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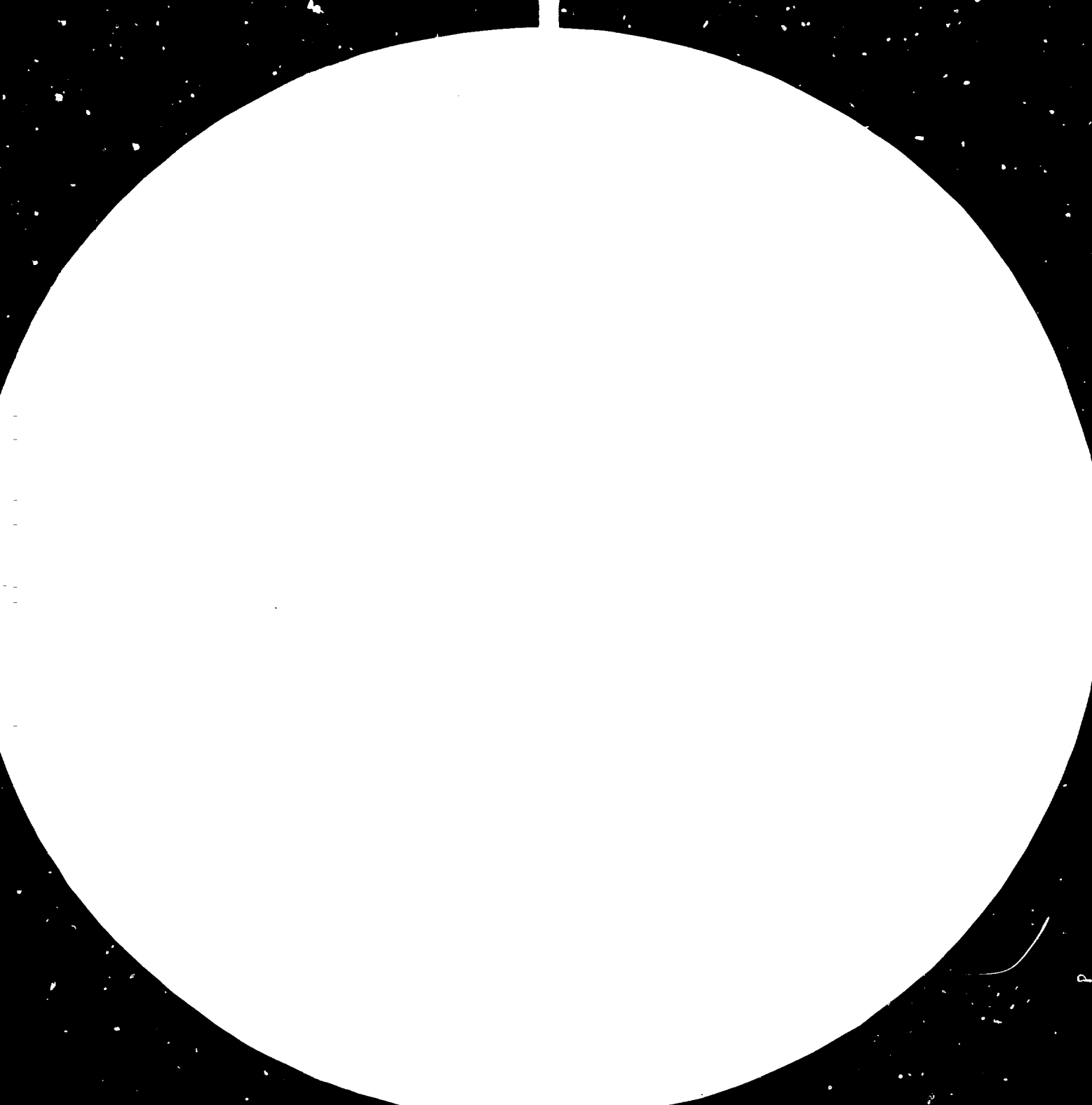
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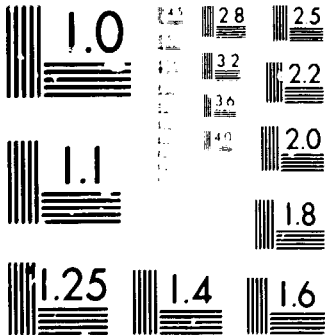
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United Nations Industrial Development Organization

Working Group Meeting on the Long-term Contracts
of Purchase/Supply of Iron Ore and Coking Coal
Bratislava, Czechoslovakia, 16 - 18 March 1982

DISCUSSION PAPER *

prepared by
the secretariat of UNIDO

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Introduction

1. The Second Consultation Meeting on the Iron and Steel Industry (New Delhi, India, 15-19 January 1979) recommended, inter alia, to

UNIDO to:

- a) Arrange a Working Group or seminar composed of representatives of developing and developed countries interested in exporting and importing iron ore to help developing countries towards an understanding of the structure of the market and the nature and content of long-term contracts for the purchase of iron ore.
- b) Identify instances throughout the world for possible co-operation between neighbouring countries in the exploitation of shared ore deposits, and seek to promote constructive discussions.
- c) Review the experience of co-operative buying of iron ore nationally or internationally and formulate proposals for possible action by developing countries.
- d) Assist developing countries towards an understanding of the construction of use of long-term purchase contracts to ensure access to supplies of coking coal in combination with a similar actively proposed above for iron ore and for this purpose organize a working group or seminar for the benefit of buyers in the developing countries.

2. The problems identified by the Second Consultation Meeting have been examined in-depth and are summarized in the following documents

- i) Iron Ore - its supply, markets structure and contractual arrangements ID/WG.360/1
- ii) Metallurgical coal in the 1980's - Facts and prospects ID/WG.360/2

3. The development of the iron and steel industry has been linked directly with availability and stability of supply of the basic raw materials for the sector - that is iron ore and coking coal.

4. Among suppliers of iron ore are both developed (e.g., Australia, Canada, Sweden) and developing countries (e.g., Brazil, India, Liberia).

The following table published by the Association of Iron Ore Exporting Countries (APEC)^{1/} indicates some of the important flows of export (import).

^{1/} Iron Ore Statistics, Sept. 1981, p.16

IRON ORE - IMPORTS BY PRINCIPAL IMPORTING COUNTRIES - 1980

(Thousand metric tonnes)

EXPORTING COUNTRIES	IMPORTING COUNTRIES							
	BELG/ LUX	FRANCE	GERMANY F.R.	ITALY	JAPAN	Netherlands	U.K.	U.S.A.
Algeria	803	-	-	244	-	-	-	-
Australia	831	2 084	4 664	1 793	60 040	416	1 109	-
Brazil	3 325	4 640	12 284	4 969	28 523	2 566	1 621	2 027
Canada	668	1 186	7 032	1 791	3 429	1 194	3 682	17 588
Chile	-	-	-	-	7 071	-	-	327
France	6 840	-	1 851	-	-	-	19	-
India	-	-	4	125	16 507	-	-	-
Liberia	1 269	2 298	6 818	3 117	426	454	61	1 615
Mauritania	882	2 934	550	1 897	993	-	479	-
Norway	238	340	1 913	64	-	-	180	-
Peru	-	62	-	-	2 549	-	-	196
South Africa	343	1 092	4 410	700	6 279	-	103	6
Sweden	5 868	3 175	5 879	-	-	1 900	615	34
Venezuela	950	587	1 748	1 526	-	196	56	3 660
Other	165	244	1 781	666	67 904	850	104	6
TOTAL	22 182	18 642	49 834	16 912	133 721	7 585	8 529	25 459

5. The coking coal production and supply have been determined by the uneven geographical distribution of the reserves. Three countries possess 72% of the world coking coal reserves (USA - 32.4%, China - 20.5%, USSR - 19.0%). These countries plus seven others - Australia, Poland, Federal Republic of Germany, India, South Africa, Canada and UK have almost all the reserves of the world, namely 97.8%. Besides China and India, other developing countries hold only 0.6% of the world reserves.

In the case of developing countries overall trade in coal has been determined by the needs of the iron and steel industry. The World Bank's report draws attention to this fact "of the developing countries, only three - Brazil, Egypt and [Republic of] Korea - are important coal importers. All three import coking coal for their expanding steel industries. and to a lesser extent, [Republic of] Korea imports anthracite for commercial/residential use. Developing countries as a group are marginal net importers of coal to the extent of less than 10% of their own production"^{2/}.

6. Analysis carried out by UNIDC has shown that, given certain favourable conditions, world steel capacity may, by the year 1990, increase to over 1100 MT per annum with the developing countries contributing nearly 250 MT. (Normative Scenario). Corresponding requirements for iron ore and coking coal may then amount to about 1320 MT and 660 MT respectively.

Even if the various constraints to such a development prevent a rapid growth in world steel capacity, and a low growth scenario materialises, the raw material requirements may still be about 1200 MT of iron ore and about 600 MT of coking coal.

7. These different types of scenarios lead towards the same goal, that is, the development of steel industry in both the developed and developing countries - a development based on mutual interest and on reducing the gap between the two sides. In fact, depending upon the ability of the world steel industry to solve its problems relating to finance, training of human resources, transfer of technology, etc., the various scenarios would tend to converge towards each other.

^{2/} Coal Development Potential and Prospects in the Developing Countries, World Bank, October 1979, p.9.

8. Availability of iron ore in years to come is going to be affected by a number of economic factors. Low prices of iron ore and of iron and steel products have led towards high value added obtained by manufacturing industries. "In fact, one tone of steel processed from US\$50 of iron ore is worth approximately US\$500, whilst a motor vehicle is sold at a price of approximately US\$6000/tonne, giving the following proportions:

Ore	=	1
Steel	=	10
Vehicle	=	130 ^{3/}

These proportions indicate a distinct advantage in favour of developed countries, which are exporters of machinery and equipment. In order to redress the inequalities in favour of developing countries it seems necessary to help them to develop their own steelmaking and manufacturing capacities.

9. In the developing countries, though mining operations are generally being carried out in the public sector, close linkage exists with a foreign partner belonging to a big private company or a multinational corporation. The linkage may be through such instruments as a subsidiary company or joint sector or through long-term contractual arrangement. Such linkages are instrumental in the foreign partner exercising considerable influence over the levels of sales and prices of iron ore/coking coal.

10. The current trend of unemployment in the iron and steel sector of developed market economy countries is influencing their attitude towards the developing countries. Some of the developed countries have an apparent apprehension of the efforts being made by the developing countries in setting up their own steel industry. Empirical economic research shows that such fears are groundless. Development of steel industry in the developing countries lead to a positive increase in the demand for equipment - a demand that can be fulfilled by the industrialized countries. To meet this rising demand for equipment, the industrialized countries will then concentrate on its production with consequential benefit accruing to employment. Studies have shown the work needed (man-year) for production and supply of equipment is about 4.6 times higher as compared to the decrease in work caused by

3/ UNIDO/IS.213/Rev.2 "1990 Scenarios for the iron and steel industry, Part I, The Dossiers" p.77.

4/ See Annex for the data on financial control of extraction capacities for iron ore in market economy countries in 1976 and of principal new projects 1977-1981.

lower production of steel products in the country.^{5/} The shortfall in steel production in the industrialized countries can be made up by importing the products from the developing countries. This would also help the developing countries in meeting the payments for supply of equipment by the industrialized countries. This kind of arrangement known as "pay-back" or "barter system" should be looked upon as a mutually advantageous form of industrial co-operation between developed and developing countries.

The interests of the both parties could be balanced through multipurpose contracts envisaging a supply of equipment (supplemented by transfer of technology and relevant training schemes) repaid by deliveries of iron ore and/or steel products. Buy-back (barter) arrangements have been particularly useful for a developing country having problems with its balance of payments.

11. The supplier of technology and equipment for the development of natural resources in a foreign country is primarily interested in long-term multipurpose contract combining the construction of mine (with appropriate infrastructure) with the delivery of mineral commodity. The supplier of the plant may more readily accept total or partial repayment of the cost of the plant through the transfer of final product since this is associated with the operational success of the plant and may obtain greater guarantees as to quality, regularity of supplies and price levels. This consideration is still more valid in a case where multipurpose contracts provide for joint marketing.

12. The system of multipurpose contracts should be applicable equally to the developing countries which have some of the mineral resources needed for production of steel as well as others which do not have these resources. In both cases, the agreement could ensure repayment of the assistance provided by the industrialized country through sale of steel products from the new plant. If the developing country is in a position to export, besides the steel products, other materials, this could also be included in the contractual arrangement.

13. In several cases the multipurpose contract may involve two or more countries joining up to help a third one in developing its raw material resources. Here again, the concept of 'buy back' arrangement will need to be firmly incorporated in the agreement, ensuring repayment by the developing country through sale of the finished products from its steel plant.

^{5/} A. Tiano - Impact du developpement de l'industrie siderurgique dans les pays en voie de developpement sur les economies des pays developpés. p.16

14. In the industrial co-operation between the developing countries and the socialist countries of Eastern Europe as well as in the East-West co-operation, general principles of the multipurpose contracts are being stipulated in intergovernmental agreements in recommendations of joint commissions (mixed commissions) monitoring overall development of bilateral economic relations. Similar institutional mechanisms in the shape of joint commissions have also been developed in relations between some of the developing countries and developed market economy countries.

15. Some new problems arise in the relationship between parties engaged in multipurpose contracts in a third country. The complexity of these "three-way" operations leads parties associated by means of multipurpose co-operation in a third country to establish more integrated forms of co-ordination for their activities. This co-ordination may take form of joint committees of the responsible authorities of the associated enterprises or trading groups.

16. Before concluding a multipurpose contract the interested parties carry out a series of preliminary studies on the possibilities and profitability of the operation contemplated. These studies should relate to, inter-alia:

- intergovernmental agreements which may affect the contract to be negotiated;
- the national laws and economic situation of the countries as well as the possible repercussions of financial laws in the relevant countries on the functioning of contract;
- the cost of mineral commodity (iron ore, coking coal) likely to result from multipurpose contract as compared with that of competitive sources;
- market trends and possible outlets for the commodity to which the co-operation pertains.

17. Before deciding on the definitive formulation of a contract, the parties would be sometimes well advised to conclude a preliminary arrangement stating inter alia:

- the duration of the proposed contract;
- the first measures to be taken in order to achieve practical co-operation;
- the conditions of entry into force of the final contract.

18. In the interpretation of relationships between the parties in multipurpose agreements mention may be made in particular of:

- total or partial repayment of credits granted by one of the parties to the other in the form of the final product resulting from the co-operation;
- sharing of the financial profits.

19. The Working Group is invited to offer its comments on this discussion paper and on the background papers on iron ore and coking coal with particular reference to the following aspects:

- i) Multipurpose contracts (including buy-back arrangements) for development of the iron and steel industry in developing countries.
- ii) Factors influencing the availability of the raw materials keeping pace with demand.

Table 1 ^{a/}

Interests of mining and iron and steel groups in the extraction capacities for iron ore in the "Western" world in 1976.

(in millions of tonnes and as percentages)

<u>IRON AND STEEL GROUPS</u>	<u>220 Mt</u>	<u>32 %</u>
. American groups	121 Mt	17.7%
. European groups	69 Mt	10.0%
. Japanese groups	-	-
. Others	30 Mt	4.3%
<u>MINING GROUPS</u>	<u>425 Mt</u>	<u>62 %</u>
. Transnational groups	103 Mt	15.0%
. Private national groups	99 Mt	14.4%
. Public groups	223 Mt	32.5%
<u>UNCLASSIFIED GROUPS</u>	<u>40 Mt</u>	<u>6.0%</u>

TABLE 2 : THE PRINCIPAL NEW UNITS, 1977

<u>Company/Project</u>	<u>Capacity</u>	<u>Financial control</u>
<u>Brazil</u>		
CVRD	15 mt/year	State: 100%
SAMARCO	8 mt/year	AR: 20 30% Private Brazilian 21% UTAH: 49%
<u>India</u>		
Kudremukh	8 mt/year	Public capital: 100%
<u>Canada</u>		
Quebec Cartier	10 mt/year	U.S. Steel: 100%
Fire Lake	14 mt/year	Sidbec (public): 50% BSC (public): 42% US Steel: 8%
<u>South Africa</u>		
ISCOR/Sishen	10 mt/year	Public capital: 100%
<u>Liberia</u>		
IAMCO and BANG	4 mt/year	miscellaneous

- 1981*/

Notes

including 10 mt/year of pellet feed

pellet and pellet feed

pellet feed

- 9 -

to produce 7 mt/year of pellets

lumps

2 units of 2 mt/year of pellets
which will modify, without increasing,
the Liberian capacity.

TABLE 2 (CONT'D)

<u>Company/project</u>	<u>Capacity</u>	<u>Financial control</u>	<u>Notes</u>
<u>Australia</u>			
Mount Newman	5 mt/year	AMAX: 25% CSR : 30% Japan: 10% Others: 35%	
Hammersley	6 mt/year	RTZ : 50% Kayser: 20% Australian: 30%	
<u>United States</u>			
Minntac	6 mt/year	U.S. Steel: 100%	pellets

*/ Source: "Problems and prospects in regard to supplies of iron ore" - Scenarios for the iron and steel industry 1990, Special Dossier - Supplementary note to Dossier II "Raw materials and energy".

