

# Raw Materials for the Plastic Industry Situation and Solution

by TRẦN THANH VŨ

The HCMC plastic industry came into being before 1975 and became the Vietnam's biggest supplier of this line of products. It accounts for some 80% of the national output and therefore it determines development or decline of the whole industry. Its growth rate in the years 1990- 2004 was about 25% while the economic growth rate varied between 7% and 8% and the growth of the industrial output was 14%. The domestic and foreign markets provide it with many opportunities because the demand is on the increase. At present, however, the industry is facing difficulties caused by rises in the oil price, foreign competition, and the lack of skilled labor and capital.

## 1. Sources of raw materials for the plastic industry

Some 90% of the raw materials are from foreign suppliers. They include over 40 categories imported from many countries, such as Thailand, Singapore, Malaysia, Taiwan, India, China, Japan, Saudi Arabia, the U.S., Germany and France. At present when the industry is developing fast, the import volume varies from 1.23 million to 1.65 million tons every year and costs some US\$1 billion. The import value in recent years is as follows.

Thus, the demand for the plastic raw materials is on the increase but their prices and import volume are not stable because of fluctuations in the oil price. This means that the HCMC plastic industry, especially

Table 1: Import by the plastic industry

Year	Value (US\$ million)	Growth rate (%)
1993	100	-
1994	125	25
1995	242	93
1996	334	38
1997	384	15
1998	460	20
1999	482	5
2000	531	10
2001	531	-
2002	614	16
2003	785	28
2004	1,181	50

small enterprises, is facing difficulties. Vietnam is also an oil supplier

Table 2: Output of raw materials for plastic industry in Vietnam in 2000-2004 (1,000 tons)

Company	2000	2001	2002	2003	2004
Mitsui Vina	80	80	80	80	80
Phú Mỹ	-	-	25	100	100
LG Vina	30	30	30	50	50
Việt Thái	10	10	10	20	20
ELF Atochem	5	5	5	10	10
Total	125	125	150	260	270

but the petrochemical industry hasn't come into being, which also af-

Table 3: Expected demand for raw materials by the plastic industry (1,000 tons)

	2005	2010	2015
PE	686	1,300	2,093
LDPE	137	130	209
LLDPE	206	620	837
HDPE	343	650	1,047
PP	600	1,032	1,700
PVC	300	530	853
PS	66	116	186
BOPP	30	60	-
DOP	48	77	107

fects the development of the plastic industry.

In 1989, three kinds of raw materials, PVC; mixed PVC and DOP, were made in Vietnam for the first time. Up to 2004, only a few foreign-invested joint ventures produced these goods from imported materials.

When the petrochemical industry hasn't come into operation, it's hard to develop the production of raw materials for the plastic industry. In addition, the production of these goods requires big investments and no investor wants to start such a venture when no supply of petrochemical products is available in Vietnam. If only oil refineries in Dung Quất and Thanh Hóa come into operation could the production of raw materials for the plastic industry in Vietnam is feasible.

Moreover, nothing ensures that producers of such raw materials will gain a big market share in Vietnam in the future when Vietnam carries out all requirements pose by the AFTA by 2006. As we know, the tax rates will be reduced to a 0-5%

bracket by then, and ASEAN factories producing such materials could offer much competitive prices because their products have low costs and their factories will have finished amortization.

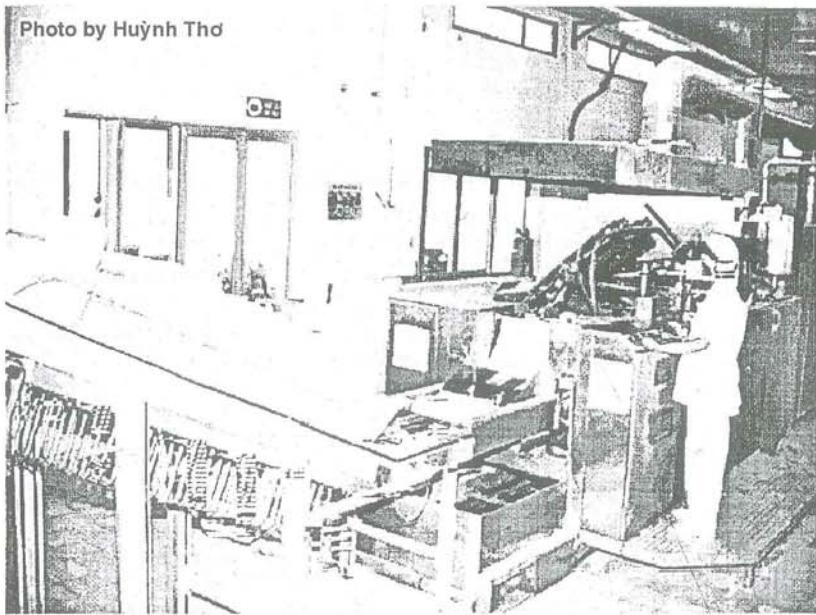
## 2. Prediction of the market demand

According to various calculations by economic experts, the growth rate of the domestic market demand will be at least 10% for the years 2005-2010; and 5% for 2010-2015. Based on estimates of rises in output of key industries that use plastic products, we can work out the market demand for raw materials for the plastic industry in the next 10 years.

## 3. Some measures to develop sources of raw materials

At present, the local production could only meet part of demand for

Photo by Huỳnh Thơ



raw materials. To ensure a sustainable development, the plastic industry must build its own sources of raw materials. This effort, however, requires support from other industries, and from the oil and chemical ones in particular. With an oil industry that has developed for some decades, the plastic industry could achieve its aim. Another problem is its limited source of finance because most plastic companies are of small size.

a. Local factories supplying materials: The plastic industry has to import various kinds of materials, from PVC to oil, grease, ink, color, sol-

vents, and many other semi-finished goods. To meet this increasing demand requires some 10 factories, which couldn't be built within a decade. So in the next ten years, it's reasonable to develop factories specializing in production of four important materials: PVC, PE, PP and PS with a total installed capacity that could satisfy some 30% of the demand by 2010 (or 700,000 tons) and 70% by 2015.

To supply materials to these factories, the petrochemical must produce naphtha and various kinds of gases (such as methane, ethane,

LPG, etc.). To achieve this aim, the petrochemical industry should carry out two plans in parallel in the coming years:

- To build factories to separate gases from oil wells in order to produce ethane, ethylene and propylene, etc. needed for making PP, PE and PVC.

- To import semi-finished goods to manufacture PVC, PE, PS and DOP for example.

- b. Joint ventures with foreign partners:

- The government should create a level playing field and healthy business climate for all companies of all sectors in order to attract more foreign investors.

- Long-term programs should be worked out to attract multinationals in the international oil industry, such as Exxon Mobil, Shell, BP-Amoco, Formosa, Dow-UCC and Petronas.

At present, many neighboring countries, such as China, Thailand, Malaysia and South Korea, have had raw materials for the plastic industry produced by joint ventures with foreign partners in their countries in order to gain economies of scale. According to the ASEAN Association of Plastic Producers, the production of raw materials in Asia - Pacific region can only satisfy some 80% of the market demand. This means that the opportunity for the Vietnamese plastic industry is still open if we know, and have plans, to take it.■

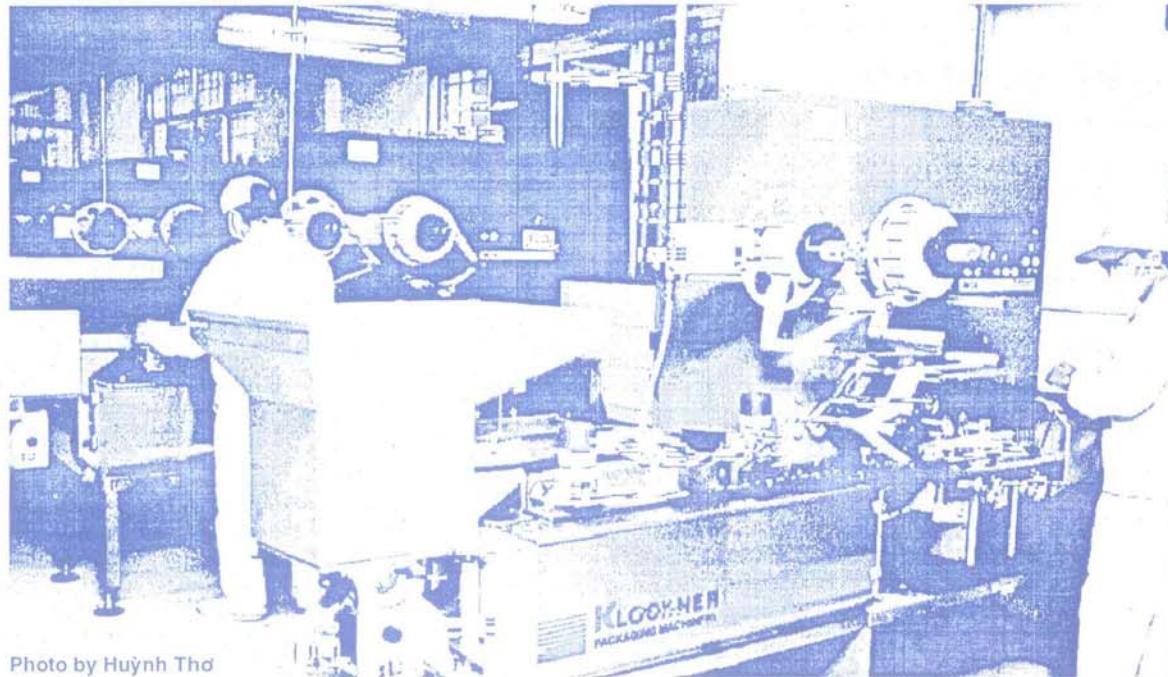


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