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THE DEVELOPMENT OF THE PLASTICS INDUSTRY IN PARAGUAY[1]

by

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PRESENT SITUATION OF THE PARAGUAYAN PLASTICS INDUSTRY

1. Fabrication of plastics in Paraguay started in 1962. After slow progress during the first six years there do exist today fourteen fabrication plants, covering the following processes:

- Extrusion
- Extrusion blowing (film and bottles)
- Injection
- Laminating
- Foaming (expanded polystyrene, polyurethane)
- Printing (flexographic, silk screen, hot stamping)

2. Neither raw materials nor any other components for their production or compounding are produced in Paraguay.

3. The different fabrication plants import all their raw materials predominantly from Europe. Better prices and payment conditions as well as regular availability are among the reasons why suppliers from that area are preferred. At present, Argentine suffers a considerable deficit of plastics raw materials which will limit her to be an importer rather than an exporter for a number of years to come. Brazil, on the other hand, has furiously been increasing its processing capacity and several new plants are expected to commence production during the remaining months of this year and during 1974. It is therefore possible that Brazil may replace overseas suppliers in some basic types of low density polyethylene and PVC.

The competitive condition of neighbouring producers could be enhanced if Paraguayan Government would agree to lower custom tariffs on imports from these countries. For the time being, import taxes on plastics raw materials are the same, irrespective of their origin.

4. The estimated consumption of raw materials for 1974 is the following:

High density polyethylene	300	metric	tons
Low density polyethylene	1,000	"	"
PVC	500	"	"
Polypropylene	100	"	"

Polyurethane	120 metric tons
Polystyrene	70 " "
Expanded polystyrene	30 " "
Reinforced plastics	20 " "
TOTAL	2,140 metric tons

A minimum average increase of 15% p.a. in consumption may be expected in the course of the subsequent years, bringing thus total input of raw materials by 1980 to a minimum of 4,000 tons p.a. However, the accelerating progress in all economic areas, particularly export, plus a number of infrastructure projects under consideration may induce an upward revision of these figures before the end of this decade.

5. Machinery and equipment in use are mostly of European make. However, rapid improvement in diversity and quality as well as easy credit terms offered by Argentine and Brazil for plastics machinery, convert these countries into attractive alternate suppliers, all the more that transactions are not affected by costly revaluations such as has been happening with the most important European countries.

6. The development of the plastics industry in Paraguay has been slow and laborious: lack of a ready market, accustomed to the use of traditional materials, fabricater's lack of experience and technical know-how, unavailability of technicians and skilled labour plus non-existent protection against the importation of similar products and certain regressive features of the Paraguayan tax system, compounded the difficulties that had to be overcome.

7. The number of existing plants today and their consumption of raw materials is, however, an eloquent indicator that formative years have been overcome and that the industry looks forward to consolidation and expansion despite the fact that certain problems and limitations remain to be solved such as:

- reduction of taxes on raw materials which presently are set at around 50% on their CIF value;
- better protection against importation of similar products;
- Improved depreciation rates of fixed assets deductable from income tax (presently 6% on machinery);

- tax incentives on investment and capitalization of profits;
- tax exemption (draw-back) on importation of raw materials for re-export of finished products;
- vocational training of technicians and workers;
- vocational training as applied to maintenance of equipment;
- construction of moulds;
- promotions of export possibilities (sub-contracting)

PLASTICS IN NATIONAL DEVELOPMENT

8. The non-existance of prime plastics consumers, like the automotive and home appliance industries, to which may be added the still little developed food processing activities, actually represent an important limitating factor for the rapid diversification and expansion of the plastics fabrication industry. These negative aspects, however, are partially compensated by equally non-existant industries producing metal, glass, ceramics, paper, card board. With the exception of cotton, no other natural fibres are grown.

9. Thus, the introduction of plastics made possible the substitution of certain traditional materials heretofore only imported: pipes, electrical conduits, bottles, film and heavy duty bags, packing straps, insulating materials, artificial leather, beads, foam mattresses, toys and shoes. The bulk of the production is, therefore, aimed at fabricating intermediate products for other industries.

10. The production programme of high density polyethylene and polypropylene pipes, which soon will also include PVC pipes, has played and will continue to play an important role in the carrying out of infrastructure projects for which different independent Government Agencies are responsible. For instance, the Capital of Asuncion holds the most extended network of high density polyethylene pipes in South America for the distribution of drinking water. The pipes are fabricated according to standards set by the National Institute for Technology and Norms to withstand hydrostatic service pressure of 142 lbs/sq". Once the present extension under construction will be completed, the following lengths will have been installed:

4"	pipes	59,000 metres
2"	pipes	354,000 metres
3/4"	pipes	370,000 metres

Further projects for the cities and villages of the interior are at different levels of study or execution.

Similar pipes play an important role in the implementation of a 5-year National Communication Plan and are used for the underground laying of telephone cables. At the present stage, about 50,000 metres of 3" pipes have been laid.

11. Other highlights in the use of plastics for National Development:

- the use of 4" and 6" polypropylene pipes for the casing of artesian wells down to 100 metres and filters, made from a combination of the same material;
- bottles and containers which have greatly contributed to the expansion of edible oil, fruit extract, pharmaceuticals, cosmetics and detergent industries;
- packaging materials for export products, particularly meat.

12. According to the consumption of raw material projected for 1974, the Paraguayan Plastics Fabrication Industry will save the country about 1,400,000 dollars in currency or 1½% of present imports. At the same time it will generate an internal aggregate value of about 350 million Garanis, equivalent to about 2,800,000 dollars. Employment within the sector should reach 400 people. However, considering that intermediate products are predominantly fabricated, five times as many jobs have been generated in other sectors of the economy.

FUTURE PLANS

13. In the near future, the following lines of products will be expanded or initiated by the fabrication industry:

- more film for agriculture and industrial use;
- more bottles and containers;
- greater variety of sport and leisure shoes;
- industrial boots;
- synthetic raffia;
- PVC pipes;
- manufacturing of PVC compound.

14. With regard to the use of plastic products, the following sectors will particularly contribute to assure expanding demand:

- water works;
- wells;
- housing;
- communications;
- agriculture;
- exports, particularly processed food stuffs;
- footwear.

15. The construction, within the next eleven years, between Brazil and Paraguay of one of the biggest hydroelectric plants in the world with a final capacity of twelve million KW and the completion in subsequent stages of equally superdimensional hydroelectric plants with Argentine, should generate for the next twenty years a tremendous need for goods and services that will directly or indirectly stimulate the plastics fabrication industry.

16. The perspective of unrelenting expansion and diversification will require continued investments for which adequate development loans are presently available.

However, working capital is short, a situation that could be alleviated by a more enlightened tax system.

17. Rationalization of process and quality control, combined with vocational training, will remain all important factors not just at the present but also for the future. In this area, no doubt, UNIDO's technical assistance would indeed be highly appreciated. We may note that since UNIDO took interest in the Paraguayan plastics industry last year, the assistance received has so far been very positive and put to good use by all beneficiaries concerned.

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