in order to modernize handling of milk and soft drink bottles (metal boxes are presently used for this purpose). In addition plastic boxes and crates can be made to replace wooden boxes generally used now for carrying vegetables and fruits.

Future possibilities

For a number of years a debate was going on amongst technical committees in the ministries of industry and planning in Iraq concerning the possibilities of setting up basic plastics industries. The basic problem was that the minimum economical capacities for basic plastics were far beyond the present day plastics manufacturing industries consumption. Export of basic plastics could not be guaranteed since it was not seen possible for Iraq to compete with the more advanced industrial countries possessing the know-how and generally more technical capabilities to produce basic plastics at lower costs although the raw materials for basic plastics are probably cheaper in Iraq than in any industrial country. Therefore, the debate centred around whether basic plastics industries should be set up with the hope that as a result of abundance of cheap basic plastics, the intermediate and manufacturing industries will develop accordingly or whether plastics fabrication industries should be developed first so that the consumption level will reach a point where the minimum size requirements for basic plastics industries could be met.

At last a decision was taken to go ahead with setting up a basic plastics industry as well as encourage all possible plastics fabrication industries. Tender documents are now under preparation for a complex to produce polyethylene and PVC from natural gas in the Southern part of Iraq.

Problems

1. The writer is of the opinion that the basic problem in Iraq concerning plastics is still the lack of knowledge about all their possibilities. For example the agricultural sector seems to know very little about what could be achieved with plastics films or pipes or boxes. Only recently, when a cane-sugar plantation had a grave salinity problem, plastics were looked into for a solution. The solution was found as already mentioned by using perforated plastic pipes. This may open the way for use of these pipes in other land reclamation enterprises.
2. Another problem which is also connected with lack of know-how is the following: since only PVC and PE are going to be produced in the envisaged basic plastics plant, to what extent can these two materials replace other thermoplastic resins traditionally used for certain items.
3. Since most of the plastics fabrication industries presently established in Iraq, are low capital private enterprises, their technical capabilities for improvement or initiative let alone innovation is very limited. Therefore, some sort of organization is required to control and extend help to these industries.
4. Government investment is required for setting up more medium and large size plastics fabrication industries.
5. In concluding it may be said that it is necessary for Iraq to set up an Institute or Technical Centre for training technicians for the plastics industry, educate the public about the possibilities of plastics use as well as carry out general applied research and development in plastics use in connection with the country's needs and environment. This is where perhaps UNIDO could extend a helping hand.





30.8.74