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Fourth Consultation  
on the Iron and Steel Industry  
Vienna, Austria, 9-13 June 1986

PROGRESS REPORT  
ON THE  
IMPLEMENTATION OF THE RECOMMENDATIONS  
OF THE THIRD CONSULTATION ON THE IRON  
AND STEEL INDUSTRY\*

Prepared by the

UNIDO Secretariat

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1. Three Consultations on the iron and steel industry have taken place. The First Consultation on that industry was held in Vienna, Austria, in February 1977. The Second Consultation took place in New Delhi, India, in January 1979 and the Third Consultation was held in Caracas, Venezuela in September 1982. The reports of those meetings were circulated as documents ID/WG.243/6/Rev.1; ID/WG.286/7; and ID/WG.374/6 respectively.

2. The progress reports on the follow-up action taken on the recommendations of the First and Second Consultations on the iron and steel industry are contained in documents ID/WG.286/1 and ID/WG.374/5 respectively. These reports and the report of the Third Consultation (ID/291) reveal a certain continuity by which the consideration of the sector has progressed from the basic considerations of the iron and steel needs for the development of its main raw materials and fuels, and identification of the main problems of this sector at the country and global levels, to fairly complicated issues such as those related to the selection of technology, modalities of training and financing, and the entry of newcomers to the iron and steel sector.

3. At the Third Consultation, the issues related to training of manpower, financing of iron and steel projects, and entry of newcomers into the steel sector were discussed and recommendations accordingly adopted. With respect to training, the recommendations were oriented towards an increase of information and south-south co-operation in the field of training as well as the development of comprehensive guidelines of training methods. With regard to financing, the recommendations put special emphasis on the evaluation of existing systems for financing infrastructure and training. In relation to newcomers to the iron and steel industry, special emphasis was given to assisting those countries in their establishment of new projects, mainly in mini-steel technology.

4. Concerning implementation of the recommendations on training, a project has been formulated on guidelines of methodologies on training towards achieving greater domestic capacity for the mastering of technical and socio-economic complexities of the iron and steel industry. In the development of that project, the experience of developing countries was taken into account, and the main findings were thoroughly discussed with experts of selected developing countries. The main aspects developed in that research project can be found in document "Normative guidelines for the mastering of technology in iron and steel through training", ID/WG.458/1.

5. In the field of financing iron and steel projects in the developing countries, a study was undertaken to identify the main financial problems and financial sources for the development of iron and steel projects in developing countries. There were also studies developed with respect to existing systems for financing infrastructure and training. Those studies are: "The financial problems and the development of the iron and steel industry", ID/WG.458/10; J. Pearce, UNIDO consultant, "Developments in the financing of industrial projects in developing countries since 1982", July 1985; "International financial flows to industry: some sectoral trends", UNIDO/PC.104, September 1984; "The use of mixed credits in the United Kingdom for the financing of industrial training and infrastructure", UNIDO/PC 130, December 1985; and also "Importance and possibilities of financing of infrastructure and personnel training in the iron and steel projects", ID/WG.458/2.

6. On the subject of the entry of newcomers into the iron and steel industry, a symposium was held in Stockholm, Sweden from 25 May to 4 June 1983, exclusively organized for the newcomer countries. In that symposium, special emphasis was given to the analysis of the mini-plant technological route. As a follow-up of that symposium, an international seminar on iron and steel was held in Karachi, Pakistan from 19 to 27 May 1984. In that seminar the following topics were discussed:

- (i) Appropriate technology for steel production in developing countries;
- (ii) Financing of the steel industry, particularly for infrastructure and training, with special emphasis on the mini-steel industry;
- (iii) Integrated development of the steel industry, linked with agricultural machinery and capital goods industries;
- (iv) Operational problems of steel plants in developing countries: the role of UNIDO's technical assistance programme;
- (v) Training and manpower for steel industry in developing countries.

In order to obtain valuable information which could be of help to newcomers in the development of their mini-plants projects, the UNIDO secretariat made a survey on 74 mini-plants of a wide range of size and type, located in 23 developing and 13 developed countries. For further details on this subject see document "Mini-steel plants: an analysis of their main characteristics and level of integration and the possibilities for co-operation", ID/WG.458/4.

The UNIDO secretariat held an expert group meeting in Vienna, Austria, from 2 to 5 December 1985 in order to assist African countries in the establishment and operation of mini-plants on iron and steel.<sup>1/</sup> Many of the directors of the mini-steel plants in Africa attended the meeting, at which important guidelines were discussed and recommendations made for improving the establishment and operation of mini-plants in developing countries, mainly in Africa. It was also recommended to create a regional association of African producers in order to implement, in a co-ordinated manner, actions for problem solving, namely in the area of technology and training, information, production and commercialization.

<sup>1/</sup> Report of the Expert Group Meeting on the Preparation of Guidelines for the Establishment of Mini-Plants on Iron and Steel with Special Emphasis on Africa. Vienna, Austria, 2-5 December 1985, UNIDO/PC.132, 29 January 1986.

7. In relation with the preparation of the Fourth Consultation special emphasis was given to the analysis of the present situation on the iron and steel industry and the restructuring process taking place at the world wide.<sup>2/</sup> In this context alternative development strategies for the iron and steel industry in developing countries were analysed. For this purpose special emphasis was given to the study of the linkages of the iron and steel and the other sectors of the economy mainly the capital goods sectors. This analysis was undertaken at the global level <sup>3/</sup> and in selected developing countries.<sup>4/</sup> The main findings were discussed in a ad-hoc expert group meeting held in Vienna, Austria from 16 to 18 October 1985. The conclusions and recommendations of the meeting can be found in document UNIDO/PC.127, November 1985. In this expert group meeting one of the main recommendations was that "there is an important need for developing countries to develop an integrated approach between the iron and steel industry and the capital goods sectors as a basis for a more independent and self-reliant economic and social development. Such a strategy, to be successful, will have to be anchored on the specific conditions and possibilities of each region and the national economies of the region, namely: raw materials availability, levels of technical development and training of manpower, and the satisfaction of the basic needs of the population."

- 2/ For further detail see: "The world crisis of the iron and steel industry and its impact in the development of this industry in developing countries", ID/WG.458/3. Background document for the Fourth Consultation on the Iron and Steel Industry. Vienna, Austria, 9-13 June 1986.
- 3/ "The integrated development of the iron and steel industry and the capital goods sectors in developing countries", ID/WG.458/5; "Integrated development of steel industry particularly mini-steel linked to capital goods and agricultural machinery", ID/WG.458/7. Background documents for the Fourth Consultation on the Iron and Steel Industry. Vienna, Austria, 9-13 June 1986.
- 4/ "Possibilities and modalities for an integrated development between the iron and steel industry and other sectors of the economy in Latin American countries", ID/WG.458/6; "The integrated development between the iron and steel industry and the capital goods sectors: case studies", ID/WG.458/9; "Prospects of an integrated development of the iron and steel industry and capital goods: East and Southern African countries", ID/WG.458/8. Background documents for the Fourth Consultation on the Iron and Steel Industry. Vienna, Austria, 9-13 June 1986.