



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.

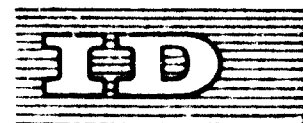
CONTACT

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

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



06447



Distr.
LIMITED

ID/WG.153/21
7 June 1973

ORIGINAL: ENGLISH

United Nations Industrial Development Organization

Seminars on Plastics Application
in Developing Countries

London, England, 13 - 27 June 1973

THE DEVELOPMENT OF THE PLASTICS
INDUSTRY IN INDONESIA ^{1/}

by

Nico Kansil
Head

Planning Division for Fertilizer
and
Petrochemical Industries
Directorate General of Chemical Industries
Jakarta, Indonesia

^{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

C O N T E N T S

| | <u>Page</u> |
|--|-------------|
| I. INTRODUCTION | 3 |
| II. HISTORICAL SURVEY | 3 |
| Manufacture of plastic ware | 3 |
| Table 1: Number and location of plastic companies | 4 |
| Manufacture of plastic materials | 5 |
| III. PROSPECT FOR FUTURE DEVELOPMENT | 6 |
| Table 2: Import of plastic materials and production of plastic goods | 6 |
| IV. SUMMARY | 7 |
| INVESTMENT PROMOTION PROGRAMME | 8 |

I. INTRODUCTION

The purpose of this paper is to provide some information regarding the development of the plastic industry in Indonesia.

A brief reference is made on the projected establishment of a petrochemical complex in Balikpapan in discussing the prospect for future development of the plastic industry.

II. HISTORICAL SURVEY

a) Manufacture of plastic ware

The manufacture of plastic ware in Indonesia was started in the mid 1950's based on imported plastic materials.

Like many other consumer goods industries the manufacturing facilities are concentrated mainly in Java for the following apparent reasons:

- With approximately 65% of the population living on the island of Java, it constitutes the major market for consumer products in Indonesia;
- The island of Java has the most developed infrastructural facilities in Indonesia;
- Easier recruitment of labour and personnel with specialized skills.

In 1970 - 1972 the Directorate General of Light Industries and Handicraft conducted surveys for the purpose of making an inventory of the plastic companies in Indonesia. The results of the surveys which were performed in Java and North Sumatera are summarized in the following table:

Table 1

Number and Location of plastic companies

| No. | Location | Number of companies |
|-----|--------------------------------|---------------------|
| 1. | Jakarta | 106 |
| 2. | East Java | 73 |
| 3. | Central Java and Jogyakarta | 42 |
| 4. | East Java | 112 |
| 5. | North Sumatera | 72 |

It was found during the survey that some of the plants were not operating because of some operational difficulties. At the time of the survey some plants were still in the stage of construction.

Table 1 clearly reflects the concentration of the manufacturing facilities in Java particularly in Jakarta and East Java. Jakarta and East Java are not only important from the point of view of number of manufacturing companies but also because of the wider range of plastic articles manufactured as well as the volume of output and product quality.

The plastics goods produced in Java are exported to other regions in Indonesia. North Sumatera exports some of the plastic products manufactured in the region to Aceh, Jambi, Palembang and Padang.

The most important plastic materials used in the manufacture of plastic goods are:

- polyethylene especially low density polyethylene
- polyvinylchloride
- polystyrene
- polypropylene

In the absence of domestic production all the plastic materials are until now imported particularly from Japan.

The major plastic articles manufactured in Indonesia are:

- bags
- bottles and containers
- sandals/shoes
- furniture/household goods
- cords, ropes, nets

Other plastic products include pipes, corrugated sheets, electrical components, cables, buttons, toothbrushes, foam, toys, etc.

Some of the plastic goods manufacturing companies have been established recently within the framework of the Foreign Investment Law (Law No.1, year 1967) and the Domestic Investment Law (Law No.6, year 1968). Most of the companies however, have been in operation before the introduction of the investment laws.

In general it can be concluded the manufacturing plants are operating below their potential capacities because of the difficulties in marketing their products.

b) Manufacture of plastic materials

The increase in consumption of plastic goods in Indonesia has promoted the establishment of plants for the manufacture of the required plastic materials.

Within the framework of the Domestic Investment Law three PVC compound plants have been established in Jakarta, using imported PVC resin and other inputs.

A PVC plant based on imported VCM is currently in the final stages of construction at Tanjung Priok. The plant has a design capacity of 15,000 tons/year PVC and is established by a joint venture company within the framework of the Foreign Investment Law. The plant is expected to start operation in the last quarter of 1973.

In the meantime the state oil company Pertamina is currently in the final stage of construction of a polypropylene plant at Plaju. The plant is based on refinery gas as feedstock and has a design capacity of 25,000 tons/year. The polypropylene plant which consists of two lines is expected to start operation in 1973.

III. PROSPECT FOR FUTURE DEVELOPMENT

The emphasis in the First Five Year National Development Plan 1969/70 - 1973/74, currently in its final year, is on the development of the agricultural sector.

In the industrial sector, industries supporting agricultural development such as the fertilizer industry have been given priority for implementation.

In the Second Five Year National Development Plan 1974/75 - 1978/79 although the emphasis remains on agricultural development, the industrial sector will assume an increasingly important role in the economic development of Indonesia.

The growing demand for consumer goods derived from petrochemical such as plastics on the one hand and the availability of indigenous feedstocks for the petrochemical industry and potential market on the other hand, have prompted the Government of Indonesia to study the possibility of establishing a petrochemical complex in Indonesia.

The growing demand for plastic materials is reflected by the increase in the volume of import as presented in Table 2.

Table 2
Import of plastic materials and production of plastic goods

| Year | Volume of import [*] (ton) | Estimated production ^{**} (ton) |
|------|--|---|
| 1963 | 9,954 | 7,963 |
| 1964 | 4,378 | 4,298.7 |
| 1965 | 7,391 | 6,342.6 |
| 1966 | 4,701 | 4,395 |
| 1967 | 14,313.9 | 11,890.5 |
| 1968 | 28,136.6 | 23,698.3 |
| 1969 | 60,787.8 | 51,000 |
| 1970 | 47,567.7 | 43,154.1 |
| 1971 | 60,696.6 | 52,873.1 |

Source: *) BPS (Central Bureau of Statistics)
 **) Plastic Commodities Survey

In 1972 which the assistance of UNIDO Phase I of the study related to the establishment of petrochemical complex in Indonesia was carried out.

The Phase I study dealt with prefeasibility studies and market survey and was conducted by a consulting company selected by UNIDO.

The Phase I study has identified two petrochemical complex alternative based on two alternative feedstocks, namely naphtha and natural gas and naphtha respectively.

The prefeasibility studies and market survey have provided the following basic information:

- the make up of the complex
- the size of the complex
- the timing of the complex

In view of the favourable results obtained in Phase I the Government of Indonesia has requested UNIDO's assistance for pre-investment studies of the petrochemical complex alternatives identified in Phase I, to be conducted in 1973.

The establishment of a petrochemical complex will enhance the development of the plastics industry because the supply of raw materials required by the plastic goods manufacturing facilities will be assured.

In regard to the establishment of the petrochemical complex, the overall development strategy in the petrochemical fields as well as detailed plans and programmes and policy measures are still being worked out by the Government of Indonesia.

IV. SUMMARY

- 1) The plastic goods manufacturing facilities are concentrated in Java.
- 2) The growing demand for plastic materials for the manufacturing industries has promoted indigenous production of these materials.
- 3) The establishment of a petrochemical complex is being studied by the Government of Indonesia in order to supply, among others, the raw materials for the plastics industry.

INVESTMENT PROMOTION PROGRAMME

In response to the request for submitting an investment promotion programme in the plastics industry, I would like to explain briefly as follows:

- 1) Recent investments in the plastics industry in Indonesia have been implemented either within framework of the Foreign Investment Law (Law No.1, year 1967) or the Domestic Investment Law (Law No.6, year 1968) of the Republic of Indonesia.
- 2) Investors intending to invest in Indonesia in the plastics industry should study themselves the feasibility of their proposed projects before submitting project proposals for consideration and approval by the Government.
- 3) In regard to the projected establishment of a petrochemical complex in Indonesia, the overall development strategy in the petrochemical field as well as detailed plans and programmes and policy measures are still being worked out by the Government of Indonesia.





75 . 11 . 19