ANOTATED BIBLIOGRAPHY ON IRON ORE – 1995

Prepared by the UNCTAD secretariat
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INTRODUCTION

1. Since 1989, in response to the request made by the Intergovernmental Group of Experts on Iron Ore - (IGEIO), the UNCTAD secretariat has been preparing an annual version of the "Annotated bibliography on iron ore", with a view to providing information about current worldwide activities and publications on iron ore and related matters.

2. For the preparation of the 1995 version of this bibliography, all States members of UNCTAD as well as concerned international organizations, were requested to provide copies of recent studies and any other relevant information on iron ore, iron and steel matters. The information provided herewith is based on the replies received as of 10 July 1995, and complemented with information and studies available in the UNCTAD secretariat on iron ore and steel issues, considered to be of interest to iron ore producers and consumers. It focuses on studies and activities carried out during 1994 and the first half of 1995.

Part I

RELEVANT ACTIVITIES AND STUDIES OF INTERNATIONAL ORGANIZATIONS

1. UNCTAD

1.1 Commodities Division

3. In fulfilling its main role of strengthening international co-operation on commodities, UNCTAD’s main activities in the field of ferrous minerals and metals have been linked to the work of the Intergovernmental Group of Experts on Iron Ore (IGEIO). The IGEIO is a forum set-up within UNCTAD which provides for a regular producer-consumer dialogue on iron ore matters. Since 1986, the Expert Group has been active in improving market transparency, reviewing and monitoring the market situation and outlook for iron ore, and facilitating closer co-operation through regular exchanges of views and information on issues of concern to the iron ore industry worldwide. Functioning as the only study-group type of forum exclusively devoted to iron ore, the IGEIO has been attracting at its annual sessions experts who are policy-makers in government and industry from about forty countries representing producers, consumers, traders, and relevant international organizations. Participation in the IGEIO’ sessions is open to representatives from all UNCTAD member countries and the participation of industry is highly encouraged. The annual sessions of the Expert Group are held for three days, normally in October at the Palais des Nation in Geneva.

1.1.1 Review of the current market situation and outlook for iron ore - 1995

TD/B/CN.1/IRON ORE/17, Geneva, July 1995
For general distribution. Issued in the six United Nations official languages (Arabic, Chinese, English, French, Russian and Spanish).
4. This report describes world iron ore market developments which took place in 1994 and the first half of 1995. It is mainly intended as a background document to stimulate the annual discussions among iron ore producers and consumers involved in the work of UNCTAD’s Intergovernmental Group of Experts on Iron Ore. Featured are recent developments influencing demand for iron ore such as the world iron and steel production, the ferrous metallics market and iron ore stock movements. The supply capacity at the regional and global levels, as well as the financing and investments plans of the iron ore mining industry, are also dealt with. The report examines international trade issues relating to the volume and value of international trade, prices, freight rates and transportation costs for iron ore. Technological and environmental issues are also addressed, as well as the short-term outlook for the iron ore market.

1.1.2 Annotated bibliography on iron ore – 1995
TD/B/CN.1/IRON ORE/18, Geneva, July 1995
For general distribution, in all United Nations official languages.

5. The present bibliography has been issued annually since 1989 for submission to the annual sessions of the UNCTAD’s Intergovernmental Group of Experts on Iron Ore. Its main purpose is to share information among the iron ore community as regards relevant studies and activities currently undertaken worldwide by international institutions and in individual countries on iron ore issues. It provides summaries of major technical and economic conclusions of specific studies and activities in the field of iron ore. A directory containing the addresses of relevant organizations is also included, with a view to facilitating the acquisition or further details concerning the publications and/or events listed.

1.1.3 Environmental legislation for the mining and metal industries in Asia
UNCTAD/COM/40, Geneva, 1994
For general distribution, in English only.

6. This report gives an overview of government regulations concerning environmental management in the mining and metals industries of India, Indonesia, Malaysia, Papua New Guinea, Philippines, Thailand and Viet Nam.

1.1.4 State participation and privatization in the minerals sector
TD/B/CN.1/GE.2/2, Geneva, August 1995
For general distribution, in all United Nations official languages

7. This report examines the main issues which arise with regard both to State participation in, and privatization of (non-fuel) mineral sector activities. It also reviews the major events which have occurred in this sector over the period 1993-95.

1.2 Division for Data Management

1.2.1 Iron ore statistics 1987-1994
TD/B/CN.1/IRON ORE/17, Geneva, July 1995
For general distribution in all United Nations official languages.
8. This compendium is issued under the UNCTAD regular statistical programme on minerals and metals. This publication has appeared annually since 1984, and provides detailed iron ore statistics to complement the annual market review. The world statistical series cover the last 8 years and is based on the replies received from governments to the UNCTAD annual questionnaire on iron ore. It has 28 tables and includes data for production, consumption and trade of iron ore and ferrous metallics, as well as crude steel production.

1.2.2 Trust fund project on iron ore information.

9. Following the suspension of activities of the Association of Iron Ore Exporting Countries (APEF) as of 1 June 1989, the Governments of certain countries decided to establish a trust fund project on iron ore information administrated by UNCTAD. The purpose was to continue the collection and dissemination of data relating to iron ore mostly based on industry sources, formerly undertaken by APEF. This project is financed by voluntary contributions from the Governments of Australia, Canada, India, Japan, United States, Venezuela and the European Commission, as well as by the revenues from the sales of publications. The future of this project is decided upon every year depending on the total amount of contributions. The following publications were issued under this project:

- **Iron Ore Statistics**
  This is a tri-lingual publication (English, French and Spanish), issued bi-annually in July and November since 1989.

- **Market Report on Iron Ore**
  Published in English only, issued annually in March since 1990.

1.2.3 Monthly Commodity Price Bulletin

10. This monthly publication is available for annual subscription, which also covers the occasional publication of a supplement. The explanatory notes, descriptions and sources are published in English, French and Spanish. The bulletin contains historical series of monthly, quarterly and annual average prices for the current and past three years for all major commodities including minerals, ores and metals, of which iron ore.

1.2.4 UNCTAD Commodity Yearbook - 1994

11. This annual publication provides desegregated data at the world, regional and country levels for trade and consumption in selected agricultural primary commodities and minerals, ores and metals including iron ore. Basic tables are presented from both the commodity and the country point of view, to serve as background material to international commodity discussions and negotiations in
UNCTAD, as well as to be of practical use to governments, international organizations, universities and other research institutions with an interest in international commodity policy issues.

1.3 Services Division: Shipping

12. The UNCTAD’s Standing Committee on Developing Services Sectors was established with a view to fostering competitive services sectors in developing countries. Shipping remains a priority area. A number of activities including specialized reports, technical assistance projects and training programmes, in the fields of shipping, ports, maritime legislation and multimodal transport are carried out and certainly are of interest to those involved in the seaborne trade of iron ore. A selection of the most recent publications includes:

1.3.1 Review of maritime transport 1993
TD/B/CN.4/37, Sales No. E.94.II.D.30, Geneva, 1994
Available in all six official languages.

13. This annual report identifies the main developments in world maritime transport, providing relevant analytical and statistical data. It examines major changes in the world fleet, shipbuilding, freight markets, and multimodal transport. It includes an overview of the demand for global shipping services and developments in international seaborne trade. Emphasis is given to the development of the merchant marines in developing countries as compared with other groups of countries. The report also highlights the continued disparity between developing country cargo generation and fleet ownership.

1.3.2 Changes in national practices covering shipper/ocean carrier relations
UNCTAD/SDD/SHIP/2, Geneva 1995
Available in English, French, Spanish and Arabic

14. This report presents an overview of changes in national practices covering shipper/ocean carrier relations, and changes in shipper requirements regarding the quality and conditions of shipping and port services. It presents examples of actual and specific problems faced by shippers and of the way existing institutions are trying to cope with new developments. It shows the divergences and similarities in the approaches applied to finding solutions to the transport problems facing the sippers’ community.

1.3.3 Technical cooperation and human resource development in shipping, ports and multimodal transport
TD/B/CN.4/47, Geneva 1995
Issued in all six official languages.

15. This document describes the technical cooperation and human resource development activities undertaken by UNCTAD in the area of shipping, ports and multimodal transport. Its purpose is to draw some lessons from the practical experience gained from working in this field which could help improve the effectiveness of these activities in the future.
1.3.4 **Fostering competitive multimodal transport services**  
Issued in all six official languages.

16. As the links between maritime transport, port facilities and land transport have been multiplied by the growing use of containers and multimodal transport (MT) services, the scope of competence of UNCTAD has been expanded to embrace the entire spectrum of new developments in this sector. The effect of liberalization of services and increased competitiveness, the evolution of MT operations into physical distribution, multimodal logistics and total transport services, as well as the increasing need for consideration of environmental, safety and quality of services issues, are at the cutting edge of mode

2. OTHER UNITED NATIONS ORGANIZATIONS OR SPECIALIZED AGENCIES

2.1 **Economic Commission for Africa (ECA)**

17. In 1994, the UN-ECA has not undertaken any particular study on iron ore or related issues. Nevertheless, the ECA is assisting the Government of Congo to make an assessment concerning the possibilities to exploit the Zanaga iron ore reserves. The idea is to find out whether it would be feasible to develop this mine and set-up an integrated iron and steel plant in Niari.

2.2 **Economic Commission for Europe (ECE)**

18. The United Nations Economic Commission for Europe organizes annual meetings, seminars, study tours and undertakes studies in the field of iron and steel, as part of the activities of its Working Party on Steel. Its main studies and activities in 1994 and so far in 1995 were:

2.2.1 **The steel market in 1993 and prospects for 1994**  
ECE/STEEL/85, Sales No. E.94.II.E.28, Geneva, 1994  
Available in English, French and Russian.

19. This annual report has been published since 1953. In 1994, its format has been changed with a view to improving its scope and to ensure the earliest possible availability of information on national and international trends in the steel market, in the iron and steel industry and in its raw material supply situation. It focus on past developments and prospects for the steel market in market economy countries as well as in the European transition countries.

2.2.2 **Structural changes in consumption and trade in steel**  
ECE/STEEL/88, Sales No. E.94.II.E.42, Geneva, 1994  
Available in English, French and Russian

20. This study identifies and explains important changes and their consequences for consumption and trade in steel from 1980 to 1993. It provides an overview
and analysis of the relationship between steel consumption, production and trade. It also examines the effect of structural changes and technological innovation for the world steel industry. A chapter is dedicated to international trade in steel products and presents detailed data as regards the structure of steel exports, imports and trade balances of regions and countries.

2.2.3 Other ECE activities

21. Following the Meeting of Experts on the Steel Industry and the Environment held in 1994, the UN-ECE has been very active in this field. A seminar on "Steel Industry and Recycling" was held in April 1995 in Dusseldorf Germany, to address issues related to the role of recycling in the steel industry. Another seminar on "Processing, Utilization and Disposal of Waste in the Steel Industry" is schedule to take place in June 1996 in Hungary.

22. With a view to promote the process of economic reforms in the countries in transition, the UN-ECE organized a "Workshop on the restructuring of the iron and steel industry of Ukraine" which was held in December 1994 to discuss possibilities and opportunities for the Ukrainian steel sector.

23. At the invitation of the Government of the Russian Federation, the UN-ECE jointly with the Russian Federation Committee of Metallurgy is organizing a "Study tour of the Russian iron and steel industry". The tour is to be viewed in the context of the changes which have occurred in the Russian steel industry during recent years. It will take place from 17 to 23 September 1995.

2.3 Economic Commission for Latin America and the Caribbean (ECLAC)

24. During 1994, the UN-ECLAC had not carried out any study on iron ore or related matters. ECLAC focused its attention on industrial restructuring in Latin America at a global level. Nevertheless, ECLAC maintains close collaboration with ILAFA (Latin American Iron and Steel Institute) whose headquarters are also located in Santiago, Chile, with a view to following regional developments in this field.

2.4 Economic and Social Commission for Asia and the Pacific (ESCAP)

25. In 1994 ESCAP has not undertaken any specific studies or activities on iron ore. However, since 1984, ESCAP has been issuing a series of recurrent publications entitled "Atlas of Mineral Resources of the ESCAP Region". These Atlases provide, inter alia, relevant information and data on iron ore deposits in a form of either short overview of the major iron ore deposits or detailed description of their geology, tectonic setting and status of their development in support of mineral-based industry. As of today, ten individual country volumes have been produced within this series covering chronologically the following countries: Malaysia, Solomon Islands, the Republic of Korea, New Zealand, Sri Lanka, Viet Nam, Lao PDR, Bhutan, Nepal and Cambodia. Two additional volumes are envisaged to be produced in the course of 1995 which will cover Afghanistan and Myanmar, and which will also contain specific sections on iron ore deposits and status of their mineral exploration and development.
2.5 United Nations Economic and Social Commission for Western Asia (ESCWA)

26. The ESCWA has not published any studies or reports on iron ore or relevant to iron and steel industry during 1994. However, ESCWA Regional Advisors on Industry and Science & Technology continue to provide technical and advisory assistance to develop the existing industries in the region, including the iron and steel industry in the member states.

2.6 United Nations Division for Environmental Management and Social Development, New York

27. This Division has not conducted recent studies on iron ore. Nevertheless, a publication entitled "Chronicle of the United Nations Mineral Resources Exploration in Developing Countries 1958-1993" was issued in 1994. As the United Nations has been conducting mineral surveys in developing countries for more than 30 years and has executed more than 400 mineral projects worldwide, this report provides basic geological information that investors can use to identify mineral targets for further exploration and development.

2.7 United Nations Environment Programme - (UNEP)

28. UNEP’s Industry and Environmental Programme Activity Center (UNEP IE) was established in 1975 in Paris to bring industry, governments and non-governmental organizations together to work towards environmentally sound forms of industrial development. To achieve this goal, UNEP IE provides access to practical information and develops cooperative on-site actions. To promote transfer of information and sharing of experiences, it has developed various activities such as the preparation of technical reviews and guidelines, training activities, query response service, computerized clearinghouse etc.

29. UNEP IE has long placed high priority on the iron and steel industry. A number of publications covering the environmental aspects of the steel industry have been enthusiastically received by those involved in industrial environmental management in this sector worldwide. In addition, a series of seminars and workshops, and occasionally arranged technical co-operation on the subject. Past publications have been listed in previous versions of this bibliography. The most recent document is the "Company Environmental Reporting" (UNEP IE Technical Report No.24) issued in 1994.

30. UNEP IE is currently setting up an in-house database on countries’ environmental standards and guidelines for industrial discharges. Since the collected information will also be published as sectorial monographs, the draft volume covering the iron and steel sector is now distributed to relevant experts worldwide for comments.

2.8 United Nations Development Programme (UNDP)

31. UNDP has not issued any particular publication on iron ore mining or in the iron and steel field in 1994. However, UNDP continues to finance several projects related to the development of iron ore mining and the iron and steel
industry in a number of developing countries, as well as in the countries in transition of Eastern Europe.

2.9 United Nations Industrial Development Organization (UNIDO)

32. No studies or activities dealing specifically with iron ore were undertaken by UNIDO in 1994. Traditionally its activities relate to the elaboration and adaptation of technologies for processing of locally available metallurgical minerals or ores; assistance in the establishment, management and operation of new mines and plants; provision of expertise for rehabilitation, restructuring, modernization and efficient operation of existing plants; application of appropriate technologies and equipment, including technological consulting, product development, and introduction of managed and computerized systems; improvement of product-mix, harmonized to the national, regional and international demand; consulting on management and cost accounting of metallurgical and metal transformation plants; and energy conservation and environmental considerations.

2.10 International Trade Center UNCTAD/WTO (ITC)

33. ITC’s present programmes do not include any specific activity related to iron ore.

2.11 International Labour Organization (ILO)

34. In 1994 no specific activity related to iron ore was carried out by this organization. ILO continue to carry out a number of activities related to various economic, social and labour problems in the iron and steel industry following requests made by its Iron and Steel Committee. As a traditional and priority area of activity, ILO is continuing its work on collection, analysis and dissemination of worldwide statistical information on employment, hours of work, and wages in a number of sectors including mining and the iron and steel industry. This information is published annually in the Year Book of Labour Statistics.

3. OTHER INTERNATIONAL ORGANIZATIONS

3.1 World Bank

35. The most recent publications by the World Bank relating to iron ore, iron and steel were the following:

3.1.2 Commodity markets and the developing countries

36. This quarterly review discusses recent developments in 34 primary commodity markets including iron ore and steel, and their likely impact on prices. Featured are production, consumption, and trade patterns to pinpoint why some commodities may thrive while others may falter. Each issue provides succinct, yet substantive, assessments on the current market climate for raw materials.
3.2 World Trade Organization (WTO)

37. The WTO has not carried out particular studies or other activities in the field of iron ore and iron and steel.

3.3 Organization for Economic Cooperation and Development (OECD)

38. The most recent OECD’s publications in the field of iron and steel and related steelmaking materials were:

3.3.1 The Steel Market in 1994 and Outlook for 1995 and 1996
Sales No. ISBN 92-64-14288-6, Paris, 1995
Available in English and French.

39. This report provides an analysis of the steel market, pointing out the main features and market developments in 1994, as well as the outlook for 1995 and 1996. It covers overall aspects related to steel supply, demand, trade and capacity, as well as developments in the steel market by area for both OECD and non-OECD countries. It also contains brief analyses and data on employment in the steel industry for the OECD countries.

3.3.2 The Iron and Steel Industry in 1993
Bilingual publication in English and French.

40. This annual publication is a statistical compendium presenting trends in the iron and steel industry in 1993 for OECD countries, including Mexico, which joined the Organization in 1994, and for the Republic of Korea. The publication contains 30 statistical tables showing steel production, consumption and trade, as well as other indicators of activity such as employment levels, investment expenditures by sector and by country, export prices and domestic prices. Information for certain iron and steel products and related steelmaking raw materials such as iron ore, manganese ore, coke and ferrous scrap, is also provided.

3.3.3 "The steel industry in transition: Financial and privatization issues"
Available in English and French.

41. This document is a synthesis report on a seminar. It provides an overview and analysis of the major issues addressed at an October 1993 seminar on steel organized by the OECD with the Central and Eastern countries and the New Independent States of the former USSR. These issues include the cost and financing of steel industry adjustment programmes in the OECD and non-Member areas and the issues to be addressed in privatizing steel facilities.
3.4 European Commission (EC)

42. The Commission for the European Union did not publish any specific study on iron ore in 1994. However, the EU’s programme for steel for the first half of 1995 briefly reviews market developments for the steel-related raw materials among them iron ore, coke and scrap.

43. The statistical office for the European Union, EUROSTAT, located in Luxembourg, publishes regularly detailed statistical information on iron and steel for its member countries. The publications are multi-language (seven languages) and can be purchased or obtained through subscription.

3.4.1 Iron and Steel Yearbook - 1994

44. This publication provides yearly statistics on the structure and the economic situation of the EU’s iron and steel industry. It includes data on employment, size of enterprises, plants, crude steel, iron and scrap balances, production of iron ore, pig iron, crude steel and finished steel and products, consumption of raw materials, external trade in scrap, etc.

3.4.2 Iron and Steel Monthly - with Quarterly Supplement

45. This publication presents the European Coal and Steel Community (ECSC) steel situation at a glance, including a monthly index of production of the Community’s iron and steel industry, pig iron production, production and trade of steel products, as well as consumption and receipts of scrap.

3.5 Common Fund for Commodities (CFC)

46. The Common Fund for Commodities started its operations as an international financial institution in 1989. It has a membership of 105 States plus the European Union. Under its second account, the Fund may make loans and grants for the financing of development measures in the field of commodities aimed at improving the structural conditions in markets and at enhancing the long-term competitiveness and prospects of particular commodities. One of its unique features is that it finances projects sponsored by International Commodity Bodies (ICBs) which are commodity-focused rather than country-focused.

47. Its Annual Report presents a general economic assessment of the ore minerals sector, but the Common Fund has never carried out any study or project related to iron ore and/or steel, for the reason that to-date, no International commodity Board (ICB) in this commodity sector has applied for designation to the Fund.

3.6 International Iron and Steel Institute (IISI)

48. The IISI is a non-governmental, non-profit research organization dealing with various aspects of the international steel industry, including its raw materials. IISI work is carried out through seven standing committees.
related to iron ore is the Committee on Raw Materials which has a membership composed of companies from 21 steel-producing countries.

49. In 1995, the annual session of the Committee was held in South Africa. The meeting was followed by plant, port and mine visits. It discussed the short range outlook for the supply and demand of iron ore and steelmaking raw materials. It approved for publication the study on "The World Market for Iron Ore" which covers present and future (to the year 2005) supply and demand for iron ore.

50. A study has been started on "Scrap and the Steel Industry" which will investigate the present and future availabilities and requirements of scrap, including of alternative metallic inputs like DRI or granulated pig iron. Special emphasis is to be placed on the economic and metallurgical aspects of preparing and using recycled steel products. Also inscribed in the work programme is a study on "Coke and its Alternatives" which is to examine the volume, state and age of coke-making capacities, together with the use of other fuels than coke in ironmaking.

3.7 Latin American Iron and Steel Institute (ILAFa)

51. ILAFa remains the main institution to promote the iron and steel industry of Latin America. Among its activities a major event is the Annual Congress of the Latin American Iron and Steel Industry. In 1994, the Congress was held in Santiago, Chile and in 1995 it will take place from 17-20 September in Cartagena de Indias, Colombia.

52. ILAFa also organizes technical seminars, undertakes studies and publishes regularly detailed statistics on the Latin American iron ore, iron and steel industry. In addition to Siderurgia Latinoamericana, its monthly technical review, ILAFa’s most recent publications were:

3.7.1 The Latin American iron and steel industry in 1993/94 and its prospects
ILAFA, Santiago, 1994 Bilingual: Spanish and English

53. This annual study analyses the main world economic developments as well as the economic situation in each Latin American country, and its linkage with the regional iron and steel industry and factors influencing the production, trade, investments and the overall world steel market situation.

3.7.2 Statistical yearbook of steelmaking and iron ore mining in Latin America
ILAFA, Santiago, 1995 Bilingual: Spanish and English

54. This annual publication is also available on diskettes. The latest edition presents statistical series for the period 1989-1993 for Latin American countries on production, consumption, imports, exports and prices of steel and raw materials. It also provides data on employment and investments made by the Latin American iron and steel industry.
3.7.3 **The Latin American Iron and Steel Directory – 1993**  
ILAFA, Santiago, 1994  Bilingual: Spanish and English

55. This is the 10th edition of this useful publication which contains updating information and the list of companies, names of directors and member of Executive Boards, kind of products and services offered by the iron and steel industry in Latin America, including the iron ore and coal mining industries, ferro-alloys, equipment suppliers, traders and institutions dealing with iron and steel issues.

3.8 **South-East Asia Iron and Steel Institute (SEASI)**

56. SEASI is a professional technical institute representing the iron and steel industries in South East Asia. It was created in 1971 under the auspices of the United Nations Economic Commission for Asia and the Far East. SEASI organizes conferences, seminars and study tours in the region and also provides information and services to its members. It publishes monthly newsletters, quarterly journals, and an annual directory. The proceedings and technical papers presented at conferences and seminars are also usually published.

57. In 1995, the SEASI Annual Conference was held in May in Penang, Malaysia and focused on "Recent Development of Rolling and Following Process Technology and/or Application of Steel Products". SEASI 1995 seminar will take place in Singapore from 6-7 November 1995, and its main topic will be "Cost saving through the improvement of operation technology for long products".

3.8.1 **SEASI Steel Statistical Yearbook – 1993**  
SEASI, Manilla, October 1994

58. This publication appears now for the third consecutive year. It presents detailed statistics for the period 1991-93 on steel production, consumption, and trade by products for the SEASI’s ten member countries.

3.9 **Arab Iron and Steel Union (AISU)**

59. AISU’s main objective is to facilitate close and effective cooperation between its member countries with a view to furthering the development of the iron and steel industry in the Arab countries. To this end, AISU organizes congresses and seminars on technical steel issues. AISU publishes a monthly review, Arab Steel, with technical papers from the various seminars and other relevant articles. Its documentation center also issues a monthly Steel information service, summarizing world steel news for its members.

60. For this year, AISU is organizing an international symposium on "Prospects for Future Developments of Steel Mini-Mills". The event will take place from October 23-25 in Damascus, Syrian Arab Republic. It will focus on the present situation of steel mini-mills, their role in the future, as well as their impact on iron and steel projects and, finally the obtained results in comparison to the integrated steel plants.
3.9.1 Arab Iron & Steel Statistics

61. This handful statistical publication was issued for the first time in 1994. Detailed statistics are presented for the Arab countries for the period 1989-1993. It provides data for production, consumption and trade for iron ore, pellets, sponge iron and steel.

3.10 Arab Industrial Development and Mining Organization - (AIDMO)

62. This organization has a new structure resulting from the merging of the former Arab Industrial Development Organization (AIDO), the Arab Organization for Standardization and Methodology (ASMO), and the Arab Organization for Mineral Resources (AOMR).

63. In 1994, AIDMO’s main activity related to iron ore was to monitor, in collaboration with some Arab States, the completion of a pre-feasibility study of a project for the exploitation of iron ore at the Al-Awaj deposit in Mauritania and for the production of pellets from the extracted ores. Practical steps have been taken to start implementation of the second phase of the study (technical and economic feasibility study of the project). The aim of the project is to produce annually 5 Mt of high-grade DR-pellets with a view to meeting the needs of the Arab iron and steel industry. The first phase of the study indicates that the Al-Awaj deposit has reserves of magnetite ores sufficient for 20 years of open-mining extraction at a rate of about 12 Mt per year.

3.11 African Iron and Steel Association (AISA)

64. The African Iron and Steel Association, set-up in 1991, is expected to contribute to the implementation of the "Industrial Decade for Development in Africa" and the "Priority Programme for African Economic Revival" guided by the Lagos plan of action. Its membership is composed of government and industry representatives from Algeria, Angola, Congo, Ethiopia, Ghana, Mali, Mauritania, Nigeria, Senegal, Togo, Tunisia, Zambia and Zimbabwe. The headquarters of AISA is in Nigeria, where the first General Assembly held in 1992 elected its Secretary-General.

3.12 American Iron Ore Association (AIOA)

65. This Association, which represents the iron ore industry of Canada and the United States, does not publish studies or articles on iron ore. However, the AIOA issues a comprehensive collection of detailed iron ore statistics of the iron ore industry in Canada and the United States. The most recent issue in this series is: Iron Ore 1994, published in May 1995.
Part II

RELEVANT STUDIES AND PUBLICATIONS COMMUNICATED BY GOVERNMENTS

Bolivia

66. The Government of Bolivia provided a copy of the study carried out by ALADI (Asociacion Latinoamericana de Integracion) in 1994, on a proposal for a joint-project for the Formulation of an Iron and Steel Complex for Bolivia and Uruguay. This proposal has been put forward under a special program to assist the countries with less advanced economic development in the region, with a view to promote the complementarily and integration of the iron and steel sector. Two options are being considered; first, to build-up a DRI plant in Nueva Palmira, Uruguay which will use Bolivian gas and ores extracted at Mutum; or to produce DRI in Bolivia near the Mutum’s deposits and produce ordinary and special steels in Nueva Palmira.

67. Regarding the development of the El Mutun iron ore deposits, a study was undertaken by Corporation Minera de Bolivia. In 1992 the Empresa Minera de Mutum was created to prepare the conditions for the exploitation, concentration and commercialization of Mutum ores.

Canada

68. From Natural Resources of Canada, the UNCTAD secretariat has received two relevant publications in 1995:

Canadian Mines: Perspective from 1994 (MR 238)

69. This report presents an assessment of the future supply capability from resources in the ground for some of the major mineral commodities produced in Canada. Its purpose is to determine whether resources are being developed for production at rates sufficient to maintain Canada’s position as a major supplier of mineral commodities.

Mining and Mineral Processing Operations in Canada (MR 239)

70. This report is a compilation of information relating to mines and processing facilities in Canada. It lists significant information concerning Metal Mines and Processing Plants, including the name of the operator, location of mines, plant capacity, processes, products and other details of special interest.

Congo

71. The Ministry of Industrial Development, Energy and Mines of Congo, has informed that any study was carried out about iron ore mining, neither related to the development of the iron and steel sector in this country since 1984.
Madagascar

72. The Government of Madagascar informed that until now iron ore has never been exploited in this country. Any particular study was undertaken concerning the iron ore reserves in Madagascar in 1994/95. The most important iron ore deposits are located at Soalala (Mahajanga). A pre-feasilibility study about this deposit was carried out during the 1988-90 period, but no other decision has been taken.

Morocco

73. The Government of Morocco provided a statistical document containing detailed data for trade of iron ore and iron and steel products in this country for the years of 1993 and 1994.

Mexico

74. The Instituto Nacional de Estadistica, Geografia e Informatica of Mexico sent to the UNCTAD secretariat, the publication Canacero – Ten years of iron and steel statistics. It provides statistical data and several indicators pertinent to the Mexican iron and steel industry for the period 1984-1993.

Thailand

75. The Department of Mineral Resources of Thailand reported on the latest developments regarding the iron and steel industry in the country. Thailand is only a small iron ore producer because no large iron ore deposits have been found. Due to the shortage of scrap and the rising demand for high quality metallics, direct reduction technology has been introduced to the steel industry during the past 3 years but for economic reasons decisions concerning the construction of DRI plants have not been taken. Apparent steel consumption exceeded 4 Mt in 1994, and production of semi-finished steel products amounted to 1.5 Mt. Demand for steel tends to increase substantially in the future due to the growth of the country’s economy.

Venezuela

76. The Ministry of Energy and Mines of Venezuela provided information concerning the venue of the "IX Latin American Congress of Geology", which will take place in Caracas, Venezuela from 5 to 8 November 1995. This scientific event will not only provide a forum for discussions regarding the current geological and mining activities in Latin America and the Caribbean, but it will also promote technic-cooperation projects with North American and European geological researchers.
Part III

SUMMARIES ON SPECIFIC TOPICS

A. Iron ore mining capacity and export capabilities

77. The study published in June 1995 by the International Iron and Steel Institute, "The World Market for Iron Ore" investigates trends in supply of and demand for iron ore over the period to the year 2005. The assessment of future trends for iron ore demand is based on the steel demand forecasts made by the IISI in October 1994. The analysis of future supply is based on a questionnaire sent to the world’s principal iron ore mining companies.

78. It concludes that total iron ore production capabilities are likely to rise to 975 Mt in the year 2000 (5.5% higher than in 1993), and a further increase will bring production capabilities to 982 Mt by 2005. The bulk of expansion will consist of fines which will account for 38% of total supply in 2005 compared with 32% in 1993.

79. It foresees that world iron ore requirements could reach 950 MT in 2005, but the needs of iron ore between 1995 and the year 2000 would increase at the relatively modest rate from about 855 Mt in 1995 to 880 Mt in the year 2000.

Table 1 : Iron Ore Export Capability, by Type of Product
(million metric tons, saleable product, natural moisture)

<table>
<thead>
<tr>
<th>PRODUCT TYPES</th>
<th>1995</th>
<th>2000</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fines</td>
<td>224</td>
<td>250</td>
<td>252</td>
</tr>
<tr>
<td>Concentrates/Pellet Feed</td>
<td>78</td>
<td>76</td>
<td>76</td>
</tr>
<tr>
<td>Lump Ore</td>
<td>76</td>
<td>83</td>
<td>83</td>
</tr>
<tr>
<td>Pellets</td>
<td>63</td>
<td>67</td>
<td>66</td>
</tr>
<tr>
<td>TOTAL ALL PRODUCTS</td>
<td>440</td>
<td>476</td>
<td>477</td>
</tr>
</tbody>
</table>

Source: International Iron and Steel Institute, 1995

B. State participation and privatization in the minerals sector

80. The process of privatization has been an important aspect of economic reform worldwide, especially in developing countries and countries in transition to a market economy. In recognition of this importance, and because various issues of privatization are specific to the mineral sector, an Ad Hoc Group of Experts on State Participation and Privatization in the Minerals Sector will meet under UNCTAD auspices, to consider various aspects such as (i) the rationale for State participation and for privatization; (ii) the conditions and requirements
for privatization, policies used to achieve and sustain the privatization process, and problems encountered; and (iii) appropriate roles for the public sector, the private sector and the international community in this domain.

81. Participants will include a number of invited experts from countries with a significant mineral sector with national or international experience in policy-making related to the organization of the mineral industry. This Group, will meet in Geneva from 26-27 October 1995, immediately after the annual session of the Intergovernmental Group of Experts on Iron Ore.
ANNEX

DIRECTORY OF RELEVANT INTERNATIONAL ORGANIZATIONS

For inquiries and acquisition of the publications listed in this bibliography, please contact directly the appropriate organization:

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