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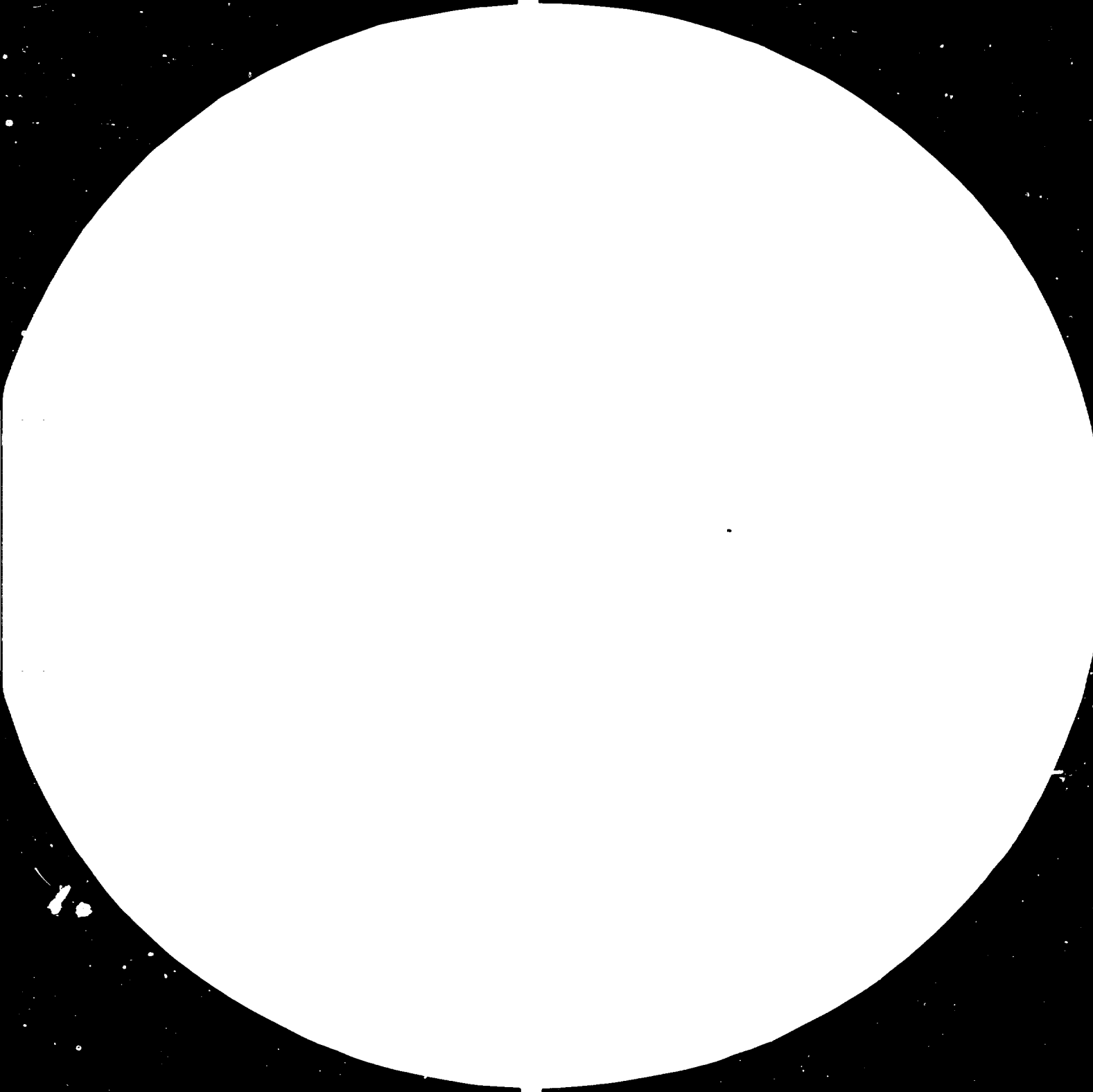
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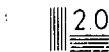
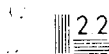
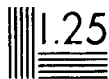
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SMALL EXPERT GROUP MEETING ON SCENARIOS
OF THE IRON AND STEEL INDUSTRY'S DEVELOPMENT *

Vienna, Austria, 3 - 5 September 1980

R E P O R T

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INTRODUCTION

1. The Small Expert Group proposed by the Working Group Meeting on Scenarios which had met in Algiers (3 - 5 December 1979) met in Vienna from 3 to 5 September 1980 in order to provide guidance, correct and amend the work of UNIDO Secretariat leading to the elaboration of the intermediate scenarios for the period up to 1990.

The meeting was attended by members of the Small Expert Group with the exception of Mr. Lacerda and with the involvement of Mr. Miksa who has replaced Mr. Firek.

I. ORGANIZATION OF THE MEETING

Opening of the Meeting

2. The Small Expert Group Meeting was opened by the Chairman of the UNIDO Task Force on the Iron and Steel Industry. The Chairman, Mr. R. Hocine (Algiers) and the Vice-Chairman, Mr. B. Rollinger (Federal Republic of Germany) took over the meeting.

II. SUMMARY OF DISCUSSIONS

Consideration of the paper UNIDO/ICIS.161 "Picture for 1985 of the World Iron and Steel Industry" and the paper UNIDO/ICIS.161/Add.1 "New Elements for the Preparation of 1990 Scenarios".

3. Mr. W.B. Cramer who was unable to attend the meeting had submitted his remarks on the paper UNIDO/ICIS.161, in writing. The remarks were distributed to the participants of the meeting and taken into account during the discussions.
4. A view was expressed that the range of the world overcapacity given in the paper to be 300 million tonnes is highly questionable. An equilibrium or an overcapacity reduced to a smaller range is more likely to start with. However, a quantitative forecast will not be prepared. Particular attention should be paid to imbalances in the relationship supply/demand and particularly in the developing countries.

5. Some speakers expressed doubts about suitability of the notion "crude steel equivalent". Therefore an attempt should be made to estimate possible supply/demand ratio in tonnage of the finished products break-down: long products, flat products. The break-down should be made on regional basis.
6. Efficiency of the iron and steel industry in developing countries should be expressed in terms of steel industry's contributions to the growth of engineering and steel-based industries and overall economic developments, social costs and benefits instead of applying purely commercial criteria of profitability, which differ from one country to the other and from one region to the other. It was stressed, however, that the growth of steel industry depends on profits from sales. Therefore, minimum price of steel products should cover production costs.
7. Although it has been proposed to make a quantitative assessment of the future strategy of demand on the basis of known behaviour of main steel consuming sectors (construction, car production, ship-building) it was also stated that an assessment of demand as proposed in the paper UNIDO/ICIS.161 (page 51) would be time-consuming. Existing estimates or simplified estimations should be made in order to devote more time and effort to scenarios of steel production.
8. Inadequate industrial infrastructure in developing countries has been recognized as one of the basic obstacles on the way of development of the iron and steel sector. Therefore, industrial infrastructure should be regarded as one of the main variables.
9. Some speakers saw a need for closer examination of delays of steel projects and iron ore mining projects in developing countries in order to estimate their impact on the supply of steel in these countries in 1985 and later.
10. The point was made that trend towards self-sufficiency of developing countries does not imply a lack of interest for international markets since there will be always an exchange of products. On the other hand, it was stressed that developing countries are motivated basically by needs of their domestic markets.

11. It was noted that key elements contributing to the shortage in 1985 should be identified in order to propose some preventive measures.
12. A view was expressed that criteria of rentability and rates of risk differentiated according to regions are going to influence policies of banks and subsequently an availability of financing.
13. One of the members of the Small Expert Group outlined methodology of analysis of relationships between steel intensity (defined as ratio steel consumption/GDP) and GDP per capita. The methodology might lead to an identification of constant values typical for countries that is reflecting a nature of their growth.

A doubt was expressed about suitability of the Kondratiev curve (cycle) for the purpose of elaboration of steel scenarios since it was regarded to be applicable on the higher level of generalization comparable to the level of Toynbee's and Spengler's concepts.
14. A member of the Group expressed a view that increasing costs of energy are going to reduce the share of steel produced through direct reduction route.
15. It was stressed that the final report should contain not only scenarios for 1990 but also an analysis of key elements influencing a future pattern of steel production particularly those which prevent expansion of steel production in developing countries.
16. The point was made that the purpose of the work towards scenarios has been to highlight a normative scenario and to elaborate alternative solutions.
17. It was emphasized that the concept of "expertise" in the context of work on scenarios implies both technical and managerial, administrative and other skills.
18. The Small Expert Group has analysed the variables proposed by the Secretariat of UNIDO among which key variables should be selected and main linkages between those to be formulated. The Small Expert Group agreed on the necessity of reducing considerably the number of variables proposed and on regrouping them on seven identified files to deepen. The most critical linkages should be gathered among specialized organizations which have already studied such subjects.

AGREED CONCLUSIONS AND RECOMMENDATIONS

1. In line with the decisions taken in the Iron and Steel Industry Working Group Meeting in Algiers (3 - 5 December 1979) as

"There would be two principal types of scenario for 1990; the first would be normative, setting out the implications of reaching the Lima target; the other would be exploratory showing possible alternatives based on various assumptions. The two scenarios would be based on the pattern of 1985 and the problems identified at this stage. The purpose of the scenarios should be clearly defined in order to specify their scope and nature. The purpose would be to highlight the problems arising within the possible alternative future situations, and in addition to offer proposals for their solution and provide guidance for national policy makers",

the Small Expert Group has discussed the paper "Picture for 1985" and has reached the following conclusions:

- a) "The Picture for 1985" was accepted as a basis for further work towards scenarios provided:
 - i) the reduction of the world overcapacity figure;
 - ii) the breaking down on regional basis and by product type (flat products and long products) of the developing countries' deficit;
 - iii) the addition to the main causes of delay of setting up new capacities in developing countries (as given in the UNIDO paper) of two points :
 - insufficient infrastructure facilities; and
 - important delay of construction and offered level of production.
- b) Shortage of steel in developing countries estimated to be in 1985 about 60 to 70 million tonnes should become a starting point of scenarios for the horizon 1990 - 1992. Within the framework of the normative scenario should be elaborated recommendations aimed towards an increase of production capacities in developing countries.
- c) The gap in developing countries between supply and demand for 1990 - 1992 should be picked up from existing forecasts, compatible with the 1985 picture and would not require additional investigations other than breaking down the gap into regions and by type of products (flat and long)

2. The Small Expert Group provided guidance for the construction of two scenarios for 1990 by:

- a) Defining the following seven key elements (files), broadly representing the causes of deficit in the iron and steel production in the developing countries :
 - i) Cost and Financing
 - ii) Raw Materials and Energy
 - iii) Technology and Research
 - iv) Infrastructure, Transport and Location
 - v) Development of Human Resources and Manpower
 - vi) Markets, Product-mix and Scale
 - vii) Project realization and Operation

- b) Agreeing that the most important sub-items (basic variables) of the key files which affect the implementation of projects in the decision-making, construction and operation phases should be reduced in number to a maximum of sixty among 160 listed by the UNIDO Secretariat. The members of the Small Expert Group have offered to send to UNIDO Secretariat their review and when possible their ranking of the main variables to be considered in the files.

- c) Recommending that the linkages analysis of variables, both key elements and sub-variables should concentrate on the most important factors, considering of course different priorities on a regional basis.

3. It was decided to modify the time table of preparatory work as follows:

- a) Drafts of scenarios for the horizon of 1990 should be prepared and submitted to the second meeting of the Small Expert Group which should be convened on 14 and 15 January 1981 in Austria (Vienna or Innsbruck)

- b) Improved versions of scenarios should be discussed at the plenary meeting of the full Working Group in March 1981

- c) The deadline of the work on scenarios (readiness for the IIIrd Consultation Meeting) is to be maintained.

LIST OF DOCUMENTS

1. Picture for 1985 of the World Iron and Steel Industry (UNIDO/ICIS.161)
2. New Elements for the Preparation of 1990 Scenarios (UNIDO/ICIS.161/Add.1)
3. Interim Report on World-wide Study on the Iron and Steel Industry
(Contribution to the World Iron and Steel Scenarios up to 1990)
July 1980 - Dastur Engineering International GmbH.
4. Contribution to the World Iron and Steel 1990 Scenarios. July 1980
VOEST-Alpine.
5. Aide-Memoire - The Energy Outlook with Special Reference to Energy
Cost and Fuels and Materials (by Mr. A. Szpilewicz)
6. Remarks concerning the paper UNIDO/ICIS.161 (by Mr. W.B. Cramer)
7. List of participants.

Small Expert Group Meeting on Scenarios of the
Iron and Steel Industry's Development

3 - 5 September 1980, Vienna, VIC D-1851

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