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ESTABLISHMENT OF STEEL PLANTS IN SMALL DEVELOPING COUNTRIES

SOME CONSIDERATIONS<sup>1/</sup>

by

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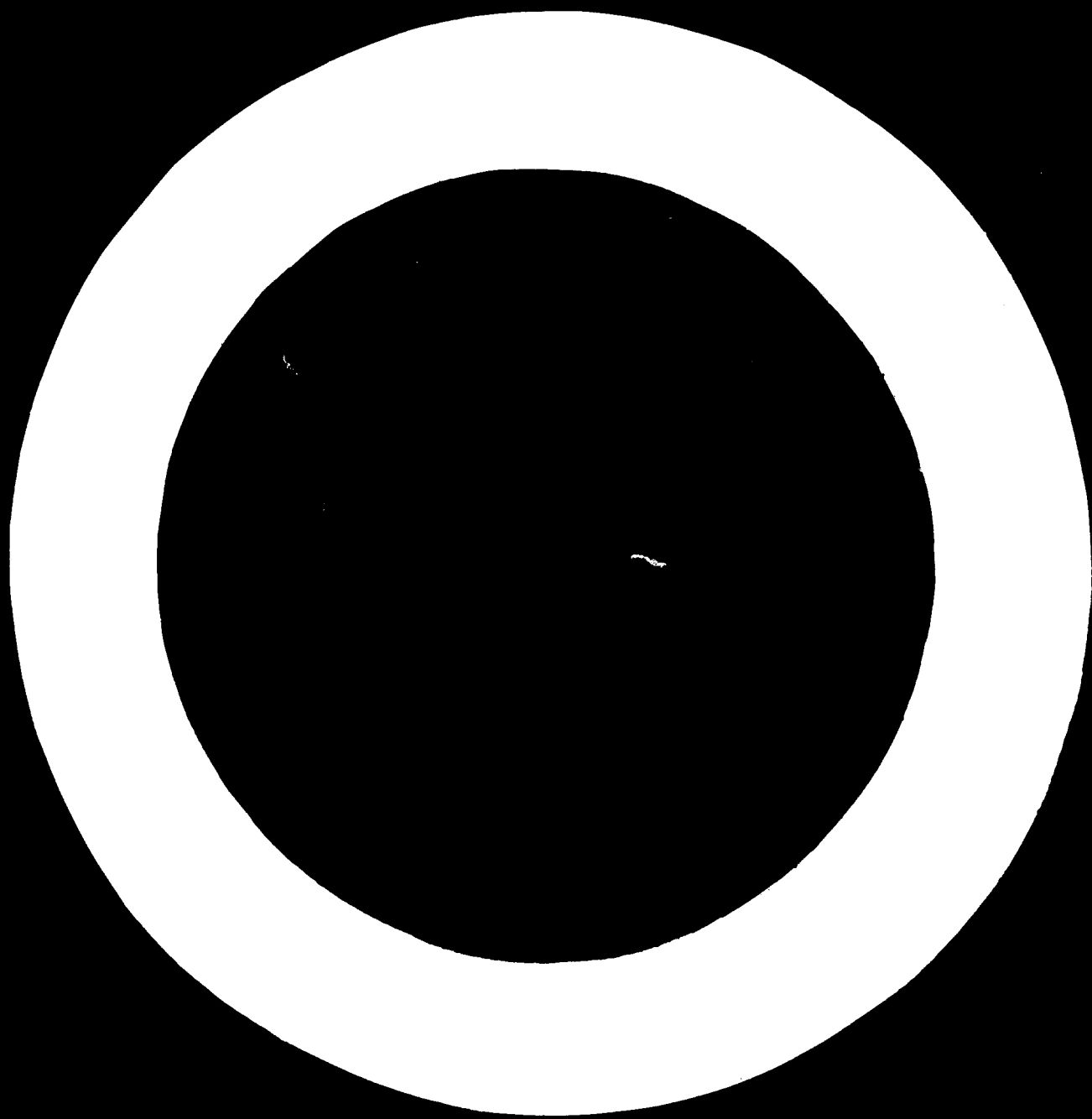
SUMMARY

Although there is an excess estimated world steel capacity of about 75 million tons at present, there is actually a shortage of steel in many of the developing countries. The forecast for the future indicate that consumption would increase by a further 50% of the present level by 1975. In spite of the economies of scale, which is marked in the steel industry, taking into consideration the vital role which this industry plays in stimulating economic development, there is a case for setting up small steel plants in developing countries to meet at least a part of this increase in anticipated demand.

Some developing countries, particularly those which are small, do not have the necessary know-how to design and construct steel plants on their own. They can, however, avail themselves of the services of plant suppliers, consulting firms or consortia specialising in this field. They could also work in

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<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. The document is presented as submitted by the author, without re-editing.



collaboration with a foreign manufacturer for establishing steel plants. The various advantages and disadvantages in each of these methods have of course to be weighed carefully before a final decision can be made.

The approach to the design of a small steel plant is radically different to that of a large integrated steel works. Failure to bear this in mind will result in excessive investment, overmanning and high operational costs.

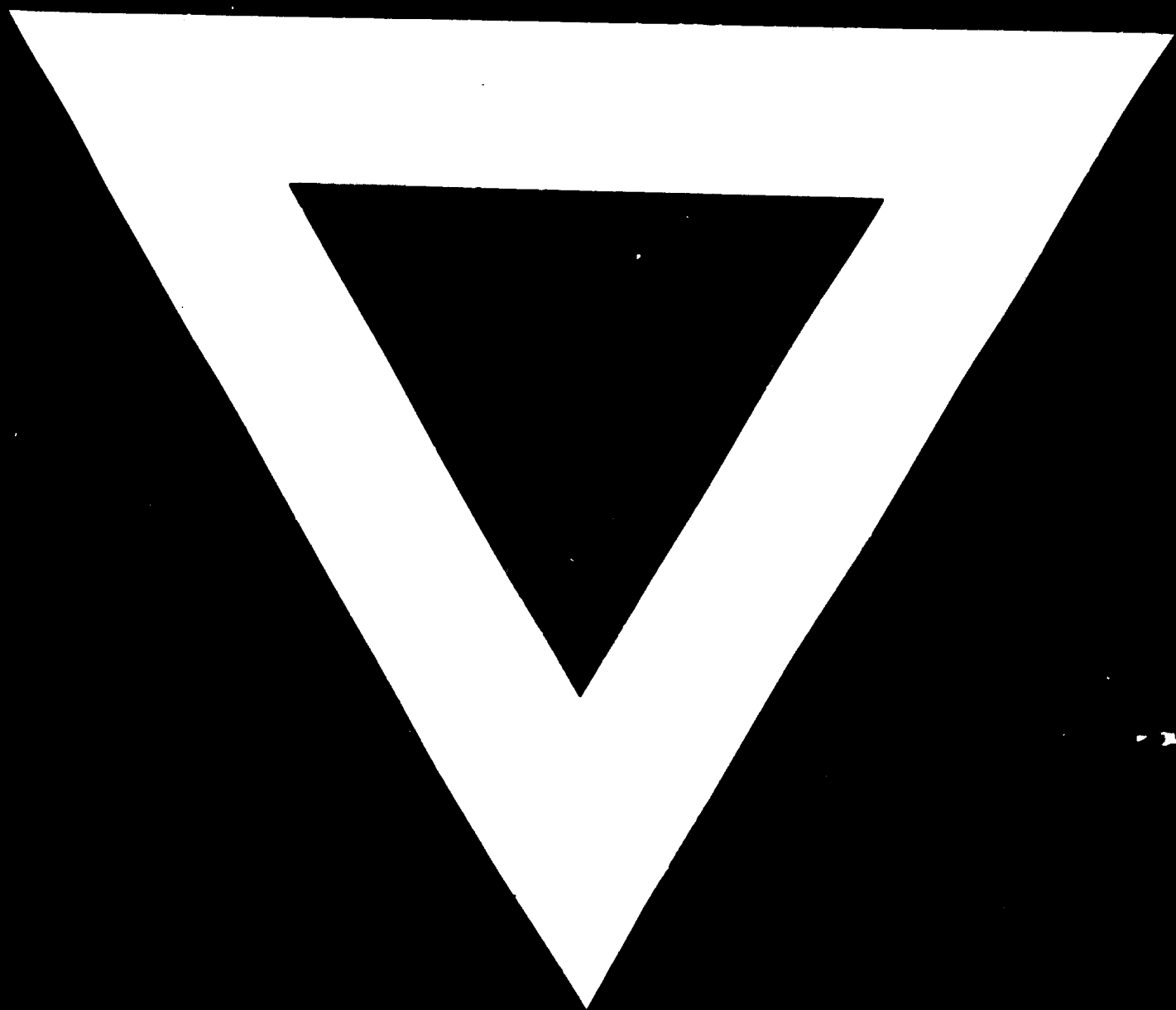
While detailed market surveys are invariably carried out before determining the capacity of a projected steel plant, inadequate attention is paid for co-ordinating local production with imports particularly during the early stages of production and this leads to unsold stocks and consequent losses and demoralisation.

In the selection of processes for steelmaking, while there are decided advantages in adopting one of the newer processes, one should be careful not to allow oneself to be manoeuvred into a position where one's plant becomes a large-scale pilot plant for testing out a new process. In the selection of plant suppliers, in addition to the cost of plant and machinery, special weightage should be given to after-sales-service and supply of spare parts.

Co-ordination between the plant suppliers who may be located in different parts of the world, civil engineering contractors, consultants and the client often present difficulties and these sometimes tend to slow down the pace of construction. These factors therefore have to be taken into consideration in planning the organisation for the management of the project. The presence of a design unit at the construction site with authority to amend design details when required will be found to be very helpful.

From the very early stages of project formulation provision should be made for organisation for operation and selection and training of personnel. Here again while adequate attention is normally paid to the technical aspects of the project, the administrative aspects are often neglected so that when the plant is ready to go into operation the supporting organisation is lacking.





**74.10.15**