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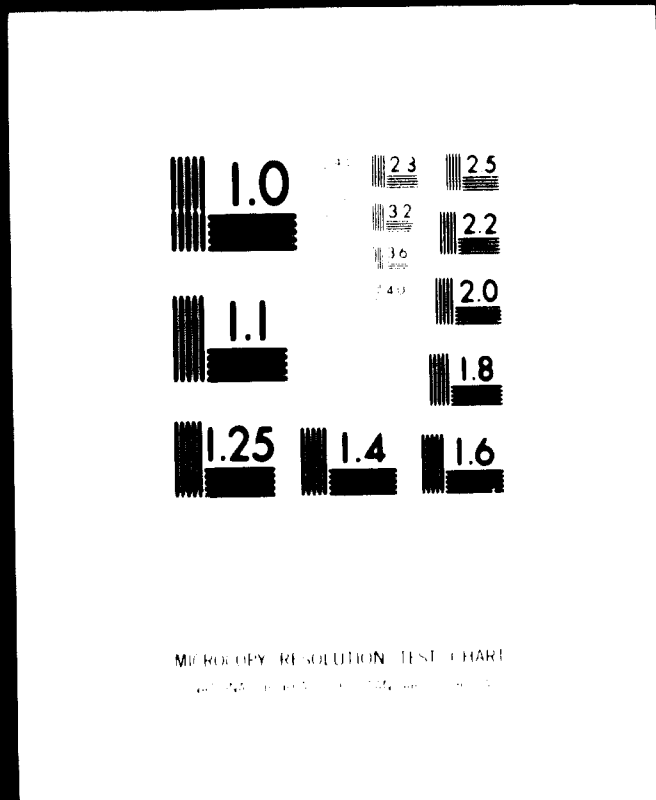
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Sixth Training Programme in Plastic  
Technology

Vienna, Austria,  
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PRESENT STATUS AND FUTURE PLANS FOR THE  
DEVELOPMENT OF THE PLASTICS INDUSTRY  
IN PAKISTAN<sup>1</sup>

by

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Plastic Industry in Pakistan is in the development stage and has just started to grow. At present there are only two major plastic industries which manufacture as well as process plastic. First is Pakistan PVC Limited which manufactures Polyvinyl Chloride (PVC-suspension grade) and processes it into different finished and semifinished products such as pipes, fittings, rigid plasticised sheets, artificial leather, cable, shoe and other compounds. The second is Synthetic Chemicals Limited which manufactures low density Polyethylene and Urea Formaldehyde and also processes Polyethylene such products as films, pipes, monofilaments, bags, electrical cables, canal linings, water hoses and containers, Urea Formaldehyde is used for gums, pastes etc.,

There are some other processors who use plastics, mostly PVC and Polyethylene, and make products by using techniques such as extrusion, blow moulding, calendaring, vacuum forming, injection moulding etc., and products like cables, pipes, shoes, rexine plastic sheets, containers and some others are made. In some instances other plastics are also used but the quantity is very small.

The third category of the plastic industry comprises of the very small processors who use only the hand moulding machines as manual labour is very cheap in Pakistan and also the initial investment needed for such machines is very small as also the technical know-how required is very little. These machines can make products such as lids for bottles, some small toys and other small items.

The present trend in the consumption is mostly for these articles which are being processed mainly from PVC and Polyethylene as these two are freely available in Pakistan. Some articles made of Polypropylene and Polystyrene are also processed but as indicated earlier the quantity is very small. Other plastics such as ABS, Polycarbonate and others which are being used in large quantities in other parts of the world are not known to the general plastic industry owner, the main reasons being the deficiency in technical know-how and also the nonavailability of these plastics in Pakistan. Similarly reinforced plastics have also not been introduced in the country.

The main reasons for the slow progress of the plastic industry in Pakistan are the problems involved in the marketing of these products. As many of the plastic industries are facing these problems. The largest outlet of plastics is in PVC pipes but it is interesting to note that the present consumption of 1500 tons/year of PVC pipes produced by Pakistan PVC Ltd., has been achieved after hard work and constant struggle for many years and it presents also it is not such as the potential for PVC pipes is much more than this in countries like Iraq and Iran have started setting up such large plants and it is hoped that with time, demand for PVC pipes will increase substantially. The reasons for slow progress are higher labour cost etc.

In the case of lining for canals it was envisaged that all the canals will be lined with plastic films as most of the water seeps out of the canal to the adjoining lands creating water logging & salinity in the already affected land but this was not possible because of the large capital required.

In other products the cost factor plays an important part as the cost of imported items is less than that of the locally made product thus making it difficult to sell the local product. These include compounds of different grades., sheets etc and in some cases the resin itself. This is probably due to the small plants with less capacity and with near obsolete machines and processes and also because of limited technical information.

The replacement of metals with plastic wherever possible will only be possible after concerted efforts both by the industry as well as the Government agencies and as long as this is not done the growth rate of plastics will be very slow. Some protection to the local industry will have to be given so that they are encouraged and larger and bigger plants are put up.

In some cases the change-over to plastics has been successful and now these items are being made from plastics and are in the market as their cost is lower than the cost of metallic products. Some products are such that which can be made but are not being made as there is no demand for them although if efforts are made some demand may be found for such items like window panes, other profiles, rigid corrugated and flat sheet, vacuum formed articles such as butter, jelly and ice cream cups etc.. There are

some imported plastic tiles in the market but local tiles are not able to compete as the production facilities are limited and machines are small. Facilities for compounding of cable grade, shoe grade and other compounds, are also available but the demand is not much. This is due to the slowness in the change from rubber and such to plastics and also in case of shoe compound due to the climatic conditions.

The future plans include setting up of a 4000 tons/year PVC pipe plant and the necessary machinery has already been obtained and it is hoped that this will shortly come into operation. Expansion in the existing facilities of pipe making at Pakistan PVC Limited are also at hand and after the setting up of the above two, PVC pipe production will increase considerably. Many other projects involving plastics are being planned and it is hoped that plastic industry of Pakistan will grow steadily. In order to make the growth rapid as well as uniform some assistance will be required from agencies like UNIDO, and the reasons for the need of this help and in the shape it is to be given are given below.

There are no testing facilities available in the whole country where products can be checked and tested. No research work in this field is being carried out thus keeping the progress down to a near stagnant position as no new products are being introduced and improvement in the existing products is also not possible. Training facility to the persons working in the industry are not available and most of the training is imparted by foreign technicians and this is the only source on which the work is progressing as we are bound by licenses and limitations and have to do on whatever technical know-how and information is supplied by the manufacturer or the supplier of the plants.

In this respect it would be very much helpful if UNIDO can provide such facility as a Plastic Centre where training, research and development work concerning the plastic industry can be carried out thus helping the present and future plastic industries in attaining a rapid growth etc., which can establish an ever expanding Plastic Industry in Pakistan.

The institute can also arrange for the latest literature from other countries as it will also help in the advancement of the industry. At present there is a shortage of such literature in Pakistan.

The institute can also bring out its own journal giving information to the industry regarding the work being carried out in the institute and the advantages of using better techniques with special reference to Pakistan, and other information concerning the industry including development work in the foreign industry.

The institute can be set up in the city of Karachi as both the major plastic industries as well as the majority of small plastic processors are situated here and it can work directly under the United Nations by the technicians at present working in the industry after they have been trained at the same institute or by other such institutes outside the country.

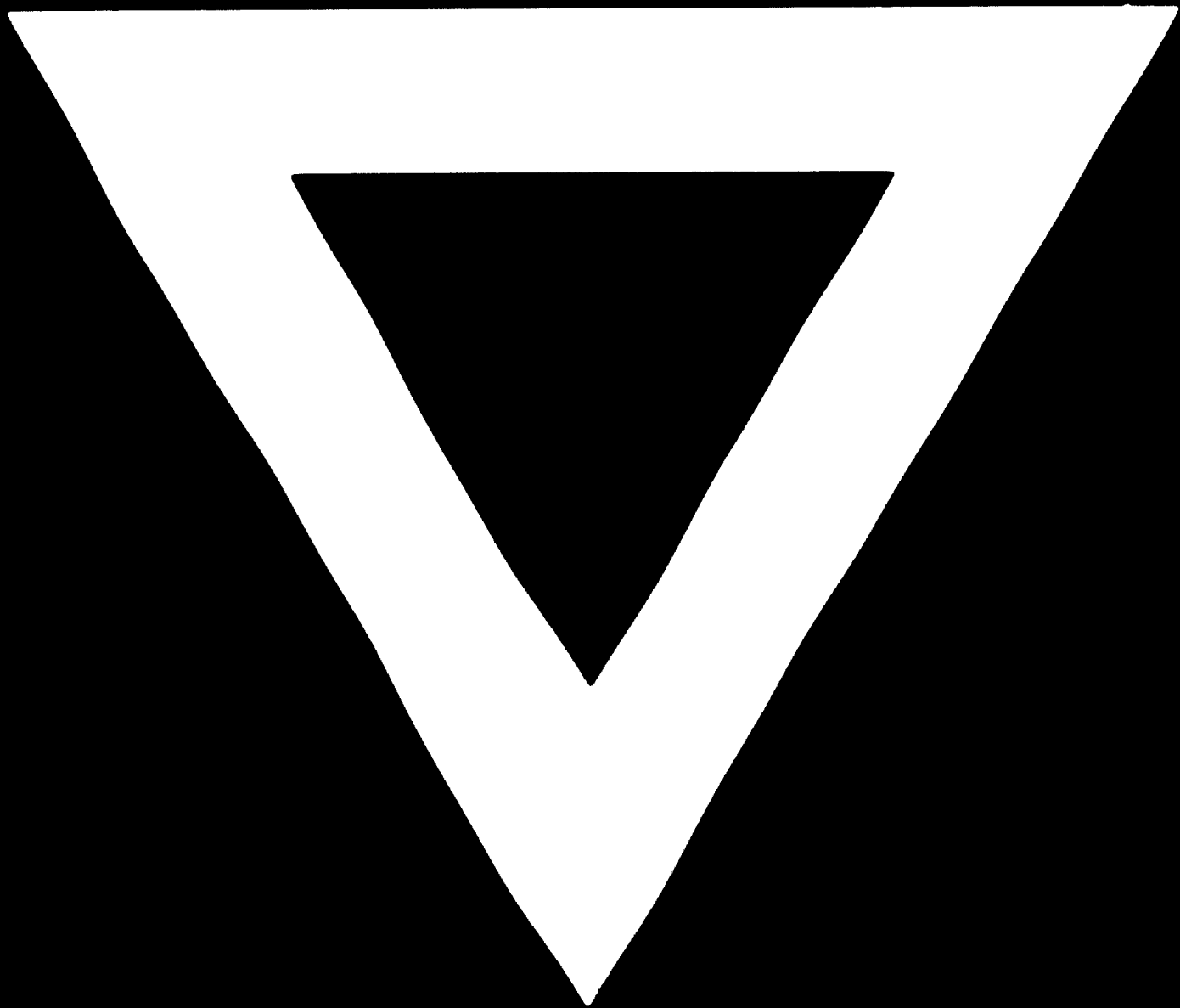
Since there is no such organization as a Plastic Institute which can help the existing as well as the future industry in its problems, it is very difficult for the plastic industry to grow and expand as quickly as it is growing in the other parts of the world.

Apart from the institute, training of personnel work in the industry in other countries should be facilitated and more training courses should be started of different durations and levels in different countries mostly the advanced countries of the world. This will tremendously help the industry to grow rapidly. This type of in-plant training as well as seminars and lecture or even Diploma courses can be held under the auspices of UNIDO.





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