



**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)



05303



Distr.  
LIMITED

ID/WG.153/1  
7 May 1973

ORIGINAL: ENGLISH

United Nations Industrial Development Organization

Seminar on Plastics Application  
in Developing Countries  
London, England, 18 - 27 June 1973

THE PRESENT STATUS AND FUTURE PLANS  
FOR DEVELOPMENT OF THE PLASTICS  
INDUSTRY IN KUWAIT AND  
TECHNICAL ASSISTANCE  
REQUIRED<sup>1/</sup>

prepared by

Hassan D. Mandan  
The Plastics Company Limited  
Kaifan, Kuwait

<sup>1/</sup> 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.

CONTENTS

	Page
Introduction . . . . .	3
Current Situation . . . . .	4
Marketing of Plastic Products in Kuwait. . .	5
Projection of Future Growth. . . . .	11
Plans for Future Expansion and diversification. . . . .	12
Major Problems, Technical and Economic, impeding or likely to impede growth. .	13
Problems Already Solved. . . . .	16

## INTRODUCTION

Although the plastic industry in the world has started more than forty years ago, it is worth noting that, while in 1957, the whole world production was approximately 100,000 tons, it has rocketed to the figure of 8.5 million tons in 1963. The demand for plastic materials today exceeds by far the requirements of the processing factories. It is, therefore obvious why resin and compound factories in the world are continuously expanding their production facilities.

Due to successful research and development of the various types of plastics, which is designed and tested by highly qualified scientists, the world today cannot do without plastics. The progress accomplished in this field has reduced the price of plastics to such a level, that in many cases it has proved to be more economical than other traditional materials. We can still add to this, the excellent behaviour of plastics, which includes dimensional stability, harmlessness in respect of food-stuffs, and to some extent, resistance to many mechanical, chemical and thermal influences.

Fortunately, a number of entrepreneurs have had the opportunity to see, through their business contacts in Europe and elsewhere, that the world today is quite advanced in the plastic field of industry and were ready to introduce this new business in Kuwait. Their first task was to choose the right product which could be proven feasible from the economical point of view. The second step was to form companies and raise the required capital to start this industry.

Although this was not hard to arrange, there were many problems which were to be faced and for which solutions had to be found. In this paper, I am trying to categorize this new small industry and outline the advantages as well as the handicaps, with some humble ideas as to what could be done to push it forward towards a "small scale" competitive industry.

2. The Situation

The situation in Kuwait was similar in 1967-1971 with limited capacity for the manufacture of products in Kuwait to cater to the local market demand only at that time. Therefore, imports of plastic products from foreign and adjacent countries have been increasing yearly.

The following schedule shows the imports of plastics and allied products to Kuwait during the period 1967-1971. This list illustrates only the values per product per year in Kuwaiti Dinars as the quantities and weights of each product could not be obtained.

SCHEDULE I

List of Imports of Plastic Products during 1967-71 in Kuwaiti Dinars

Name of Article	1967 K.Dinar	1968 K.Dinar	1969 K.Dinar	1970 K.Dinar	1971 K.Dinar
1.Pipes & Sheets	151525	123105	150074	222179	276915
2.Plastic Tiles	43366	86670	81927	85679	75393
3.Plastic Utensils	174119	206005	177265	215716	224015
4.Foam Rubber	55094	86426	68045	95335	91323
5.Synthetic Silk Fabrics, woven	2301518	2399001	3667999	4804906	5462150
6.Nylon Fabrics, woven	351809	722230	837933	1028336	1081181
7.Plastic Boats	--	--	13566	15218	14116
8.Other Plastic Products including PE Films & bottle crates, Cups, etc.	238266	383967	457104	384599	390152

Ref : Statistical Abstract 1970 & 1972

Published by the Kuwait Planning Board.

As far as raw materials are concerned, the following schedule illustrates the approximate weight of each product imported in Kuwait during the period 1970-1972 :

SCHEDULE II

	<u>1970</u> Tons	<u>1971</u> Tons	<u>1972</u> Tons
High Density Polyethylene	100	140	140
Low Density Polyethylene	120	130	130
High & Medium Impact Polystyrene	125	175	225
Polyurethane	100	150	250
Polyethylene Film in Rolls	200	300	400

Marketing of Plastic Products in Kuwait

1. Bottle Crates :

There are three major soft drink bottlers in Kuwait. Imports of bottle crates started in 1967, and these imports were made mainly from Spain, Italy and Greece. From 1967 and upto 1972, around one million crates made their entry into Kuwait, valued at 1.2 million dollars.

The only injection moulding machine in Kuwait is a GKN Peco Windcor 5LFR, owned by the Plastics Company Limited. The annual capacity of this machine, based on 3 shifts a day 300 days a year is 300,000 crates. This quantity covers the present requirement of local bottlers. As a matter of fact, this company has supplied bottlers in adjacent countries during 1971 and 1972.

Other users of these crates, including three dairy houses, have almost 100,000 crates in circulation. Dairy bottle crates were mostly supplied from Scandinavian countries.

2. Yoghurt Cups :

The consumption of throw-away plastic cups of 200-250 cc. capacity is enormous. The total number of such cups, made mostly of high impact polystyrene, exceeds 40 million cups valued at approximately \$400,000.- per year.

3. Ice-Cream Cups :

There are various sizes and sizes of ice-cream cups in Kuwait and it is ascertained that around 20 million are used in Kuwait every year with a total value of approximately 5,400,000.-

4. Pharmaceutical Bottles :

Before 1970, the Ministry of Health in Kuwait had been using glass bottles, a practice common in most parts of the world; but in 1970, a decision was taken regarding the use of plastic containers in the Ministry's dispensaries as well as at the Ministry's medicine factory.

The following schedule shows the Ministry's requirements during the period 1970-1973 :

SCHEDULE III

	<u>1970</u> <u>Bottles</u>	<u>1971</u> <u>Bottles</u>	<u>1972</u> <u>Bottles</u>
1. Bottle Dropper 10cc.	2484000	3000000	3000000
2. Bottle Dropper 15cc.	300000	--	--
3. Bottle Dropper 30cc.	120240	400320	144000
4. Bottle 60cc.	4343760	5000400	3672000
5. Bottle 120cc.	2700000	3312000	2203200
6. Bottle 240cc.	316080	550000	288000
7. Jar 500cc.	5000	7000	30000
8. Jar 1000cc.	10000	10000	40000

The average yearly requirement of the Ministry of Health is about 8,300,000.- In addition to these sizes, the Ministry requires substantial quantities of other types of containers such as water buckets, jerry cans, wash and waste baskets etc., all made of plastic.

5. Jerry Cans & Bottles :

During the last two years, a few chemical plants in Kuwait were started and since then, the need for plastic containers has increased substantially.



The list hereunder gives an idea of the already existing plants :

1. Sodium Hydrochloride (Ministry of Electricity & Water)
2. Detergents, liquid soaps & shampoos (Al-Sharhan Co.)
3. Antiseptics-SEPTOL (Ministry of Health)
4. Paints & Allied Products (Bengel Paints, Mega Paints etc.)
5. Sulphuric acid (Kwait Chemical Fertilizer Co.)

It is very difficult to ascertain the exact quantities of each container required by every plant, as the local industry was not the only supplier of these containers. Yet, considering the expansion of these plants, and from the figures already available, one can foresee the approximate quantities required per year for at least the following two or three years. These quantities can be summarized as follows :

<u>SCHEDULE IV</u>	
4-litre bottles	200000
1-litre bottles	150000
5-litre Jerry Cans	50000
20-litre Jerry Cans	50000
25-litre Jerry Cans	50000
Polyethylene Bags for fertilizers	8000000
Polypropylene woven bags for fertilizers	8000000

This Schedule does not include the requirements of smaller consumers in the local market.

6. Polyethylene & Polypropylene bags:

Upto the present time, Kuwait has been an importer of polyethylene and polypropylene products. It is true, that for the last five or six years, a few people have tried to enter this field of industry, but unfortunately, there were no reasonable capitals invested. In all cases, rolls of

polyethylene, in various sizes and thicknesses, were imported from neighbouring countries as well as Hong Kong and Japan, and were worked on simple cutting and welding machines to produce different types and sizes of bags.

But recently, a new company has been formed with a paid up capital of one million dollars. This company has already ordered most up-to-date machinery for the production of both, polyethylene and polypropylene films, with a capacity of over six million bags of each type.

It is quite evident that this project is reasonably justified, taking into consideration the huge number of bags imported by the Kuwait Chemical Fertilizer Company for the packaging of their ever increasing product of fertilizers.

The following table is a summary of the production of the Kuwait Chemical Fertilizer Company, during the period 1969 - 72, in metric tons :

SCHEDULE V

	1969	1970	1971	1972 (10 mths)
Ammonia	94.000	120.000	115.000	96.000
Urea	135.000	162.000	159.000	141.000
Ammonium Sulphate	35.000	71.000	71.000	90.000
Sulphuric Acid	29.000	58.000	55.000	77.000

Kuwait today is considered the largest single producer and exporter of nitrogenous fertilizers in the Middle East. The production of Ammonia and Urea of the Kuwait Petrochemical Industries Company has to be added to the above figures.

In the following table, we summarize the production of this Company during the last two years, in metric tons :

EXHIBIT VI

	1971	1972 (10 mths)
Ammonia	49,000	228,000
Urea	21,000	301,000

7. Fibreglass Products :

At the present time, three major companies are manufacturing products made out of fibreglass. The total capital invested in this industry is US\$ 1.5 million, and the main items produced are boats, furniture and water reservoirs with different capacities, starting from 500 to 10,000 litres.

8. Polyurethane Foam - Soft and Rigid :

There are two plants manufacturing foam rubber products in Kuwait, with a total capital investment of approximately US\$.400,000.- Their major products are mattresses, pillows, sheets and auxiliaries for the furniture manufacturers in Kuwait. Recently, one of the above mentioned producers of foam started the production of rigid foam for use as insulation material for pre-fabricated housing.

9. Melamine Products :

Only one factory producing melamine utensils exists in Kuwait. The capital invested in this project is about US\$.150,000.- This factory produces all types of cups, saucers, food dishes, bowls, ashtrays and advertising articles.

10. P.V.C. Pipes :

This industry has not started in Kuwait yet, but during 1972, the Ministry of Commerce & Industry issued two licences for two different groups. It is reported that the suggested capital to be invested in these projects would be approximately US\$.300,000.-

11. Alcoholic Beverage Licenses :

The Ministry of Commerce and Industry has issued two licences since 1967 for this type of industry, but it appears that these licences have not been utilized yet and the Ministry will eventually withdraw these licences.

12. P.V.C. Bottles for Shampoos, Edible Oils, etc:

As the Ministry of Commerce and Industry has issued new licences for the packaging of shampoos, detergents, anti-septics, as well as edible oils, it is anticipated that a large volume of this type of bottle will be required in the Kuwait market. Fortunately, the blow-moulding machines operating in Kuwait (at the Plastics Company Limited) are sufficient for the time being, to meet any eventual demands.

13. Expanded Polystyrene Industry :

This industry played an important role in the supply of this market and neighbouring Arab Gulf States, till recently, when an unfortunate fire resulted in a total loss. The investment involved is in the vicinity of US\$.175,000.- They produced STYROPOL - using BASF know-how. Their yearly production has been around 200 metric tons of expanded polystyrene.

PROSPECTS OF FUTURE DEVELOPMENT

Industrial activities in Kuwait do not include the manufacturing of radio and TV sets, refrigerators and air conditioning units, electric cables and motor cars, where plastic products, such as PVC and Polystyrene are important complementary items. In developed countries, thousands of tons of plastic raw material is utilised for these industries. At the same time, Kuwait is not an agricultural country where plastic packaging is required on a large scale.

To push forward the plastic industry in Kuwait, more diversification is required than expansion. For instance, new lines should be started, such as :

- a) **TEXTILES** : From Schedule I, we note that in 1971 alone, over 20 million dollars worth of synthetic and nylon fabrics were imported in Kuwait.
- b) **PVC & POLYSTYRENE PRODUCTS** : PVC pipes and fittings, window frames and decoration articles, such as false ceilings, floor tiles and wall decorations are very much in demand in Kuwait, although it is difficult to give the exact figures of imports from Schedule I, as these items come under articles 1, 2 & 8.

Therefore, a serious consideration should be given to build up such industry in Kuwait as early as possible.

PLASTIC INDUSTRY IN KUWAIT AND ITS EXPANSION

When one makes a thorough survey of the existing plastic industry in Kuwait, it will be very easy to realise that the items manufactured are limited. The main reason for this is the lack of credit facilities. It is much easier for larger industrial houses to obtain facilities from local banks, as well as from Governmental institutes. Although the small industrial sector could acquire the required capital to buy machinery and tools, the time had come when these industries started to need some diversification in their products. To be able to meet the demands arising in the market, it is always necessary to raise new capital to be invested for buying new moulds or forms. Such moulds are not only becoming more and more expensive, but in many cases, they are very difficult to obtain before six or ten months.

A review of the market demands in Kuwait, outlined in the marketing chapters, will lead us to assume that, for injection and blow-moulded articles, more than one hundred shapes and sizes of these articles have still to be acquired, in order to meet the requirements of each individual client. Therefore, it is not easy to ascertain the capital required by these industries to purchase the moulds needed. There is no doubt that each one of the existing plastic industries has its plans for expansion, but can make such expansions only gradually and very slowly, depending upon the availability of credit facilities.

INDUSTRIALIZATION, ECONOMIC DEVELOPMENT,  
IMPEDING OR DELAYING FACTORS

As in most developing countries, the major problems of smaller industries, as in the case of the plastic industry in Kuwait, could be outlined as follows :

1. Lack of Credit Facilities : Although no one can deny the fact that there is a lot of money in Kuwait, but, as elsewhere, it is not readily available for smaller establishments. Therefore, these establishments cannot enjoy the trade discounts usually offered on large orders of raw material; and whenever it becomes necessary to purchase new tools, they will not entertain long term facilities on payments, as the banks will not allow them to exceed the overdrafts already given to them on mortgage or other means of personal guarantees. It is quite common to see, on the balance sheets of such companies, large amounts listed under bank and loan interests.

The financing problem presents itself also when these industries have some expansion or diversification plans. This in itself is one problem which impedes any growth planned by the industry.

2. Lack of High Technical and Managerial Knowledge : Due to the shortage of trained manpower in this industry, it has become necessary to employ unskilled labourers and give them the necessary training on the job. For this reason, the productivity of these industries is always lower, and since technical training is usually not available, such labourers will progress very slowly.

As regards the managers of such establishments, it is very common to find such managers taking all the responsibilities of the management with all its functions. In many cases, such managers, though they could be College or University graduates, are not well informed about the techniques of the industry, e.g., the types of equipment and raw material needed, the feasibility of any production line and also the advantages of modern techniques and automatic machinery.

Therefore, a special care should be given to establish more sophisticated training centers in the area, where such men could be

recruited for a period of time, each in his field of technical functions. In addition to these elements, some sort of collaboration should be arranged between the local industries and similar industries in developed countries, where staff and technical information should be exchanged. It is also essential that machine and raw material manufacturers should invite staff from local industry to educate them on developments and new techniques of the industry.

3. Limited Markets : The marketing of the products of these establishments is usually carried out by the managers of these establishments. Due to the small size of Kuwait and adjacent Emirates, which form a potential market, this may be justified, as these houses cannot afford generally, to have special marketing departments in their business. In most cases, sales are arranged through intermediaries who charge commission on such sales. It is also to be noted, that due to the shortage of capital, such houses cannot highly invest in stocks of raw material. In cases where substantial orders suddenly fall into their hands, they find it most difficult to meet these orders as raw material is not always available for shipment from its country of origin, and even if it were, it takes over ten weeks on the average to reach Kuwait.

In general, these establishments arrange their sales in their factory offices as they usually do not operate showrooms to exhibit their products. We have also to mention that their advertisement activities are very limited compared with larger industries.

4. Absence of Large Scale Industry : This subject was already tackled under the title "Projections of Future Growth", and unless large industries utilising plastic end products, are established in Kuwait, which can absorb a good part of the products of their industry, there will be little or no change in the situation with minor substantial progress achieved.

5. Absence of Quality and Standard Controls : It is mainly due to the small capitals invested, that small establishments do not



Investment equipment for testing and quality control. It is also due to the ignorance of the workers, who are not aware of the importance of such equipment, which is an important factor for the success as well as the progress of the industry.

## Industrialisation

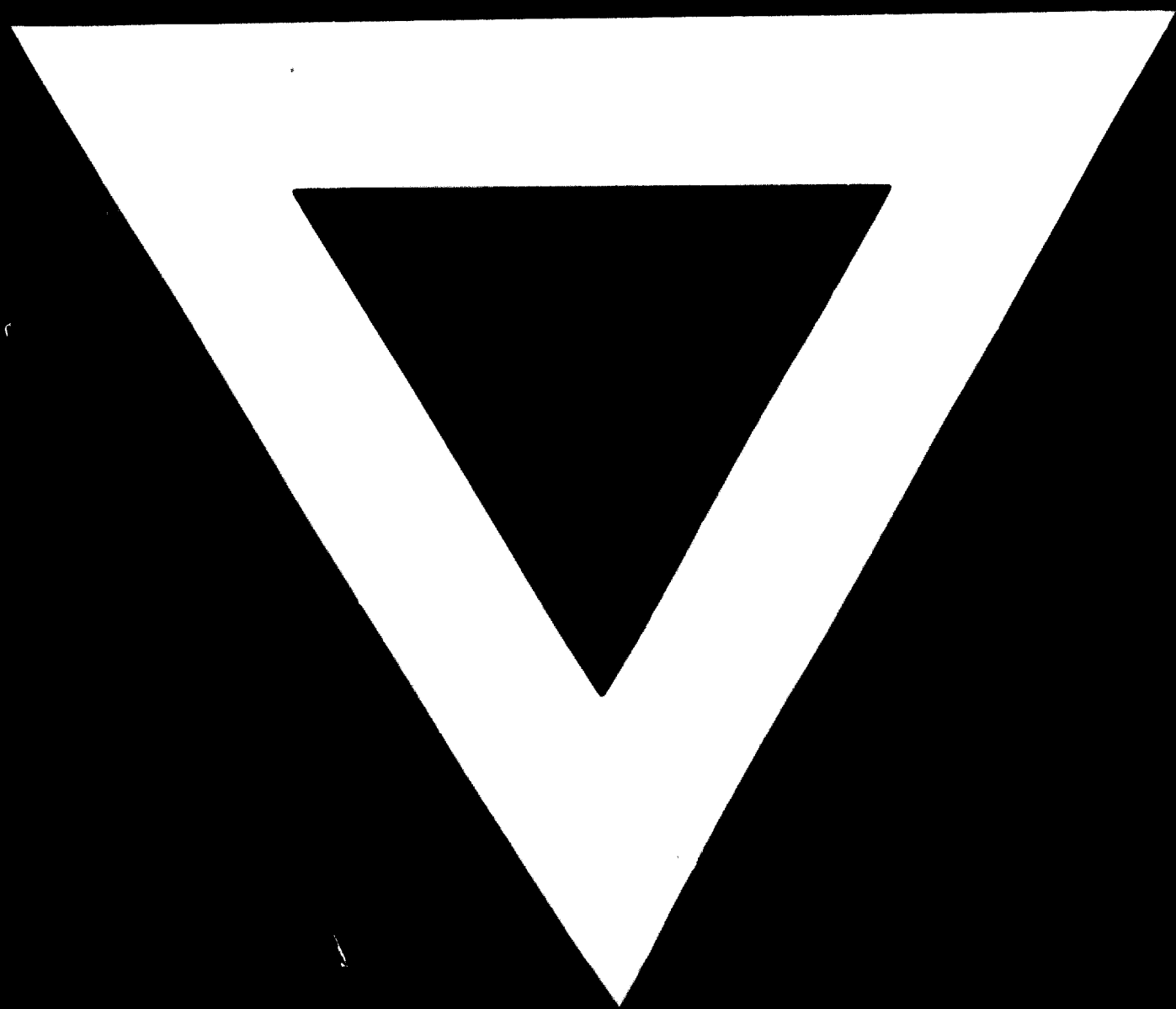
In one of their recent reports, the Kuwait Planning Board was not in favour of encouraging the local industries due to the lack of basic raw material and the fact that the oil revenue constitutes approximately 80% of the gross national income, the Kuwait Government has decided to extend the maximum encouragement for the existing industries, as well as new industries, in order to make the country less dependent on the oil revenue.

Contrary to the Planning Board's reports, the Kuwait Government, represented in the body of the Ministry of Commerce and Industry, has taken active measures on the continuation of its industrialisation programme. Naturally, the Government realised the difficulties involving developing countries during the first years of industrialisation, but it believes that such difficulties can be eliminated if these countries try hard to find the right solutions for the main economic and technical problems.

Along these lines, the Government had prepared a programme to develop the industrial sector by establishing factories producing consumer goods and by utilising locally available material, in order to increase the export of products manufactured in Kuwait. To encourage the local industry, the Government exempts all existing factories from any taxes for a period of ten years. Raw material and semi-finished complimentary products imported for the local industries are exempted from customs duty. Exports of all goods manufactured in Kuwait are also exempted from any export tax etc. The Government has increased the customs duty from 4% to 15, 20 and in certain cases to 40% on goods imported to Kuwait, which are similar to those manufactured locally.

In addition to the above facilities given to the industrial sector, the cabinet has passed a resolution asking all governmental departments to favour locally manufactured products. This resolution has one important restriction stating that the local products have to meet the specifications and price levels of similar imported goods.





**74.09.13**