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Agenda item 7

DRAFT REPORT OF THE INTERGOVERNMENTAL GROUP OF EXPERTS ON IRON ORE ON ITS THIRD SESSION

held at the Palais des Nations, Geneva
from 24 to 26 October 1994

Rapporteur: Ms. Zonia Osorio de Fernández (Venezuela)

**AGENDA ITEMS : 3, 4, 5 AND 6
AND ORGANIZATIONAL MATTERS**

Note for Delegations

This draft report is a provisional text circulated for clearance by delegations.

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INTRODUCTION

1. The third session of the Intergovernmental Group of Experts on Iron Ore was held at the Palais des Nations, Geneva, from 24 to 26 October 1994.

2. In the course of the session, the Group held two plenary meetings. At its 5th (opening) meeting on 24 October, it decided to pursue its discussions on agenda items 3, 4, 5 and 6 in informal meetings. It was agreed that a summary of the informal discussions for inclusion in the report would be presented by the Chairman at the closing plenary meeting.

3. In his introductory statement, the Officer-in-Charge of the Commodities Division of UNCTAD, welcoming government representatives, and experts from the iron ore mining sector as well as from the steel industry and international organizations, pointed out that, thanks to their effective participation, the annual sessions of the Expert Group had become a reference-point for iron ore circles. Recalling that, in times of increasing competition when market information was more crucial than ever, the network established by UNCTAD on iron ore was undoubtedly a useful instrument contributing to greater market transparency and closer cooperation in this field, and helping to disseminate market analyses, statistics, information on current world-wide activities and publications on iron ore and related matters, business contacts, etc. to all those interested.

4. The year 1993 had marked a revival in the volumes traded, but not in prices on the world iron ore market, despite the slow-down of the Japanese and European economies. The world market for iron ore had experienced a strong growth of nearly 8 per cent in trade volumes. Iron ore remained the most traded mineral commodity, and its world exports had reached 398 million tons in 1993, thanks to the growing demand for imported ore in China and most developing regions. He noted however, that iron ore trade transactions had amounted to US$ 7.55 billion in 1993, the lowest value since 1989. While all major exporting countries had benefited from the market upturn, their gains had been mitigated by the successive falls in world iron ore prices. A similar situation was occurring in 1994, because the boost in demand and the tighter supply situation had not prevented another collapse of iron ore prices (of -19 per cent during the 1993-94 period). Today, demand for iron ore remained steady but prices were

around 25-30 per cent below the 1991 level, leaving iron ore a major exception not benefiting from the recent rise in commodity prices.

5. Globally, iron ore output had grown by 2.5 per cent to 942 million tons in 1993, despite the sharp drop in mining and steel activities in the CIS States. Although the low level of prices had not been conducive to new greenfield projects, major iron ore companies had continued to invest in replacements and capacity expansions to assure long-term supply. Four main projects had started operations in 1994, in Australia, Brazil, Mauritania and Venezuela, respectively, and experts from the companies concerned would report to the Group on their recent project development experiences. Also noteworthy was the focus on enhancing quality and reducing costs. Some iron ore companies had already been awarded the ISO 9000 series certificate.

6. Recent iron ore developments had also shown more clearly the impact of environmental constraints, technological advances and cost considerations on the demand for different types of ores. The expansion of the direct reduction market was already influencing the demand for lumps and pellets. He wondered whether the emerging smelting reduction technologies would revive the interest in fines and concentrates. Furthermore, how should iron ore suppliers re-shape their products to best serve their customers in the near future? To reflect on such questions would undoubtedly be a fruitful exercise for the Group, not only for the assessment of the current situation but also to harmonize views regarding future trends which would influence iron ore market developments in the coming years.

Chapter I

REVIEW OF IRON ORE STATISTICS AND OF OTHER INSTITUTIONS' ACTIVITIES AND PUBLICATIONS ON IRON ORE

(Agenda item 3)

A. Review of the document "Iron ore statistics 1986-1993" (TD/B/CN.1/IRON ORE/12)

7. The UNCTAD secretariat presented this document containing 27 tables with updated statistics, based on the replies received to the UNCTAD questionnaire on iron ore. As of 15 July 1994, 38 countries and the European Commission on behalf of the 12 member countries of the European Union had responded to the questionnaire. It was noted that a greater number of countries (10 countries more than in 1993) had replied to the questionnaire in 1994, in particular the new republics of Estonia, Kazakhstan, Moldova and Slovenia, which had provided iron ore data to the United Nations for the first time. On the other hand, as there were no sufficient data for 1993 regarding the origin of iron ore imports into eastern Europe, the corresponding table had been deleted. However, given the growing importance of China to the world trade in iron ore, a new table showing the origin of iron ore imports into China for the period 1988-1993 had been included in the document.

8. Recalling that one of the aims of the Group was to compile comparable statistics, the secretariat drew the experts' attention to the importance of filling in the questionnaires using the commonly agreed definitions. In particular, in the case of iron ore production figures, care should be taken to avoid double counting of ores which were to be agglomerated, as well as to report figures for marketable products only. Noting that there was scope for improvements this regard, a useful exchange of views took place and the experts decided to review the format and the definitions used in the UNCTAD annual statistical questionnaire on iron ore. Some modifications were proposed to table A.1 dealing with iron ore production and production capacity. It was expected that the changes would help the statistical focal points in providing the iron ore production figures in a more comparable and appropriate way.

9. Revisions and up-to-date statistics were provided by participants for inclusion in the revised version of the document (TD/B/CN.1/IRON ORE/12/Rev.1) distributed in the course of the session.

B. Year-to-date statistics and estimates for 1994 and 1995

10. The secretariat distributed at the beginning of the session the informal document entitled "Year-to-date iron ore statistics and forecast for 1994 and 1995", presenting information on iron ore production, consumption and trade for the first half of 1994 and estimates for the whole of 1994. These data were provided in reply to the request addressed by the secretariat at the beginning of September 1994 to the major producing and consuming countries. The document included a summary table, comparing 1994 versus 1993 data for iron ore production, consumption and trade for the key countries involved in the world market, as well as detailed quarterly statistics on iron ore, and iron and steel production for 21 countries. The secretariat expressed its thanks to those countries for their cooperation in providing very timely statistics. The Group considered the information extremely useful, particularly in connection with the Group's assessment of the current market situation so far in 1994.

11. In addition, a mini-questionnaire was distributed to participants in order to collect the latest statistics available and/or estimates of key data for 1994 and 1995 for those countries that had not yet provided them. Supplementary year-to-date statistics and estimates for 1994 and 1995, presenting the latest data provided by governments and industry during the session, were made available to participants at the end of the session, as an informal document called "Latest iron ore statistics available for 1994 and estimates for 1995, supplemented by data provided by delegates during the session".

12. The secretariat also informed the Group that it had focal points for the provision of iron ore statistics in 89 countries. It stressed the importance of statistical correspondents to speed up the collection of the annual and the year-to-date iron ore statistics.

C. Other institutions' activities and publications on iron ore

13. For its review of activities and publications on iron ore carried out by other institutions and in individual countries, the secretariat presented its document "Annotated bibliography on iron ore - 1994" (TD/B/CN.1/IRON ORE/14). It contained brief summaries of studies and world-wide activities in the field of iron ore and related issues, based on information available to the secretariat and material provided by UNCTAD member states and international organizations.

14. The Deputy Secretary-General of the Arab Iron and Steel Union (AISU) informed the Group that the membership of the Arab Iron and Steel Union counted more than 70 companies from 14 Arab countries. In order to meet the increasing demands from the member companies, the Union had developed a set of structures to promote joint Arab projects and to facilitate cooperation and inter-Arab exchanges notably in the fields of mining and geology, iron and steel industry, and trade. He also gave an account of the ongoing activities of his organization.

Chapter II

REVIEW OF THE CURRENT SITUATION AND OUTLOOK FOR IRON ORE

(Agenda item 4)

"Review of current situation and outlook for iron ore - 1994"
(TD/B/CN.1/IRON ORE/13)

15. The UNCTAD secretariat presented the document describing market developments in 1993 and the first half of 1994. Despite the sharp drop in iron ore consumption in the CIS republics and the slowdown of the Japanese and European economies, global iron ore demand had slightly increased in 1993, bringing the international iron ore market back into equilibrium. Consumption had only declined in Europe (east and west) and Africa. In China, Latin America, the Middle East and Asia, iron ore consumption had continued to rise. Demand for all iron ore products had remained steady and the supply of pellets and lumps had been particularly tight given the ever-growing demand from direct reduction plants. Moreover, soaring prices for prime grade ferrous scrap in 1993 had led to greater interest in primary iron products.

16. World production of iron ore had risen by 2.5 per cent in 1993. Mining activities had picked up in most major iron-ore producing countries and global output had totalled 942 million tons. The most efficient mines had operated close to capacity, and most producers had been over-booked. Again the strongest increase in iron ore output had taken place in China (+15 per cent), while the sharpest drop had been in the CIS countries (-l2 per cent). Production had also increased in Australia, Brazil, India and South Africa. The market for pellets had been booming in 1993 with plants running at full capacity. Nearly 70 million tons of pellets had been exported in that year, a rise of almost 10 per cent. At present, expansion of pelletizing capacity was under way in India and Sweden. In Venezuela a new plant had just started operations.

17. World iron ore trade had risen significantly in 1993, with total exports nearly 8 per cent higher than in 1992, reaching 398 million tons. Thanks to the strong demand for imported ores in China and fast developing regions, major iron ore suppliers had reported substantial pressure on world shipping schedules and

a marked reduction of stocks, particularly during the second half of the year. All major exporters had benefited from the favourable market conditions. Australia had been the leading world supplier in 1993, followed by Brazil; together these two countries had accounted for 57 per cent of world supply of iron ore. Among the top 10 exporters, South Africa had recorded a remarkable export growth (+30 per cent), but recoveries in export volumes had also occurred in Chile, Mauritania and Sweden, and for the first time the declining trend had been reversed in the CIS. The leading importer by far was Japan, with a share of nearly 30 per cent of world imports. Notable, however, was the fact that in 1993 the Republic of Korea had imported slightly more than Germany, and China had moved up very fast from 10th place in 1990 to 4th place among the top importers in 1993.

18. Iron ore prices had fallen for the third consecutive year. In 1993, world reference prices had been cut by 10 to 12 per cent on average. In 1994, despite the strong market conditions, iron ore prices had dropped further by 9.5 per cent for fines, and by 6 per cent for lumps; even in the case of pellets, which had been in short supply, prices had not increased. The secretariat pointed out that in 1994 some ores were 25 to 30 per cent cheaper than in 1991, even if the strength of the direct reduction market had led to higher premiums for lumps and pellets. Freight rates for iron ore had gone up in 1993, mainly because the rise in imports of iron ore and steel products in China had more than offset the lower volumes of dry cargo into Japan. The first half of 1994 had seen a big swing in iron ore rates, but at the moment they were soaring again. It was noticed that a number of combined carriers had gone to the breakers, but there had been a net growth in the Cape-size fleet. While no losses involving iron ore vessels had been reported in 1993, serious accidents had already occurred in 1994.

19. Mr. Magnus Ericsson, Raw Materials Group, Sweden, made a presentation on "The ownership structure of the iron ore industry in the 1990s". He stated that in 1975 the three leading iron ore companies, CVRD, USX and LKAB, had controlled 19 per cent of total world production. By 1993 this figure had increased to 34 per cent and CVRD was still at the top, followed by BHP and RTZ. This trend of increasing corporate concentration was unique, since in most major non-ferrous minerals and metals a deconcentration had taken place during the same period. The ten largest companies controlled almost 60 per cent of Western iron ore production. In his opinion, several factors explained this situation: (i)

the size of the industry output in both volume and value; (ii) extreme economies of scale; (iii) the use of giant intercontinental freight vessels that decreased transport costs; (iv) the geological situation, with huge deposits of higher grade ores; (v) high financial barriers to entry due to the large scale of iron ore projects etc. He also noted that some of the world's most successful iron ore mining companies were still state-controlled. In addition, the domination of the iron ore industry by steel companies had gradually weakened and there were now only four steel companies among the top ten iron ore mining companies. Looking at the geographical shifts in locus of control, he said that the North American influence over the primary industries was clearly declining, while that of Latin American companies had increased over the last two decades.

20. Concerning the iron ore industry in the CIS States, Mr. Ericsson did not believe there would be a rapid integration of the iron ore industries of Russia, Kazakhistan and Ukraine into the network of the dominant international mining groups. In his opinion, it would be very difficult to find buyers of low-grade deposits. In addition there was pressure on the present governments to keep at least a majority of the ownership and hence control of the most important mining companies. Nevertheless, company-based information was gradually becoming available from the former Soviet Union and China. He pointed out that among the top 20 companies now involved in iron ore mining, three were Chinese, three Russian, two Ukrainian and one Kazakh. The integration of the mining and metallurgical industries of the formerly centrally planned economies into the world market would initially further increase the state-controlled sector of the international iron ore mining industry. In conclusion, he stated that the largest iron ore companies were likely to become more important and powerful in the 1990s.

21. Mr. Anthony Hinder, Batelle Europe, Switzerland, made a presentation on "Developments in iron and steelmaking technologies and the demand for iron ore". He stated that world demand for iron ore was influenced by a number of interrelated factors: the medium and long-term evolution of steel consumption and production, the technologies used for iron and steel manufacture, and the availability and relative price level of competing raw materials. There had been a significant shift in steel consumption away from the traditional markets of North America, Europe and Japan towards the newly industrialized areas of Asia and Latin America, which was expected to continue over the next two decades.

The development of local iron and steel industries in these industrializing areas would also result in a considerable decline in imports of finished steel products, which also meant an even more marked shift in terms of steel production. Even if the use of electric arc furnace "mini-mills" was growing fast, he believed that the basic oxygen furnace would still be the dominant steelmaking technology in 2010, although its share of world crude steel production would decrease slightly to about 55 per cent, while the share of the electric arc furnace might reach 45 per cent in 2010. As a result, the use of blast furnace iron was expected to stagnate in the 1990s and then decline sharply early next century, as smelting reduction developed.

22. Concerning raw materials, Mr. Hinder believed that obsolete scrap might account for almost 60 per cent of total scrap supply by 2010, but pretreatment would have an impact on price. Direct reduction would be increasingly used and might account for almost 8 per cent of total primary metal consumption in 2010 compared to 2 per cent in 1990. Demand for iron ore might grow very slowly over the next two decades, due to the growing importance of scrap-based steelmaking routes. Regarding iron ore products, all smelting reduction and most direct reduction processes currently operating required lumps or pellets, except the Fior process, which used fines, the Finex process (a variant of Corex) and the iron carbide process. In terms of quality, the emerging new processes were comparable to established ones, in that they required high iron content, and low gangue and impurities.

23. Dr. Detlev Schelebusch, Manager of Technology, Lurgi Metallurgie GmbH, Germany, made a presentation on "Fine ore reduction: raw materials, energies and other criteria for process selection". Recalling that hot metal production via the coke oven and blast furnace route was highly capital-intensive and had continuing environmental problems, and given the growing significance of direct reduction (DR) processes, he said that ore suppliers had to consider the prerequisites for a DR feedstock and adapt to the market, as should plant designers and suppliers of technology. Competitive pressures would force DR plant builders to offer technologies that used low-cost, widely available iron ore fines instead of costly pellets and lump ore. He also believed that integrated steelmakers would expand their use of DR as a means of balancing their metallics usage, either as a sweetener for their blast furnaces or as a scrap substitute. From the technical point of view, processes must use low-cost raw

materials such as fines and unsized average-quality coal to reduce direct capital and operating costs, and avoid the problems of availability and technical complexity. Processes must also be environment-friendly.

24. He stated that DR processes operated with all three types of ore: pellets, lump and fines. However, the use of fines would depend on the type of the reactor. Only one commercial plant was operating (in Venezuela) with a feedstock consisting of 100 per cent fines but the major drawback was the high energy consumption. His company, after 20 years of research and development, had developed two processes of ore fines reduction, the Circofer and the Circored. These processes could produce directly reduced or hot briquetted iron with either coal or gas as reductant. The ore requirements to be met related to the particle size. The ore size for the Circofer process should range from 1 to 0.03 mm and for the Circored process from 1 to 0.1 mm. In addition, a low-cost micropelletizing process had been developed in which fines were granulated to a processable particle size. In this way, two new flexible processes were available which could directly use the bulk of fine ores without any cost-intensive upstream material preparation.

25. A lively exchange of views followed the above presentations. During the discussion, the experts expressed satisfaction at the topics chosen by the guest speakers since they had prompted a constructive debate. Several delegations thanked the secretariat and noted with appreciation the quality and timely distribution of the substantive documents, as well as the efficient organization of the session.

26. Opening the round table on developments in individual countries and the activities of major iron ore producing and consuming companies, Mr. Ahmed Ould Sidi Aly, Marketing Division Manager, Société Nationale Industrielle et Minière (SNIM), Mauritania, made a presentation on the M'Haoudat Project: assurance of continuity. The project had been inaugurated in April 1994, to produce annually 6 million tons of high grade ores during the next 20 years. He also informed the Group about the current and future iron-ore mining activities in his country.

27. Mr. Luiz V. Aguilar, Marketing Coordinator, CAEMI International, Brazil, presented a film on the development and completion of the Expansion Project of Pico Mine, operated by its affiliated company, Mineracoes Brasileiras Reunidas

(MBR). This project had started operations in September 1994, and was a first step in MBR's long-term expansion programme. It would enable the annual production capacity of Pico Mine to be increased to 11 million tons.

28. Experts from governments and industry reported on developments in their national markets and the activities of companies. In particular, the representatives of:

[To be completed]

ChapterIII

ORGANIZATIONAL MATTERS

A. Opening of the session

29. The third session of the Intergovernmental Group of Experts on Iron Ore was opened on 24 October 1994 by Mr. Tom Keating, Chairman of the second session.

B. Election of officers

(Agenda item 1)

30. At its 5th (opening) meeting, on 24 October 1994, the Intergovernmental Group of Experts on Iron Ore elected Mr. Jacques F. Astier (France) as Chairman and Ms. Zonia Osorio de Fernández (Venezuela) as Vice-Chairman-cum-Rapporteur.

C. Adoption of the agenda

(Agenda item 2)

31. At the same meeting, the Group adopted the provisional agenda for its third session (TD/B/CN.1/IRON ORE/11) as follows:

1. Election of officers
2. Adoption of the agenda and organization of work
3. Review of iron ore statistics and of other institutions' activities and publications on iron ore
4. Review of the current situation and outlook for iron ore
5. Provisional agenda for the fourth session of the Intergovernmental Group of Experts on Iron Ore
6. Other business
7. Adoption of the report to the Standing Committee on Commodities.

D. Provisional agenda for the fourth session of the Intergovernmental Group of Experts on Iron Ore

(Agenda item 6)

32. The Group agreed on the following substantive items for inclusion in the provisional agenda for its fourth session:

- Review of iron ore statistics and of other institutions' activities and publications on iron ore;

- Review of the current situation and outlook for iron ore.

33. Taking into account the provisions already made under the UNCTAD calendar of meetings, the Group proposed that its fourth session should be held from 25 to 27 October 1995.

E. Other business

(agenda item 6)

(To be completed)

F. Adoption of the report to the Standing Committee on Commodities

(Agenda item 7)

[To be completed]