Distr.
RESTRICTED

E/CEPAL/R.326
28 July 1982

ORIGINAL: ENGLISH

C E P A L

Economic Commission for Latin America

POLICIES AND NEGOTIATIONS WITH TRANSNATIONAL CORPORATIONS IN THE BAUXITE INDUSTRY OF JAMAICA

82-7-1483

CONTENTS

/6. International

/TABLES

TABLES

/INTRODUCTION

INTRODUCTION

In July 1977, an aide-memoire was signed by the Executive Secretaries of the Economic Commission for Latin America (ECLA) and the Economic and Social Commission for Asia and the Pacific (ESCAP) calling for interregional co-operation between the two Commissions in the field of transnational corporations. In that aide-memoire, the Executive Secretaries agreed to launch an interregional research project on the impact of transnational corporations on primary commodity exports from developing countries. Based on appropriate provisions incorporated into the understanding, the Economic Commission for Africa (ECA) joined the project in early 1978.

It was agreed at that time that the three regional Commissions, together with the United Nations Centre on Transnational Corporations in New York (UNCTC), would co-operate in the conduct of in-depth country case studies on the impact of transnational corporations on the export of primary commodities from selected developing countries. To provide a common focus for the country case studies, a general conceptual framework was written focusing on (i) factors determining the relative bargaining positions of host Governments and transnational corporations and (ii) the resulting distribution of gains between the host country and the transnational corporation.1/

The conceptual framework for the case studies has been kept very broad in order to accomodate the multivaried conditions which exist among primary commodity export industries in different countries. It is therefore meant to apply to the various forms of transnational corporation involvement in such industries, from the traditional major direct equity investment by one or more transnational corporations in production, transformation and trade of primary commodities, to the newer forms of licensing agreements,

---

1/ See, "Transnational corporations in export-oriented primary commodities: a study of relative bargaining positions and distribution of gains", CEPAL/CTC Joint Unit, (Santiago, Chile, 30 August 1977) and the modified version "Transnational corporations in export oriented primary commodities: A general conceptual framework for case studies", Joint ESCAP/CTC Unit on Transnational Corporations, Working Paper Nº 1, New York, September 1978.

/joint-ventures,

joint-ventures, trilateral arrangements, production-sharing agreements and so forth. It is also meant to apply to negotiations and renegotiations associated with the nationalization of a foreign direct investment already operating in a host country.

The ultimate aim of the case studies carried out according to the conceptual framework, and indeed of the whole interregional project, is to provide host developing country governments with an input of objectively derived material with which they can evaluate existing TNCs involvement and agreements with them and realize their potential for increased bargaining capacity towards TNCs, as well as, ascertain the relative advantages and disadvantages of policy options at their disposal. To this end, an interregional expert group meeting was convened at ESCAP headquarters in Bangkok in October 1979 to review the case studies up to that point completed by the three regional Commissions. The meeting suggested the most important policy issues and further areas of research in the interregional project and the integration of the case studies from each region into global commodity and sectoral studies to be presented at an interregional seminar in New York (November 1982) on transnational corporations and primary commodity exports.1/

In addition, in its last three ordinary sessions (1975, 1977 and 1979) CEPAL adopted individual resolutions on co-operation among developing countries and among developing regions of different geographical areas.2/

Following the conceptual and institutional framework indicated above CEPAL, through its Joint Unit with the United Nations Centre on Transnational Corporations, has been concerned with this subject over the last few years. Case studies had been accomplished on TNCs involvement in seven commodities in the different countries of the region (bauxite in Jamaica, copper in Chile

---

1/ See, "Report of the Interregional Expert Group Meeting on Transnational Corporations in Primary Export Commodities", Bangkok, 8-15 October 1979 (CTC/ESCAP/PEC/2) and UNDP,"Proyecto de los Gobiernos de Bolivia, Brasil, Colombia, Chile, Honduras, Jamaica, México, Panamá y Perú sobre el fortalecimiento del poder de negociación de los Gobiernos Huéspedes en sus tratos con las empresas transnacionales dedicadas a la exportación de productos básicos" (RLA/80/016/A/01/02).

2/ See CEPAL resolutions 363 (XVII) adopted in Guatemala and 387 (XVIII) adopted in La Paz.

/and Peru,

and Peru, tin in Bolivia, cotton in Mexico, bananas in Honduras and Panama, coffee in Colombia and sugar cane and its energy use in Brazil), applying the common methodology of the interregional project and taking in account the specific problems and needs of the region and the selected countries.

The results of the studies on copper and tin had been presented to the seminar on Alternative Approaches to Negotiating with Foreign Investors and Transnational Corporations in the Copper and Tin Industry, organized by CEPAL in Santiago, Chile, 9-12 December, 1981, with the participation of high-level officials of the public and private sectors and representatives of foreign enterprises from Bolivia, Brazil Chile and Peru 1/ and to the seminar on Policies and Negotiations with Transnational Corporations in the Mining and Metallurgical Industry of Bolivia, organized by the United Nations Centre on Transnational Corporations and CEPAL in co-operation with the Ministry of Mining and Metallurgy of Bolivia, in La Paz, 17-22 May of 1982, with the participation of high-level officials of the public and private sectors of this industry. Finally, similar seminar is envisaged for the export oriented tropical products (banana, coffee, cotton and sugar cane) to take place in Panama in co-operation with the Union of Banana Exporting Countries (UBEC) and the Government of Panama.

In the forthcoming phase of the Interregional Project in CEPAL the commodity and sectoral studies, integrated for the three developing regions, will be accomplished for banana, sugar cane and tin.

The present study analyzes the policy changes and negotiations with TNCs which had taken place in the bauxite industry of Jamaica during the second half of seventies. Chapter I is concerned with an overview of the new policies and renegotiation with TNCs, initiated in 1974, and with the bases of the Jamaican Government's negotiating capacity at that time. The new bauxite production levy, agreements with aluminium TNCs and joint ventures projects with other countries of Latin America are analyzed in the second part of the study. Finally, some conclusions on the negotiating capacity and distribution of gains at the beginning of 1980s are intended in Chapter III.

1/ See, Report of the Seminar quoted above (E/CEPAL/R.306, Restricted, February 1982).

/The present

The present study represents an updating and completion of the previous ones submitted to the Interregional Expert Meeting at Bangkok, in 1979.1/ The CEPAL/CTC Joint Unit on Transnational Corporations would like to express its sincere appreciation to the Jamaica Bauxite Institute and other governmental organizations of Jamaica for their valuable co-operation in the preparation of that study. The views expressed in this restricted document at this stage of the interregional project are entirely the responsibility of the Unit, however, and may not coincide with those of the above mentioned organizations nor with those of CEPAL.

1/ See, TNCs in the bauxite industry of Caribbean countries, E/CEPAL/L.199, August 1979 and Recent development in Jamaica, e/CEPAL/L.201, September 1979. For the updating of the international aspects of the industry see: Transnational Corporations in the Bauxite/Aluminum Industry, United Nations, Centre on Transnational Corporations, ST/CTC/20, New York, 1981 and Processing and Marketing of Bauxite/Alumina/Aluminum: Areas for international co-operation, UNCTAD, TD/B/C.1/PSC/19, 18 August 1981.

I. BARGAINING SITUATION AND GOVERNMENT OBJECTIVES OF THE RENEGOTIATION IN THE MIDDLE OF 1970's

The aluminium TNCs entered in Jamaica in 1950's. Until 1974 they had invested some 664 million dollars in mining, refining and port facilities in the country.1/ Subsequent to the completion of the ALCOA refinery in 1973, there has been no further expansion.

There are presently five TNCs operating in Jamaica.2/ The KAISER and REYNOLDS companies export dried bauxite to their refineries in the United States; ALCAN ships only alumina, principally to Europe and to Canada; ALCOA shipped bauxite until 1977 and then alumina, principally but not exclusively to the United States. The fifth company, ALPART is a consortium of Kaiser, Reynolds and Anaconda and exports alumina to the United States and occasionally to other destinations. The massive expansion in the industry took place during the 1960's and early 1970's, and is reflected in the four fold increase of alumina shipments, from 0.7 to 2.8 millions tonnes in the 1960-1974 period. This way the percentage of bauxite processed into alumina rose from 28 per cent to 48 per cent. Export of dried bauxite almost doubled in the same period, from 4.2 to 8.0 million tonnes (see tables 1 and 2).

1. Renegotiation in the colonial period (1957)

In 1957 Jamaica renegotiated its agreements with the aluminium companies operating within the country. That new agreements increased taxes on exported bauxite five-fold to an average of about 1.85 dollars per ton. The new feature of the fiscal policy was that one-half of the value of total royalty and income tax payments varied with the price of aluminium ingot in the U.S. market. This reflected the recognization of particular characteristics of the industry in the absence of an arms-length price for bauxite, which makes the determination of TNCs subsidiaries profit levels strictly an intra-firm accounting affair. Profits in the host countries can be essentially determined by the parent company by simply altering the transfer prices within the firm.

1/ See, N. Girvan, "The Impact of Multinational Enterprises on Employment and Income in Jamaica, ILO, World Employment Programme Research, Working Papers, April 1976.

2/ The sixth one, Revere Company entered in Jamaica in 1971 and ceased activities in 1975 owing to technology problems in its alumina plant.

/Table 1

Table 1

JAMAICA: BAUXITE ALUMINA OPERATIONS BY TNCs (1978)

Company	Ownership (percentage)	Mine site	Alumina plant site date	Annual capacity ('000 metric tonnes) Alumina	Bauxite
1. JAMALCAN	ALCAN 93%	Russell Place	Kirkvine, 1952 (Mandeville, Manchester)	562	2 687
	JAMAICA GOVT. 7%	Schwallemburg	Ewarton, 1959	558	
2. JAMALCO	ALCOA 94% JAMAICA GOVT. 6%	Breadnut Valley	HalseHall, 1972 (Clarendon)	550	1 270
3. ALPART	ANACONDA 27% REYNOLDS 36.5% KAISER 36.5%	Essex Valley	Nain 1970 (St. Elizabeth)	1 130	3 117
4. KAISER BAUXITE	KAISER 49% JAMAICA GOVT. 51%	Water Valley	Port Rhodes, 1967	-	4 200
5. REYNOLDS	REYNOLDS 49% JAMAICA GOVT. 51%	Lydford	-	-	3 100
6. REVERE a/	REVERE COPPER & BRASS INCORP.	Magotty	Magotty, 1971	(200)	(500)
			TOTAL (excluding REVERE)	2 800	14 374

Source: Various companies reports.

a/ Production ceased in 1975.

/Table 2

Table 2

JAMAICA: BAUXITE AND ALUMINA PRODUCTION, (1953 - 1980)
(Millions tonnes)

Year	Bauxite		Alumina	
	Production	Exports	Exports	Percentage of bauxite
1953	0.9	1.1	-	-
1954	2.1	1.8	0.1	15
1955	2.7	2.2	0.2	17
1956	3.2	2.6	0.2	18
1957	4.7	3.7	0.4	21
1958	5.8	4.9	0.4	16
1959	5.2	4.3	0.4	18
1960	5.8	4.2	0.7	28
1961	6.8	5.0	0.7	25
1962	7.6	6.1	0.6	20
1963	7.0	5.2	0.7	25
1964	7.9	6.1	0.8	24
1965	8.7	6.9	0.7	20
1966	9.1	7.1	0.8	21
1967	9.3	7.3	0.8	22
1968	8.5	6.3	0.9	26
1969	10.5	7.7	1.2	26
1970	12.0	7.7	1.7	36
1971	12.4	7.7	1.8	38
1972	12.5	7.2	2.1	43
1973	13.6	7.4	2.4	46
1974	15.2	8.0	2.8	48
1975	11.4	5.5	2.4	53
1976	10.3	6.3	1.6	39
1977	11.4	6.3	2.0	44
1978	11.7	6.4	2.1	45
1979	11.5	6.4	2.1	44
1980	12.0	6.1	2.4	49

Source: Ministry of Mining and Natural Resources and Jamaica Bauxite Institute (JBI).

/Taxing the

Taxing the revenues derived from the aluminium sales seemed to be a suitable manner of circumventing the problems resulting from the lack of bauxite market prices. Unfortunately, the price of aluminium fell rather than rose after the 1957 agreement. It was not until the early 1970's that the price rose above the 1925 level. Due to the unfavorable market trends the country did not gain in this period from the introduction of the "escalator clause". In addition, and equally as before 1957, the level of income taxes or royalties had no relation either with the quality of the ore mined or with the grade of processing into alumina. In 1972, for example, 3.5 millions tons of bauxite were converted into alumina and yielded in taxes only 1 million dollars. This value was only a fraction of the almost 9 million dollars for the state budget which the same bauxite would have generated without refining. The companies were able to record almost no profit from the new alumina plants by using, as in the case of bauxite, transfer pricing, or, in other words, allowing the local plants to minimize their local tax costs through artificially low "prices" accounted for alumina. The administration lacked the information and political will to negotiate or impose a more significant redistribution of the industry gains in favour of the host country. This occured only later, in 1974, as will be seen in the following point.

2. Renegotiation in 1974

By the mid-1970s there were some profound changes in the relationships between the Government of Jamaica and the TNCs. These included the increase of budget revenues through the new production levy, the recovery of the ownership of some 200.000 acres of bauxite lands including excess reserves held by TNCs with no particular plans to use them and direct state participation in the bauxite and alumina industries.

a) Bauxite production levy

As a result of the previous experience in the uneven distribution of industry gains the government that emerged from the elections in 1972, established a special Bauxite Commission to study thoroughly the TNCs operations and financial practices in Jamaica in order to prepare a new renegotiation with the foreign companies in more equitable terms. In 1974 the

/Government of

Government of Jamaica proposed a novel method of taxation - a production levy imposed on all bauxite produced (including that refined locally in alumina) and fixed as a percentage of the price of primary aluminium ingots in the U.S. market. The government's original proposal, in January 1974, was to fix the levy at 8.5% for aluminium prices up to 35 cents per pound and then, to raise the percentage share for prices higher than that level. Thus the new method of taxation had to remove the difficulties faced in the previous agreements from 1960s. The TNCs accepted the principal of the levy but countered with an offer of 3.5% share. The negotiations broke down in May and the government legislated the new fiscal terms, setting the production levy at 7.5% for the financial year 1974-1975.

To a large extent the original opposition of TNCs to accept the higher taxes required by the government (and transfer the higher cost to the aluminium consumers), had been caused by the fact, that TNCs were faced with the sudden rise in the cost of energy, an important input for the industry, which introduced a considerable degree of uncertainity. An other aspect was the TNCs natural fear of the demonstration effects of Jamaican action on other bauxite producing countries. The combination of these factors led the aluminium TNCs to follow a relatively inflexible bargaining position. They filed claims against the new Jamaican tax legislation at the International Centre for Setting Investment Disputes (ICSID at the World Bank) for arbitration.

The TNCs finally accepted the new production levy in package deals aimed also at greater control of the bauxite resources of the country through state participation in their ownership.

b) Ownership participation policy

The agreements which the Government concluded with Kaiser, Reynolds, Alcoa and Alcan between 1976 and 1978 provided that Government would acquire a 51% holding in the mining operations of the companies. In the case of the alumina companies, this 51% was converted into a 6% and 7% share in the overall bauxite mining and alumina refining operations of Alcoa and Alcan respectively.

/The agreements

The agreements provided that the TNCs would sell the mining lands in their possession to the Government at written-down book value. Government would pay for the lands so acquired over a ten-year period, and in return, would guarantee the respective companies sufficient reserves to carry on their operations at existing levels for a period of forty years. The companies would then be given a mining lease over the reserves areas so allocated to them.

In the case of Reynolds and Kaiser, the TNCs would pay a Dedication Fee to the Government of 7% per annum of the purchase price of the lands within the mining lease area accorded to them. In addition, the TNCs are also required to pay royalties based on the extraction of ore within the reserves areas, and for these purposes, the rate of royalty was fixed at 0.5 dollar per long dry ton of bauxite mined.

In addition, Alcoa, Kaiser, Reynolds and Alcan - also became the beneficiaries of a special fiscal regime, which dealt mainly with the income tax and production levy applicable. This regime also dealt with exemption from transfer tax, stamp duties, registrarion fees, and other charges where transfers had to be done to give effect to the provisions of the agreements.

Though the signing of new agreements between the Government of Jamaica and the companies began as far back as October 1976, formal implementation of the joint ventures and partnerships have been undertaken only in late 1979 - JAMALCAN (Alcan 93%, Jamaica 7%) and JAMALCO (Alcoa 94% Jamaica 6%) and in February, 1980 - Kaiser Jamaica Bauxite Company (Kaiser 49% Jamaica 51%) and Jamaica Reynolds Bauxite Partners (Reynolds 49%, Jamaica 51%). The Government of Jamaica's equity is vested in Jamaica Bauxite Mining Ltd. (JBM). Either partner in these ventures may undertake expansion of the operations.

/c) The Revere

c) The Revere case: legal and political aspects of the production levy

In the course of the negotiations and consequent upon the imposition of the bauxite levy, there has been considerable reliance upon juridical principles as a basis for supporting the contentions advocated both by the Government and by the bauxite companies. On the one hand, the TNCs have sought to relay upon the principle of sanctity of contracts and have even challenged the constitutional right of the Government to impose the levy. On the other hand, the Government has asserted its sovereign right to impose taxation in order to secure a fair share of the returns from its major natural resource and in full compliance with its permanent sovereignty over its natural resources.

Revere, which had entered into an agreement with the Government of Jamaica in 1967 for the establishment of an alumina plant, contended that the Bauxite (Production Levy) Act was in breach of its agreement with the Government that no further taxes were to be imposed; it also contended that the levy was unconstitutional in that it compulsorily deprived the company of its proprietary rights.

The Supreme Court of Judicature of Jamaica rejected these contentions on the basis that the agreement could not create rights which entitled Revere to be exempt from further taxation, since competence in the field of taxation was vested in Parliament and not in the Executive. In addition, the Court upheld the contention that the agreement could not fetter the future exercise of the legislative powers in matters essential to the general welfare of the community. In this regard, the Court noted that immediately prior to the enactment of the Bauxite (Production Levy) Act the country had very serious balance of payments problems resulting from massive increases in the import prices of basic commodities; that bauxite was a major foreign exchange earner; that the country earned less from bauxite in 1973 than in 1971, although the total amount of bauxite produced had increased over the period; that without the bauxite levy the country's current account for foreign account purposes would

1/ Taken from K.O. Rattray, Solicitor General of Jamaica, Proceedings of Bauxite Symposium, Special Issue of The Journal of the Geological Society of Jamaica, No 4, June 23-25, 1980, Kingston, December 1980.

/have a

have a deficit of approximately $295 million; and that, accordingly, the action taken in imposing the levy "was essential for the general welfare of the community."

The Court also rejected the contention that the bauxite levy was unconstitutional on the basis that it involved the compulsory acquisition of the plaintiff's proprietary rights since no such proprietary rights were capable of being created in respect of taxation by virtue of the agreement; in any event, since the levy clearly satisfied the characteristics of a tax, it could not receive any protection from the constitutional guarantees in respect of property contained in Section 18 of the Jamaican Constitution.

The issue of permanent sovereignty over natural resources was raised on behalf of the Government in the proceedings in the Supreme Court. It was contended that it was clearly within the competence of the Government to enact the Bauxite (Production Levy) Act having regard to the state of customary international law as reflected in the various Resolutions of the General Assembly of the United Nations dealing with permanent sovereignty over natural resources, the Declaration on the New International Economic Order, and the Charter on Economic Rights and Duties of States. In the event, the Court did not find it necessary to pronounce on this issue, but was content to rest its findings upon the internal constitutional position.

Separate proceedings were, however, instituted by Revere in the United States against the Overseas Private Investment Corporation (OPIC), which provided investment guarantees against expropriation in respect of Revere's Jamaican operations. Those issues were to be heard by an Arbitration Tribunal in the United States, which essentially sought to interpret the insurance policy between Revere and OPIC in accordance with the laws of the District of Columbia. In dealing with this matter, the arbitration Tribunal made the following findings:

a) That the bauxite levy was not confiscatory.

b) That principles of international law were applicable in determining the liability of OPIC on the question as to whether or not there was a breach of the agreement by the Government of Jamaica.

/ c) That the

c) That the facts and circumstances relating to the agreement resulted in an internationalization of the agreement and that the principle pacta sunt sevanda applied, so that the Bauxite (Production Levy) Act and the actions taken by the Government in 1974 resulted in a breach of the agreement.

d) That, having regard to all the facts and circumstances of the operations of Revere, it was only entitled to compensation of 1,13 millions dollars.

A strong dissenting opinion was given in those arbitrarion proceedings, on the basis that the OPIC contract and its interpretation was governed by the laws of the United States and not by international law, and that the action taken by the Government of Jamaica could not constitute expropriatory action within the terms of the contract. In so holding, the minority opinion affirmed that the nature of the bauxite levy was by any reasonable standard within the range of a proper taxing power of Jamaica and not by any standard confiscatory, that neither the levy nor the manner of its imposition could be regarded as unreasonable by normal standards of tax enactment in the international community, including precedents existing in the United States. Revere company eventually closed down in August 1975 its inefficient Magotty alumina plant and divested from Jamaica.

3. Base of the governments' negotiating capacity at the beginning of 1970s

The new governmental policies and renegotiation with TNCs, summarized above, had their base in several factors which should have led to their succesful completion and greater benefits for Jamaica's economy and welfare. Not all of them proved justified and, furthermore, new and scarcely predictable problems arose in the late seventies in the perfomance of government policies. These issues will be dealt within the latter part of this report (III.). In continuation the main factors which might have influenced the government's position, are briefly reviewed.

/One of

One of the factors giving significant bargaining leverage to the government was the fact that 3 of four major TNCs operating in Jamaica (Alcoa, Alcan, Reynolds and Kaiser), depended heavily on her bauxite resources (11%, 55%, 57% and 58% respectively, see table 3). It was supposed that owing to special characteristics of bauxite of different origin, the home country processing facilities using Jamaican inputs would have to be overhauled (which is a time and cost consuming process), if diversifying to other resource origin.

Secondly, the low share of bauxite and alumina in the final price of aluminium made it possible for the bauxite producing countries to obtain increased revenue with only a slight impact on the global TNCs average costs. In 1980's the share of mining and drying of bauxite in the total aluminium cost had been only some 7% and that added by alumina refining of 2% approximately (see table 4). These figures are relatively low and suggest that the cost of bauxite and alumina could be increased with little impact on demand for the final aluminium product.

A third aspect of the negotiating process which tended to favor the Jamaican government was the cost competitiveness of Jamaican bauxite production in the United States market. As can be seen in the table 5, Guyana's bauxite is the closest in cost to Jamaica, but still is almost 10 dollars per ton more expensive. After the introduction of the new increased levy, the cost of alumina per ton in Jamaica rose from 23 to about 33 dollars which was almost equal to the cost in Guayna and much less than in Australia (55 dollars per ton, see again table 5), thus removing only part of the economic rents of the TNCs.1/

Fourth, the Jamaica Bauxite Commission was formed in 1972 in order to improve the information base of the government. This spent nearly two years examining operating and financial conditions within the industry and

---

1/ As will be seen below (chapter III.) especially this factor did not prove justified because of continued increase of imported energy cost which strongly debilitated Jamaica's competitiveness.

/Table 3

Table 3

BAUXITE PRODUCTION BY TNCs AND PRODUCING COUNTRIES (1973)

	ALCAN	ALCOA	ALUSUISSE	Kaiser	Reynolds
		a) Million tons			
Jamaica	3.1	1.35	-	6.90	4.43
Suriname	-	4.55	-	-	-
Dominican Republic	-	1.48	-	-	-
Guyana a/	-	-	-	-	1.33
Haiti	-	-	-	-	.70
Brazil	.22	.25	-	-	-
Australia	-	2.83	2.18	4.80	-
U.S.A.	-	.98	-	-	1.25
France	.50	-	.31	-	-
Rest	1.80	.86	.92	.24	.08
TOTAL	5.60	12.30	3.40	11.90	7.80
	b) Percentage of TNCs production worldwide				
Jamaica	55.0	11.0	-	58.0	57.0
Suriname	-	37.0	-	-	-
Dominican Republic	-	12.0	-	-	-
Guyana a/	-	-	-	-	17.0
Haiti	-	-	-	-	9.0
Brazil	9.0	2.0	-	-	-
Australia	-	23.0	64.0	40.0	-
U.S.A.	-	8.0	-	-	16.0
France	4.0	-	9.0	-	-
Rest	32.0	7.0	27.0	2.0	1.0
TOTAL	100	100	100	100	100
	c) Percentage of TNCs production by producing countries				
Jamaica	19.5	8.6	-	43.7	28.2
Suriname	-	100.0	-	-	-
Dominican Republic	-	100.0	-	-	-
Guyana a/	-	-	-	-	100.0
Haiti	-	-	-	-	100.0
Brazil	47.7	52.3	-	-	-
Australia	-	29.0	22.3	48.7	-
U.S.A.	-	44.1	-	-	55.9
France	62.2	-	37.7	-	-
Rest	-	-	-	-	-

Source: ECLA on base of companies reports.

a/ Excludes nationalized production.

/Table 4

Table 4

PRODUCTION COSTS OF PRIMARY ALUMINIUM (1960s)

(U.S.$ per ton)

Stages of Production	U.S.$	Percentage of a/	
		Total cost	Cost in each stage
Mining and Drying of bauxite	10.70	7.0	100.0
Labor	1.58	1.0	14.8
Other inputs	9.12	5.7	85.2
Alumina refining	44.00	27.5	100.0
Bauxite	10.70	7.0	25.5
Other inputs	11.63	7.3	26.5
Value added	21.67	13.6	49.0
Smelting - Aluminium ingots	159.78	100.0	100.0
Alumina	44.00	27.5	27.5
Electricity	15.73	9.8	9.8
Other inputs	30.52	19.1	19.1
Value added	69.53	43.5	43.5
Total Cost	159.78	100.0	

Source: Norman Girvan, The Caribbean Bauxite Industry, Institute of Social and Economic Research, Kingston, Jamaica, 1967.

a/ Figures do not sum to percentage distribution of each stage due to rounding.

/Table 5

Table 5

COMPETITIVENESS OF JAMAICAN BAUXITE IN THE U.S. MARKET

(Estimated cost in U.S. Dollars per ton of bauxite)

	Jamaica	Guyana	Guinea	Brazil	Australia
Mine operating costs	3.00	3.00	3.00	3.00	4.00
Mine capital costs	1.07	3.20	3.20	3.20	3.20
Inland transport	2.00	2.00	2.00	2.00	2.00
Infrastructure share	-	2.50	2.50	2.50	2.50
Ocean transport	3.00	5.60	6.00	10.00	13.50
Sub-total	9.07	16.30	16.30	20.70	25.20
Tons bauxite/ton alumina	2.5	2.0	1.9	1.8	2.2
Cost bauxite per ton alumina	22.68	32.60	31.73	37.26	55.44
Advantage of Jamaica per ton of alumina	..	9.92	9.05	14.58	32.76

Source: IBRD, Market Structure of Bauxite/Alumina/Aluminum: and Prospects Developing Countries, Commodity Paper Nº 24 (3/77).

/differences among

differences among the various TNCs. That period of pre-negotiation preparation and examination of the conditions faced by the government greatly improved its bargaining capacity.

A fifth important factor, evolving from the new international setting,1/ was the formation of the International Bauxite Association (IBA), in 1974, by Jamaica, Suriname, Guinea, Guyana, Australia, Sierra Leone and Yugoslavia, joined later by the Dominican Republic, Haiti, Ghana and Indonesia. In 1975, the IBA countries accounted for 73% of total world bauxite production. One of the original purposes of this association was to present a united front of all bauxite exporting countries to the TNCs aiming at the redistribution of the industry gains. To the extent that they were successful, the foreign firms' diversification of bauxite sources would be neutralized. In the 1974-1975 period, such neutralization appeared to have been successful, particularly owing to the fact that the hence government of an importante alternative source country--Australia--had adopted a pro-Third World attitude reflecting its concern about foreign control of its own natural resources.

Sixth, Jamaica faced, in 1970s, a more diversified world market for bauxite and alumina, characterized by the entry of several new U.S. firms in the late 1960s and more rapidly increasing Japanese and European demand, even with occasional purchases by the Soviet Union (see table 6). In addition, the Jamaican government was supposed to enter in joint venture agreements with other bauxite producing and consuming countries of Latin America in order to diminish the dependence from TNCs and diversify the bauxite industry linkages.

Finally, the immediate consequences of the 1973 oil crises resulted in a severe balance of payments constraints, which had been only partially offset by other exports, particularly of sugar. In this difficult situation, the development objectives of the government made increased tax revenue essential.

In the following chapter II the Jamaican policies, pursued in the second half of the seventies, will be analyzed in more depth.

1/ See, for example, the Third World position on the New International Economic Order, the establishment of UBEC in Central America and, especially, the OPEC countries joint actions in 1973-1974.

/Table 6

Table 6

CONSUMPTION OF PRIMARY ALUMINIUM BY MAJOR AREAS

a) Thousands of metric tons

	1960	1965	1970	1975	1976	1977
U.S.A.	1 541	2 852	3 488	3 265	4 490	4 756
Canada	97	173	220	286	300	310
Japan	151	286	911	1 171	1 610	1 422
Europe	1 278	1 518	2 606	2 804	3 501	3 530
World (excluding socialist countries)a/	3 247	5 195	7 935	8 608	11 086	11 373

b) Annual growth rates

	World (except soc. countries)a/	U.S.A.	Canada	Japan	Europe
1961	6.5	16.2	18.6	23.2	-10.3
1962	12.0	16.5	10.4	-1.1	5.2
1963	11.5	13.2	8.7	17.9	7.6
1964	10.8	7.3	1.4	20.7	13.9
1965	8.6	12.5	23.6	9.1	2.6
1966	17.0	15.0	12.1	30.4	14.4
1967	0.2	-4.9	-13.4	33.2	0.2
1968	15.5	15.3	12.5	21.3	15.2
1969	9.9	3.0	12.2	30.0	16.3
1970	2.6	-5.9	5.2	12.9	8.3
1971	6.8	12.3	15.9	6.8	-4.3
1972	11.5	9.8	9.4	25.0	12.0
1973	18.4	18.1	7.9	32.6	14.9
1974	0.9	1.0	18.9	-19.2	5.7
1975	-23.7	-36.3	-20.1	-10.1	-17.3
1976	28.8	37.5	4.9	37.5	24.9
1977	2.6	5.9	3.3	-11.7	0.8
Annual average growth					
1960-1971	8.9	8.9	9.2	18.1	6.1
1960-1966	11.1	13.4	12.3	16.2	5.2
1968-1971	6.4	4.3	10.5	16.2	7.4
1960-1977	7.7	6.9	7.1	14.1	6.2

Source: Problems and Prospects of the Primary Aluminium Industry, OECD, 1973 and Metal World Statistics, various issues.

a/ Socialist countries - Bulgaria, People's Republic of China, Czechoslovakia, Democratic Republic of Germany, Hungary, Poland, Romania and USSR (excluding Yugoslavia).

/II. GOVERNMENTAL POLICIES

II. GOVERNMENTAL POLICIES AND NEGOTIATIONS IN THE SECOND HALF OF THE SEVENTIES

1. The bauxite production levy 1/

a) Pre-1974 Agreements

Prior to 1974 the Government of Jamaica derived revenue from the bauxite-alumina industry through income taxes and royalties, in accordance with legislation enacted in 1950 and 1957. The provision of the 1950 and 1957 Agreements were as follows:

1950 Agreement:

	Royalties Per Ton	Income Tax Per Ton
Bauxite Exported	1 shilling	40% of an assumed profit of 60 cents
Bauxite Processed Locally	10 pence	40% of realized profit.

1957 Agreement:

	Royalties Per Ton	Income Tax Per Ton
Bauxite Exported	1st million tons - 4 shilling 2nd million tons - 3 shilling Over 2 million tons - 2 shilling	40% of an assumed profit of 3.85 dollars; of which 1.925 dollars was fixed, the other 1.925 varied with the price of aluminium.
Bauxite Processed Locally	1st million - 2 shilling 6 spence 2nd million - 2 shilling Over 2 million - 1 shilling 6 spence	40% of realized profit.

In the period 1952-74, bauxite production increased dramatically from 381 to 15,166 thousand long dry tons. However, the revenues which accrued to Government were relatively modest increasing from 6.9 million in 1957 to 29.0 million dollars in 1973. In 1973, for example, the revenue yield per ton of bauxite amounted to 2.30 dollars.

1/ Based on Paper Nº 46 of the Ministry of Mining and Natural Resources of Jamaica from October 1979 and additional information from the Jamaican Bauxite Institute.

/ b) The 1974

b) The 1974 production levy

The principal cause of the modest revenue yield from the industry prior to 1974 centred on the difficulty in determining a fair price for bauxite. As there is little or no free market trading of bauxite and alumina the price of the commodities, as well as the profit realized per ton, are set arbitrarily by the companies through the mecanism of transfer prices. In order to surmount the problems of determining a fair price for and hence reasonable revenue return from bauxite, the Government of Jamaica decided to impose a production levy. This was an extraordinary tax which was designed to link the price of bauxite to the market price of aluminium. This practice whereby the price of a raw material, such as bauxite, is set as a fixed percentage of the final product is referred to as "indexation".

i) Structure of the levy

Under the 1974 arrangement, 7.5% of the average realized price (ARP) of primary aluminium realized by the three U.S. TNCs (Kaiser, Reynolds and Alcoa) was paid to the Government as a levy on the bauxite used to produce that metal. Having established the rate to be applied, the next step involved the determination of the exact quantity of Jamaican bauxite that goes into the production of a ton of metal. It was determined that on average, it takes 4.3 long tons of bauxite to produce one short ton of aluminium (2,000 lbs).

The levy was therefore computed on the basis of the following formula:

$$\text{Levy} = \text{Levy Rate} \times \text{Average Realized Price of Aluminium} \times \frac{2{,}000}{4.3 \times 100}$$

On the assumption that the average realized price of aluminium was 50 dollars cent, the levy per ton would be $\frac{7.5 \times 50¢ \times 2{,}000}{4.3 \times 100} = 17.44$ dollars.

It was intended that the levy rate which was originally set at 7.5% should be increased in 1975 to 8% and in 1976 to 8.5%, subject to the discretion of the Government. It was later decided, however, that the levy rate should be stabilized at 7.5%. In addition, the Government specified minimum production targets against which the levy of each company would be paid, except where unforseen circumstances forced the companies to produce below the specified amounts.

/The royalty

The royalty payable per ton of bauxite was raised to 50 Jamaican cents. Companies would be no longer charged separate income tax. To all intents and purposes, the income tax normally payable would be regarded as forming part of the levy.

ii) Impact of the levy

As a result of the imposition of the levy, the Government received a significant increase in revenue. By comparison with the revenue yield through royalties and taxes of 29 million dollars in 1973, the levy yielded 185 million dollars in 1974. In 1974-79 the Government earned in excess of billion dollars from the levy (see table 22 in Part III below).

On the other hand, the imposition of the levy led to a considerable decline in the production of bauxite which became more expensive than bauxite from other sources. Hence, between 1974 and 1979, the country lost markets to other competing bauxite producers (especially Australia and Guinea) and the volume of production declined, substantially as demonstrated in the tables 7 and 8.

As a consequence, in spite of the unprecedented return being made (on their consolidated operations) by the companies, the Government had to take note of the situation and renegotiate.

c) The new levy agreement in 1979

i) Reasons and objectives

The levy imposed by Jamaica in 1974 was not followed by two of the major producing countries, Australia and Guinea. This had the effect of reducing the competitiveness of Jamaican bauxite and alumina, especially when the world industry was in a state of depression as in 1975 and 1976. As a result, bauxite production in Jamaica fell from 15.2 million in 1974 to 11.6 million metric tons in 1978 decreasing its share in the IBA countries total from 27% to 18% (see again table 8). At the same time production in Guinea, Australia and Brazil increased considerably, in some cases as a result of a switch from using Jamaican bauxite by the bauxite/alumina TNCs in those countries. Operating rates in the Jamaican industry fell to levels significantly below installed capacity as the TNCs operating in the industry found the levy to be a disincentive to development. In 1980, the TNCs exports

/Table 7

Table 7

JAMAICA: YIELDS OF BAUXITE TAXATION AND PRODUCTION DEVELOPMENT (1974-1979)

Year	Total levy & royalties yield millions dollars	Bauxite production	
		Million tonnes	Index
1974	185.4	15.2	100.0
1975	153.0	11.4	75.0
1976	130.3	10.3	67.8
1977	179.7	11.4	75.0
1978	191.5	11.7	77.0
1979	192.0	11.5	75.7
1980	202.6	12.0	78.9

Table 8

JAMAICA AND IBA BAUXITE PRODUCTION (1974-1979)

(Thousand metric tonnes)

IBA member countries	1974	1977	1979	Percentage share	
				1974	1979
Australia	20,065	26,674	27,583	35.4	41.8
Dominican Republic	1,477	722	521	2.6	0.8
Ghana	421	235	251	0.7	0.4
Guinea	5,010	10,871	12,199	8.8	18.5
Guyana	3,168	3,344	3,354	5.6	5.1
Haiti	641	588	560	1.1	0.8
Indonesia	1,290	1,301	1,093	2.3	1.7
Jamaica	15,166	11,433	11,574	26.8	17.6
Sierra Leone	672	745	680	1.2	1.0
Suriname	6,385	4,951	5,073	11.3	7.7
Yugoslavia	2,370	2,044	3,012	4.2	4.6
Total IBA	56,665	62,308	65,900	100.0	100.0

Sources: IBA Member Countries; World Metal Statistics; Metallgesellschaft.

/of bauxite

of bauxite and alumina fell by 24% and 15%, respectively, in comparison with 1974 levels and operating rates were at 80% (ALPART) - 92% (Alcan) of production capacity (see tables 9 - 12). If these trends continued, the Jamaican bauxite industry was faced with collapse in the mid-1980s. To pre-empt the possibility of such collapse, it became necessary to adjust the levy.

The objectives of the reduction in the levy were to check the market erosion which the industry had experienced since 1974; provide the basis for the increased utilization of existing capacity in the industry; serve to attract the necessary investment to ensure expansion over the medium to long-term period and, finally, to maintain the revenues accruing to the Governme from the industry at a satisfactory level, while allowing for growth in production.

ii) Structure of the reduced levy

The new levy differs from the original one insofar as its rate is linked not only to the realized price of aluminium in the North American market, but also to production levels. This is applied through the following rules:

- Should the companies' production fall below a specified level of production they will be charged a levy at the old rate of 7.5% of the average realized price of aluminium of the four North American companies (Alcoa, Alcan, Reynolds, Kaiser). However, once the minimum targets are met, the new arrangements apply.

- In the past, the levy rate was charged against the prevailing Average Realized Price (ARP) of aluminium. That is, if the average realized price during the year was 50 cents of dollar per lb, that price was used in the formula for the purpose of deriving the levy. Under the new arrangement, the concept of a "cap" has been introduced to represent the price of aluminium. The initital price, and hence the cap, against which the new levy rates will be applied, is 58 cents. For each additional 6 cents increase (inclusive of the last quoted price) in the average realized price, this "cap" or representative price, will increase by one cent and the basic levy rate will decline by 0.3% when the "cap" reaches 60 cents or more. Hence, the following schedule applies:

/Table 9

Table 9

JAMAICA: EXPORT OF BAUXITE BY TNCs (1974 - 1980)

(Thousand metric dry tons)

	KAISER	REYNOLDS	ALCOA	TOTAL	
				Tonnes	Percentage Change
1974	4,081	3,307	612	8,000	+8.2
1975	2,717	2,342	424	5,483	-31.5
1976	3,272	2,634	378	6,284	+14.6
1977	3,691	2,555	110	6,355	+1.1
1978	3,942	2,506	-	6,448	+1.5
1979	3,646	2,754	-	6,400	-0.7
1980	3,572	2,500	-	6,073	-5.1
Index (1974 = 100.0)	87.5	75.6	-	75.9	..

Source: Jamaica Bauxite Institute.

/Table 10

Table 10

JAMAICA: EXPORT OF ALUMINA BY TNCs (1974 - 1980)

(Thousand metric tons)

	ALCAN	ALCOA	ALPART	REVERE	TOTAL	
					Tonnes	Percentage Change
1974	1,133	533	978	162	2,806	+16.1
1975	988	406	845	136	2,375	-15.4
1976	760	167	696	-	1,623	-31.7
1977	763	381	892	-	2,036	+25.5
1978	878	447	817	-	2,142	+5.2
1979	813	476	785	-	2,074	-3.2
1980	1,038	468	889	-	2,395	+15.5
Index (1974 = 100)	91.6	87.8	90.9	-	85.3	..

Source: see table 9.

/Table 11

Table 11

JAMAICA: OPERATING RATES OF BAUXITE/ALUMINA INDUSTRY (1973-1980)

(Millions tonnes)

Year	Bauxite Production Capacity	Operating Rate %	Alumina Capacity	Operating Rate %
1973	15.54	87.5	2.9	81.6
1974	16.07	95.3	3.0	93.3
1975	16.12	71.8	3.0	80.0
1976	15.82	65.2	2.8	55.2
1977	14.37	79.5	2.8	71.9
1978	14.37	81.6	2.8	74.1
1979	14.31	80.4	2.8	73.5
1980	14.34	83.7	2.8	86.2

Source: see table 9.

Table 12

OPERATING RATES BY COMPANIES

(Per cent)

Company	1974	1975	1976	1977	1978	1979	1980
Alcan	100	84	68	76	72	74	92
Alcoa	100	69	27	68	84	87	88
Alpart	83	74	59	77	75	67	80
Kaiser	97	66	64	85	92	88	85
Reynolds	89	64	72	67	62	90	81
Revere	56	40	0	0	0	0	0

Source: see table 9.

/CAP

CAP	ARP RANGE	BASE LEVY RATE
58 ¢	58.01 - 63	6.8%
59 ¢	63.01 - 68	6.8%
60 ¢	68.01 - 73	6.5%
61 ¢	73.01 - 78	6.5%
62 ¢	78.01 - 83	6.5%
63 ¢	83.01 - 88	6.5%

- In addition to the base levy rate, there will be varying levy rates which will apply to the difference between the prevailing average realized price and the cap of the range in which that ARP falls. For example, if the ARP reaches 62 cents the companies will be charged 6.8% of the cap of the range in which 62 ¢ falls (i.e. 58¢), plus a percentage of a difference between the ARP 962¢) and the cap. The full formula to be used in computing the levy is as follows:1/

AVERAGE REALIZED PRICE	CAP	BASE RATE	VARYING RATE ABOVE BASE RATE
58.01 - 63.00	58¢	6.8%	5.0%
63.01 - 68.00	59¢	6.8%	4.5%
68.01 - 73.00	60¢	6.5%	4.0%
73.01 - 78.00	61¢	6.5%	3.5%
78.01 - 83.00	62¢	6.5%	3.0%
83.01 - 88.00	63¢	6.5%	3.0%

In order to provide a basis for growth in the industry, the companies are provided with incentives under the new levy arrangements:

- On the first 200,000 LDT of bauxite produced over the specified minimum target, each company is required to pay 75% of the total levy;
- On the second 200,000 LDT, 60% of the total levy;

1/ Example: Assume that the ARP in 1980 is 68¢ per lb. of aluminium. To compute the levy, we first apply the base rate for that ARP range against the cap of that range and the conversion formula for bauxite to aluminium, i.e.

$$6.8 \times 59¢ \left(\frac{2000}{4.3 \times 100} \right) = \$18.66$$

The we apply the varying rate to the difference between 68¢ and the cap and the bauxite-aluminium conversion factor, i.e.

$$4.5 \times (68-59) \times \frac{2000}{4.3 \times 100} = \$1.88$$

We then add the two totals to get a levy of $20.54.

/- On the

- On the next 200,000 LDT, 50% of the total levy;
- On production in excess of the above 600,000 LDT, the applicable levy rate will be settled by negotiations.

In order to ensure against the adverse impact of falling prices on the economy of the country, the new levy arrangements provide for increasing levy rates for ARPs below 58¢. The schedule is set out below:

ARP	LEVY RATE
58¢	6.8%
57¢	6.95%
56¢	7.05%
55¢	7.15%
54¢	7.3%
53¢	7.5%

A review of the new levy agreements will be carried out either in January 1984 or when the average realized price reaches 85¢; whichever comes first. It is expected that this review will be based on the principle of ensuring the competitiveness of the local industry relative to other producing countries, and ensuring a fair and reasonable return to both Jamaica and the companies.

d) Situation at the beginning of 1980's 1/

At the beginning of the eighties, it was still difficult to evaluate the effects of the changes in the taxation policy undertaken in 1979. The major difficulty was the slackening demand and decreasing prices of aluminium resulting from the world economic recession. According to preliminary evaluations, the yields of the production levy diminished by some 40 million dollars in 1981, in comparison with approximately 200 millions recollected in 1980. All TNCs operating in Jamaica had been cutting their production of bauxite and alumina referring to the lack of world demand and relatively high production costs resulting, especially, from the increasing prices of imported energy and the high tax burden. Under these negative conditions continued the negotiations with TNCs on the bauxite levy and eventual incentives leading to production and investment increase.

1/ See, Latin America Commodities Report, and Mining Journal, several issues, 1981 - May 1982.

/2. Agreements between

2. Agreements between the Government and TNCs

After imposing the new bauxite levy in 1974 the Government of Jamaica has signed agreements with four major companies operating in the country. These agreements, in order of signing, were concluded with Alcoa (October 6th, 1976), Kaiser (February 2nd, 1977), Reynolds (March 31st, 1977) and Alcan (Septemb 25th, 1978). No agreement has yet been signed with ALPART. The term of all four agreements is forty years, as of the date of their coming into effect.

There are basically two types of agreements - those negotiated with Kaiser and Reynolds, and those negotiated with Alcoa and Alcan. The former provide for a 51 per cent equity by the Government of Jamaica in Joint Venture partnerships in mining operations with management functions remaining with the TNCs. Shipments will continue to the refinery facilities of the TNCs in the United States.

The agreements with Alcoa and Alcan convert the value of 51 per cent of the mining assets of each of the companies to a corresponding equity participation by the Government of Jamaica in the overall operations of the two Companies, including their alumina refinery facilities. This results in the Jamalco partnership between the Government of Jamaica (6 per cent) and Alcoa (94 per cent); and the similar partnership with Alcan (Jamalcan) whereby Jamaica has a 7 per cent interest and Alcan a 93 per cent interest. In the case of the Alcoa and Alcan joint venture agreements, the Government of Jamaica should be receiving yearly an alumina entitlement, proportional to its equity participation, of 33,000 tons in the case of Alcoa and 77,000 tons in the case of the Alcan agreement, with unrestricted rights to sell this material.

The detailed provisions of the four agreements are overviewed below.

a) The agreement with Alcoa and the Jamalco joint venture

Although the Government of Jamaica first approached the Kaiser and Reynolds Companies, the agreement with Alcoa was in fact the first to be signed on October 6th, 1976. The principal negotiating positions of the two parties to the agreement can be summarized as follows:

/On the

On the part of the Government

- that mining land acquired by the companies revert to national ownership;
- that the Government acquire majority equity participation in all mining activity;
- that the Government obtain a fair return for the country's major physical resource in the form of a production levy indexed to the real price of aluminium ingot in the market place;
- that government should have the option of participating in alumina processing.

On the part of the Alcoa Company

- that the Company be assured of control over all basic operations of mining and alumina refining;
- that the Company have guarantees concerning future cost stability and access to bauxite material;
- that the Company receive some relief from the established production levy.

The Company was particularly insistent that it be in total control of the Halse Hall alumina refinery which was completed in 1973 with initial capacity of 550,00 tons of alumina and with provisions for future expansion up to 1,650,000 tons. According to the Managing Director of the Alcoa subsidiary in Jamaica, "Alcoa needs to have control from raw material source to the alumina plant, in view of its recent investments in expansion".

In response to Alcoa's basic requirements and in compliance with the priorities of Jamaica, the Government proposed the conversion of its claims to 51% of mining assets to a 6% equity in the whole overall operations of the Company in Jamaica. This forms the basis of the agreement described below. All surface lands will be purchased by the Government from Alcoa at written down book value. The Government undertakes to lease to the Company such lands as are necessary to its mining operations for the next forty years, with provisions for expansion of present levels of Alcoa operations. The major provisions of the agreement are:

/ i) The Government

i) The Government is to acquire all mineral and non-operating lands held by Alcoa comprising some 7,000 acres, for an amount not exceeding the original acquisition cost of 5 million dollars. Payment by the Government of Jamaica for land acquisition is to be made by a 10% initial payment in US dollars, the remainder to be paid in nine annual installments at 7% interest on the unpaid balance.

ii) The Government is to acquire 51% of the mining assets of estimated replacement value of 18 million dollars(at written down book value of approximately 8 million dollars). Payment to be made by a 10 per cent initial transfer in US funds, the remainder to be paid in nine annual installments at $8\frac{1}{2}$% interest on the unpaid balance. This converts to a 6% interest in the joint venture partnership (Jamalco) which will operate all mining, regfining and shipping facilities presently belonging to Alcoa in Jamaica.

iii) Alcoa is granted a special mining lease which will make available to the Company bauxite sufficient for forty years of operations based on the present capacity of the alumina refinery (550,000 tons) with provisions for expansion.

iv) The production levy was fixed at $7\frac{1}{2}$% of the annual realized price of aluminium ingot for a period of eight years from January 1st, 1976 to December 31st, 1983, after which is open to review.1/

v) The Government of Jamaica and Alcoa Company agreed to a Joint Venture partnership between Jamaica Bauxite Mining Ltd. (6%) and Alcoa Minerals of Jamaica, Inc. to be called "Jamalco". Under the terms of this agreement, each party is solely responsible for the marketing and other disposition of its Alumina Entitlement, i.e. "nothing shall limit or otherwise restrict any Member's right to sell bauxite or alumina delivered to it by the association (Jamalco) at such price, to such persons and such terms and conditions as such Members in its sole discretion shall determine". Jamaica's entitlement is 33,000 tons of alumina.

1/ See later changes indicated in part 1.c) above.

/ vi) Either partner

vi) Either partner of the Jamalco joint venture may undertake expansion of the existing plant in increments of roughly 300,000 tons per year to a maximum total capacity of the refinery of 1,650,000 tons per year. This gives Jamaica the opportunity of acquiring a majority share in the joint venture, provided Jamaica puts up the capital for expansion.

vii) Alcoa retains the management function of the Joint Venture Jamalco and supplies technology in accordance with a Technology License Agreement between the Jamalco partners.

viii) Any expansion by Jamaica Bauxite Mining Limited of the present capacity of the alumina refinery (550,000 tons) will have to be constructed by the Alcoa Company, on the terms of an Engineering and Construction Contract which forms part of the Jamalco Venture Agreement using the proprietary technology of the Alcoa Company.

ix) Jamaica will have two members on the total of seven persons in the Executive Committee of Jamalco.

x) Alcoa will on completion of the necessary enabling legislation and upon the full restoration of the Halse Hall alumina plant, subsequent to the major explosion of 1976, withdraw proceedings filed with the International Centre for the Settlement of Disputes (ICSID). The Agreement provides for settlement of disputes either in the Courts of Jamaica, or by special Arbitration procedures by a tribunal of three persons, one to be nominated by each of the two partners and a neutral Chairman to be agreed upon by both parties. In the event of failure to agree on a Chairman of the Arbitration Tribunal, such a Chairman shall be appointed by the President of the Law Society of England.

b) <u>The agreement with Alcan and the Jamalcan joint venture</u>

The agreement between the Jamaica Government and Alcan Ltd. (September 25th, 1978) is similar to the agreement between Jamaica and Alcoa. Major points of differences are:

i) The Government will acquire all Alcan's mineral lands at net book value of approximately 7.5 million dollars.

ii) The Government will acquire a 7% interest in Alcan's integrated Jamaican mining and refining operations at book value of 4.4 million dollars, payable in ten annual installments at $8\frac{1}{2}$% interest on the unpaid balances.

/ iii) Both parties

iii) Both parties will contribute their respective interests to a joint venture partnership to be called Jamalcan whose annual rated capacity is 1,095,000 tons of alumina, with the Government's share being 76,650 tons. Alcan will be the managing partner and Jamalcan will be directed by a seven member Board on which Alcan will have five directors and Jamaica Bauxite Mining will have two.

iv) The Government will purchase a 7% interest in Alcan's farming enterprises (beef, dairy and citrus), Alcan will continue to manage the farming operations.

v) The bauxite levy applicable to Alcan will be fixed at 7.5% until December 31st, 1983.1/

vi) All other provisions are similar to the Alcoa agreement. Alcan however, is unable to write off that portion of the production levy calculated to be equivalent to a corporation tax, because Alcan is a Canadian company and is thus not eligible for the advantages offered to U.S. Companies under the Western Hemisphere Trading Concessions, by the Government of the United States. For this reason, the production levy is more burdensome to Alcan than it is to the U.S. Incorporated Companies.

c) <u>The agreement and partnership with Kaiser</u>

The major terms of the agreement from February 2nd, 1977, are as follows:

i) Kaiser will sell to the Government of Jamaica for book value of approximately 15 million dollars the 48,000 acres of bauxite lands not required for plant operations. Payments by the Government will be made in ten equal annual installments with a 7% charge on the unpaid balance.

ii) Kaiser will sell 51% of its mining assets to the Government of Jamaica for approximately 11 million dollars at written down book value. Payment is to be made in ten equal annual installments at an interest rate of $8\frac{1}{2}$% on the unpaid balance.

iii) Kaiser will receive rights to a forty year supply sufficient for its aluminium facilities at Gramercy and Baton Rouge in the United States. In return for these rights, Kaiser Bauxite will pay annually 7% of the Government's purchase price for the land under mining lease.

1/ See again the changes indicated in part 1. c) above.

/ iv) Kaiser is

iv) Kaiser is to pay the Production Levy of 7.5% on the average realized price of primary aluminium and be entitled to a yearly reduction of one half per cent on the production levy, subject to the condition of minimum bauxite production level (3 million long dry tons) and world sales of aluminium based on Jamaican bauxite of not less than 500,000 short tons.

v) In order to permit Kaiser's claim on tax credit allowable against United States Income Tax liabilities applicable to operations in Jamaica, a nominal profit per long dry ton of bauxite disposed of by Kaiser Bauxite, and not utilized in the manufacture of alumina in Jamaica, is set as follows: a fixed amount of 3.07 dollars plus a variable amount initially set at 1.92 dollars to be indexed to the base price of aluminium ingot as of January 1st, 1977.1/ Corporation tax payable to the Jamaican Government in US funds calculated on this nominal profit, will be credited against the production levy as indicated above. The royalty payable by Kaiser's is fixed at fifty Jamaican cents per long dry ton payable in US dollars, if so requested.

vi) A new partnership is to be established between Jamaica Bauxite Mining Ltd. (JBM - 51%) and the Kaiser Bauxite Company, denominated Kaiser Jamaica Bauxite Company, which will conduct mining operations on behalf of Kaiser Bauxite. The partnership shall have an Executive Board consisting of eight members, four to be appointed by JBM and four by Kaiser Bauxite, Kaiser Bauxite will serve as Managing Partner in accordance with a Management Agreement between the partnership and Kaiser Bauxite.

vii) Insofar as JBM is in effect a "sleeping partner" and the operations of the partnership will not differ from the previous operations of the Kaiser Company on Jamaica, Jamaica will receive 14.68% on its paid up capital for the first 15 years of the agreement, and 10% thereafter.

1/ Similar arrangements apply to the other U.S. Companies Alcoa and Reynolds.

/ viii) By a

viii) By a Mining Agreement between the partnership (Kaiser Jamaica Bauxite Company) and the Kaiser Bauxite Company, the partnership will conduct mining operations for Kaiser in return for an annual mining charge per ton determined by dividing the partnership expenses by the aggregate number of tons loaded for shipment on behalf of Kaiser Bauxite in a calendar year.

ix) The Government is entitled to expand production of bauxite by the partnership provided that it raises all the funds necessary to finance acquisition of additional facilities. The Government will take for its own use or sale all bauxite produced as a result of such expansion at a mining charge determined the same way as that paid by Kaiser Bauxite. If the Government expands production of the partnership it will pay Kaiser Bauxite an annual charge for use of Kaiser Bauxite's share of the partnership's assets.

d) The agreement and partnership with Reynolds

The agreement between the Government of Jamaica and the Reynolds Metal Company (March 31st, 1977) is similar to the Agreement with Kaiser. The major points of difference are:

i) Reynolds (Reynolds Jamaica Mines) will sell to the Government of Jamaica all its land holdings and agricultural assets. These comprise 65,000 acres and were worth a net book value of approximately 7,300,000 dollars at December 31st, 1977. In addition, Reynolds will sell its agricultural inventories with a net book value of approximately 3 million dollars. Reynolds agricultural assets include large herds of cattle and other livestock. Terms of payment are similar to the Kaiser Agreement.

ii) Reynolds Jamaica Mines will sell to the Government a 51% interest in its property, plant and equipment, at the book value of approximately 6,800,000 dollars, retaining the resting 49%. Terms of payment by the Government are similar to the Kaiser agreement.

iii) Production levy provisions for the payment of Income Tax, paid in Jamaica and deductible in U.S.A., are similar to the Kaiser Agreement, except insofar as the nominal profit per long dry ton of bauxite disposed of

/by Reynolds

by Reynolds and, not used in the manufacture of alumina in Jamaica, is less than in the case of the Kaiser Company. Profits per long dry ton for income tax purposes are composed of a fixed amount of 3 dollars plus a variable amount established at 1 dollar, as of January 1st, 1977.

iv) The partnership between Jamaica Bauxite Mining (51%) and Reynolds Jamaica Mines Ltd. (49%) will be called Jamaica Reynolds Bauxite Partners. Arrangements are identical with the Kaiser Agreement, with the exception that Jamaica Bauxite Mines will receive only 12% per annum on its investments for the use of its 51% interest in the mining assets. Reynolds will manage the operations of the partnership for the first seven years, under a management contract and the Reynolds Jamaica Mines Ltd. will receive the entire output of bauxite by the partnership in return for a Mining Charge.

The formal implementation of the joint ventures and partnerships had been undertaken in late 1979 (Jamalcan and Jamalco) and in February, 1980 (Kaiser Jamaica Bauxite Company and Jamaica Reynolds Bauxite Partners).
The public enterprise JBM (Jamaica Bauxite Mining), disposed at the end of 1980 of some 48 million Jamaican dollars in investment funds (at cost) in joint ventures and partnerships with TNCs and reached, in the same year, 72 million Jamaican dollars in total sales.1/

1/ See, JBM Financial Statements, 31st December, 1980

/3. Co-operation and

3. Co-operation and joint ventures with other countries of Latin America

In this section of the report are overviewed the initiatives and negotiations of the Government of Jamaica to establish joint venture and sales agreements with, both - producer and consumer countries of the region.

a) The joint venture with Guyana and Trinidad and Tobago

The project of a regional smelting capacity as a joint venture between Trinidad and Tobago, Guyana and Jamaica, negotiated since 1974 among the governments of the three countries was supposed to develop in a two phase programme: Phase I consisting in a 200,000 ton smelter in Trinidad based on its natural gas reserves and, Phase II, consisting in an other, 200,000 ton smelter in Guyana based on its hydroelectric power potential. The alumina feedstock had to be supplied by Jamaica, as well as, Guyana. Ownership of the Trinidad smelter project was to be on a 33-33-34 % basis, with no equity partnership by TNCs, but with Kaiser Co. undertaking its construction. In the case of the Guyana smelter the ownership was to be as follows: Guyana 52, Trinidad 24 and Jamaica 24%.

The iniative, originated in the 1974 climate of the new bauxite production levy and the setting up of the International Bauxite Association, did not materialize in the seventies. After, in early 1975, Jamaica announced the proposal to construct the Jamaica-Mexico-Venezuela alumina-aluminium complex,1/ the Government of Trinidad and Tobago expressed his displeasure and, finally, in 1977, took the decision to undertake the project on their own, including an option for Guyana and Jamaica to participate and supply alumina.

b) The joint venture with Mexico

In 1975, the Government of Jamaica and Mexico entered into negotiations on a joint venture project, whereby Jamaica would provide alumina for an aluminium smelter in Mexico with a capacity of some 160,000 tons of aluminium. The preliminary agreement provided for the establishment of two joint venture companies, one to produce alumina in Jamaica (Javemex) and the other to produce aluminium in Mexico (Jalumex). Jamaica had to participate with 29% in the

1/ See points b) and c) below.

/ownership of

ownership of the Mexican smelter Jalumex and Mexico with 51% with resting 20% reserved for other partners, including a TNC to construct the smelter. On the other hand, Mexico agreed to take a 29% interest in the Jamaican Alumina Refinery project (Javemex) being Jamaica's share 51%, Venezuela's 10 per cent; and reserving for other parties the resting 10%. The last ones might have been a TNC or a third contractual purchaser of alumina, such as Algeria.

The Javemex alumina refinery was to be located in South Manchester and was expected to be completed and come into operation in late seventies. Construction was to have been contracted to one of the alumina TNCs operating in Jamaica, probably Kaiser.

In 1978, the Government of Mexico withdrew from all contractual agreements relating to the Jalumex smelter project owing to the problems experienced by both countries in financing their shares of the venture, and an adverse report by Alcan on the escalation of costs of the Mexican smelter. The later TNC had been selected to construct the smelter.

As a result of Mexico's decision to withdraw from the project, Javemex ceased to exist and had been absorbed into Jamaica Bauxite Mining Ltd. (the state owned subsidiary of the Jamaica National Investment Corporation). This decision was aimed at retaining the expertise built up within the national industry rather than dismantle the organization and lay off the qualified staff. Initiatives to reactivate the South Manchester alumina refinery project are ultimately related to long term supply contracts between Jamaica and non-traditional purchasers. These will be described below with respect to negotiations involving Venezuela, Algeria, Hungary, the Soviet Union and Norway.

c) Commercial agreement with Venezuela

Venezuela had been developing an aluminium smelting capacity likely to amount to some 520,000 ton per year, by the mid 1980's. Present capacity is 112,000 ton per year through a joint venture between the state-owned CVG and the Reynolds Company, located at Puerto Ordaz. Alumina is being supplied from Reynolds U.S. refineries and hydroelectric power provided by a wholly

/owned CVG

owned CVG subsidary. The second smelter, - New Venalum with a capacity of 70,000 ton per year was planned to expand to 280,000 ton per year by 1982. It is located at San Feliz in the Guyanas and owned 80% by CVG with the remaining 20% shared among five Japanese companies which have options on most of the output. As Venezuela's domestic aluminium consumption is estimated at approximately 80,000 ton per year it will become an important exporter in the next years. Furthermore, considerable bauxite deposits have been discovered in the Sierra de Los Pijiguanos Zone, in Bolivar State (with total reserves estimated at 500 million tons with average aluminum content of 48.9%). Venezuela's new found bauxite deposits cannot, however, come on stream until the mid or late 1980's. Meanwhile there are plans for the construction of an alumina refinery at Puerto Ordaz, with initial capacity of one million ton per year, based on imported bauxite and constructed by Interalumina with Alusuisse technology. The later TNC is also undertaking a study relating to the exploration of the bauxite deposits and the feasibility of constructing the above mentioned alumina refinery. It is against this background that the sales contracts between Jamaica and CVG are to be viewed.

Negotiations between Jamaica and Venezuela were initiated in 1975, and at that time included the above characterized participation in the Javemex alumina refinery project. In August of 1977, Jamaica and Venezuela signed a seven year agreement whereby Jamaica undertakes to supply Venezuela with a total of one million tons of alumina, with annual delivery of 150,000 tons for the first six years and final 100,000 tons in 1984.

The Jamaica-Venezuela sales agreement had been renegotiated in 1979, as to the terms comparable with prices offered by Venezuela's other alumina suppliers - Metallgessellschaft, Billiton and Phillips Brothers, acting as purchasing agents for the Venezuelan state company. Another cause of the uncertainty had been the uncooperative attitude by Alcan toward the "back-to-back" agreement to produce and sell the alumina destined for Venezuela. Alcan had at the end of 1970's sufficient idle alumina capacity to produce and deliver the required alumina to Venezuela (see again table 12).

/4. <u>Co-operation with</u>

4. Co-operation with socialist countries and Algeria

Following the above described collapse of the joint venture projects with other countries of the region, the Government of Jamaica has been exploring the possibilities of long term contracts on alumina sales to non-traditional markets of the Soviet Union, Hungary and Algeria.

In 1979 a long term agreement had been reached with the Soviet Union, for a sale of 250,000 tons of alumina per year, starting in 1984, the year in which the new alumina plant at South Manchester would come on stream. Additionally, previously negotiated long term agreements with Hungary and Algeria for the sale of 150,000 tons yearly to each of these two countries, also commencing in 1984, have been reconfirmed. Thus Jamaica would deliver, since 1984, some 550,000 tons of alumina per year to non-traditional markets, a volume almost corresponding to the projected capacity of the new alumina refining plant.

None of these agreements are as yet contractual. Algerian alumina requirements are contingent upon the construction of a 127,000 tons per year smelter to be fuelled by natural gas and constructed with Soviet Union technology and credits, at M'Sila, about 100 miles from Algiers. Hungarian long term alumina purchases relate also to plans to expand that country's aluminium industry. Hungary's commitments to buy Jamaican alumina are contingent upon the agreement to utilize Hungarian technology, machinery and equipment for the construction of the new South Manchester plant. Aluterv-FKI of Hungary which did the feasibility study on the Javemex project, are the designers and process engineers, and Hungarian export credit facilities would amount to 250 million dollars covering the supply of necessary equipment. In addition to suppliers credit for plant and equipment provided by Hungary, there would be need to raise additional credit of some other 250 million dollars. Finally, in the case of the Soviet Union long term agreement, important questions relating to freight and price - have still to be settled. The Government of Jamaica had been intending to expand its Merchant Marine, through negotiations with Norway, to benefit from the long term alumina contracts.

/In addition

In addition to the long term agreements described above, the Soviet Union and Hungary are supposed to purchase 150,000 and 50,000 tons per year, respectively, for five years, starting in 1980. As in the case of the Venezuelan sales agreement described above, the alumina to be sold to the Soviet Union and Hungary should be obtained from the TNCs operating in Jamaica (back-to-back agreements and production sharing arrangements with Alcoa and Alcan).

5. Jamaica Bauxite Institute 1/

In the preparation, performance and monitoring of the above analyzed governmental policies a very important role pertained to the Jamaican Bauxite Institute (JBI).

In the latter part of 1972, the Government had set up a National Bauxite Commission of private and public sector specialists in a variety of fields - tax, law, business, finance, diplomacy and earth sciences. The Commission's task was to advise the Government on how best to increase the benefits of the industry to the country. It was quickly apparent that the data base for arriving at sound recommendations was inadequate. If the government were to bargain with the aluminium companies with anything approaching comparable strength it needed information of a kind and quantity it was never previously concerned with. And it needed that sort of information continuously.

The new policies started in 1974 needed to set up a permanent organization to take over and expand the groundwork laid by the National Bauxite Commission. It was felt that this organization needed far more flexibility than would be possible in the traditional civil service bureaucracy. Thus it was that the Jamaica Bauxite Institute began operation in early 1976 and was registered as a limited liability company in August of that year.

1/ Based on: Hu Gentles, "The Development of Jamaica Bauxite Institute", The JBI Journal, Vol. 1, Nº 1, November 1980.

/The work

The work of the Institute is supervised by a board appointed by the Government while its day-to-day operations are run by an Executive Director, to whom six divisional heads report. (See organizational chart in table 13). Some of the highlights and achievements of the JBI are indicated below.

a) Mapping and managing bauxite reserves

In the past the bauxite-alumina TNCs were the only ones who knew how much bauxite there was in Jamaica and only in the lands each controlled. When negotiations, in 1974, began, the information provided by the companies suggested total reserves between 600,000 and 800,000 tons. With control of some 200,000 acres of reserve lands passing to the state the JBI, by means of geological survey, mapping and laboratory analysis, had been able to establish Jamaica's measured reserves at 2,000 million tons.

Three essential issues are involved in the managing of the reserves: i) rational allocation for mining; ii) removal of settlements and roads from ore-bearing lands; iii) optimum use of lands before, during and after mining.

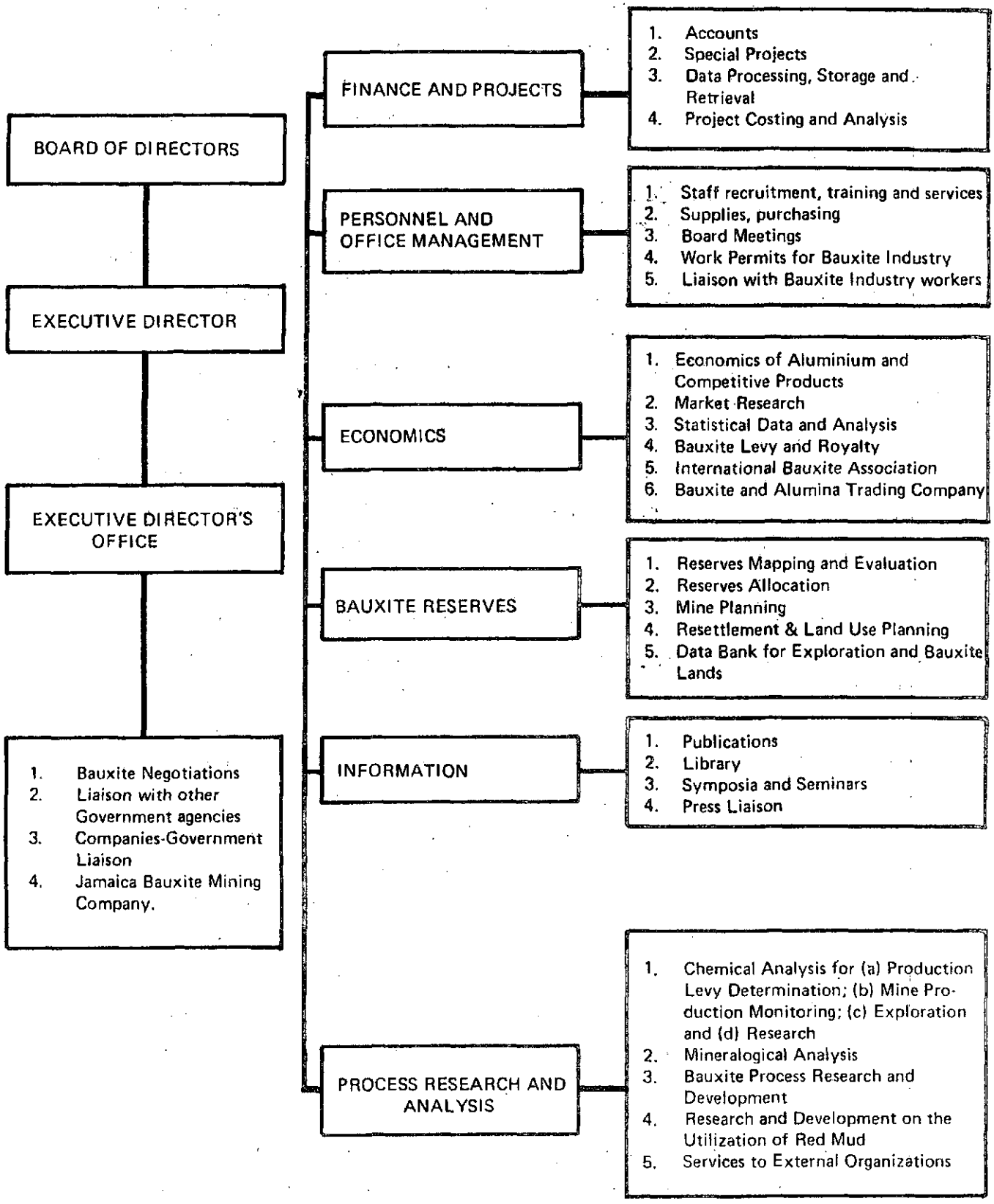
Competitive private acquisition of reserves had often resulted in a company's holdings being scattered, and single orebodies divided by property fences. The disadvantages to the mining companies are obvious. From the government's point of view the disparity in the size of various companies' holdings was a disadvantage since one company could use its surface rights as a landowner to tie up 100 years of reserves while another company only had 10 years' reserves available. A second potential problem was that the highest grades of reserves were liable to be used first leaving behind the less attractive. Furthermore, some reserves were tied up in small peasant holdings, hamlets and roads, one result of which was that valuable ore was frequently left behind after a mining area was closed.

With the government adding the surface right of property owner to its sovereignty over the mineral, it is now possible to allocate reserves within each company's natural "area of influence" without regard to previous property boundaries. Mining plans are drawn up between the JBI and the companies five years in advance, resettlement of displaced small-holders can be tackled en bloc so as to preserve communities, and reserve lands can be put to suitable agricultural use before mining and afterwards where possible.

/Table 13

Table 13

JAMAICA BAUXITE INSTITUTE – ORGANIZATION CHART



Source: JBI.

/It is

It is not suggested that these are wholly new departures. The early mining laws had required that agricultural use be made of "non operational" lands. Most of the companies had carried on successful livestock farming and Alcan had developed an admirable land tenancy scheme for small farmers. The mining regulations had also obliged the companies to stack the top soil before mining and use it to reclaim the mined out pits afterwards. But land use in general and re-settlement approaches in particular had varied with the policy and personnel of the different companies. The new dispensation has brought all the issues of reserve lands management under a national, standard policy with economic advantages to both companies and government. The human problems of re-settling small-holders have not disappeared by any means, but many longstanding and acrimonious disputes have been resolved by means which are as mindful of social as of economic imperatives.

b) Process research

While the Jamaican workforce in the bauxite-alumina industry constituted something of a labour aristocracy inside the country the levels of skills remained at artisan level and engineering, research and management were largely the domain of expatriate staff. Technology transfer was slow in these areas. This was partially a function of the greater skills required, to be sure. The result, however, was that the Government had no independent source of information when questions of technology were at issue. This lack the JBI laboratories set out to remove.

The immediate issue was to verify the amount of ore fed to process and the alumina recovery therefrom since this was one of the bases for calculating the levy. Wet chemistry methods of analysis were soon complemented by differential thermal analysis, x-ray diffractometry and other instrumental methods. In addition to routine verification for the levy, the laboratory has carried out the essential sample analyses for a proper evaluation of reserves and is well into profounder work connected to the general processing characteristics of Jamaican bauxites and the handling of red mud effluent. This is made possible by the ability to simulate various operations at the alumina plant.

/c) Economic research

c) Economic research and financial analysis

One example of the work done in this area is the yearly forecast of aluminium ingot prices. The accuracy of the forecast has a direct bearing on Government revenue from the bauxite production levy. The levy is paid quarterly while the average price realized by the companies for aluminium ingot over a given year cannot be known for certain until the year is complete. At the end of the year, adjustments for underpayment or overpayment are made. However, if the forecast of ingot prices is less than actual the government will be denied the use of revenue due to it until the adjustment is made. Conversely, if the forecast exceeds actual, the Government will then have to reimburse revenues it has already spent and the companies will have been denied some working capital until the adjustment. Variations of one cent may add up to three or four million dollars in either case. The JBI's record in forecasting ingot prices is therefore a useful test of the quality of its economic and financial work.

In general terms, JBI is elaborating economic and financial analysis and projections of the industry and TNCs behaviour, preparing negotiations with TNCs and governmental organizations of other producer and consumer countries, as well, etc.

d) The organization and use of information

The crux of JBI's achievement is information. That, ultimately, is its stock-in-trade: scientific and economic information, about a great and, one of the more secretive, industries. Looking back a mere five years or so it now seems amazing that so little was known by Jamaicans, even at the highest level, about the disposition and quality of the island's ore reserves, Jamaica's position in relation to other bauxite producers, the state of the aluminium industry - its markets, its technology and its costs. Today, not only can the Jamaican Government negotiate with the aluminium companies from an informed position but it can seek its own markets and eventually, its own plants.

The generation of information for government policy has been accompanied by a strong programme of public education from the inception of JBI, organized through mass-media, workers unions, schools, etc. Finally, JBI is now in

/a position

a position to offer consultant services to clients other than the Jamaican Government and, in fact, has already earned fees from an overseas contract in bauxite reserves evaluation.

In the development and achievements of IBI was of great importance the International Bauxite Association which is located since its establishment in 1974, in Kingston, Jamaica. Some of the outstanding features of this producer countries organization are outlined below.

6. International Bauxite Association 1/

a) Goals and position in the world industry

The International Bauxite Association was created in 1974 through the Conakry Agreement which set out, among others, the goals which the Organization hopes to achieve. In essence, these objectives are:

- to promote the orderly and rational development of the bauxite/alumina/aluminium industry in Member Countries;

- to secure for Member Countries fair and reasonable returns from the exploitation of their bauxite resources, bearing in mind the interests of consumers;

- finally, to safeguard the interests of Member Countries in relation to the bauxite/alumina/aluminium industry (and the TNCs which are dominating this industry).

The potential importance of IBA in the world aluminium industry may be illustrated by the aggregate position of the eleven member countries 2/ in the total of possible world bauxite reserves, 72%, world bauxite and alumina production, 75% and 47% in 1979, respectively and; world bauxite exports, 90% in 1978 (see tables 14 - 16).

1/ Based on: M. Souare, Director of Economics and Statistics - IBA Secretariat,"The IBA is not a cartel", IBA Review, Vol. 6, Nº 3, January - March 1981.

2/ See their enumeration in table 16 below.

/Table 14

Table 14

IBA: SHARE OF WORLD BAUXITE RESERVES (1980)

(Thousands of metric tonnes)

Country Group \ Volume & %	Total measured reserves	% of total measured reserves	Total possible reserves	% of total possible reserves	World Reserves	
					Volume	%
World	16,267	48,4	17,344	51.6	33,611	100
IBA Countries	11,257	46.7	12,833	53.3	24,090	72
Non-IBA Countries	5,010	52.6	4,511	47.4	9,521	28

Source: IBA.

Table 15

IBA: BAUXITE AND ALUMINA PRODUCTION (1975-79)

(Thousands of tonnes)

			1975	1976	1977	1978	1979
Bauxite	World		77,058	80,460	84,583	83,527	87,817
	IBA	Volume	54,970	58,470	62,308	62,228	65,499
		%	71	73	73	74	75
	NON-IBA	Volume	22,088	21,990	22,597	21,393	22,318
		%	29	27	27	26	25
Alumina	World		-	22,663	25,186	25,144	26,034
	IBA	Volume	-	10,166	11,144	11,276	12,349
		%	-	44.8	44.2	44.8	47.4
	NON-IBA	Volume	-	12,502	14,042	13,868	13,690
		%	-	55.2	55.8	55.2	52.6

Source: IBA.

/Table 16

Table 16

IBA: SHARE OF WORLD BAUXITE EXPORTS (1974-1978)

(Thousands of metric tonnes)

		1974	1975	1976	1977	1978
Australia		7,672.2	7,965.7	6,858.7	7,306.4	6,422.1
Dominican Republic		1,489.0	909.9	627.2	760.0	756.6
Ghana		398.3	320.4	260.0	275.0	330.0
Guinea		3,961.0	7,269.0	9,281.8	10,100.0	9,168.0
Guyana		2,139.5	2,154.0	1,809.0	1,659.0	1,563.0
Haiti		667.5	514.0	615.4	587.7	587.7
Indonesia		1,261.0	973.4	872.0	1,138.0	911.1
Jamaica		8,004.0	5,482.3	6,284.0	6,090.0	6,195.0
Sierra Leone		741.0	655.0	600.0	700.0	700.0
Suriname		4,273.9	2,249.4	1,881.5	2,114.0	2,500.0
Yugoslavia		1,611.3	1,283.0	1,023 9	909.0	676.1
IBA Total	Tonnage	30,607.4	29,776.1	30,113.2	31,639.1	29,809.6
	% world	86.4%	90.4%	91.5%	91.2%	90.3%
Non-IBA	Tonnage	4,821.8	3,163.3	2,803.66	3,052.1	3,199.2
	% world	13.6%	9.6%	8.5%	8.8%	9.7%
World (tonnages)		35,429.2	32,939.4	32,916.9	34,691.2	33,008.8

Source: IBA on base of World Bank data.

/b) Operating methods

b) Operating methods in pricing of bauxite and alumina

It should be pointed out first of all that the Association has never taken imperative pricing decisions which its members are obliged to implement. The organization has always made recommendations which participating countries are not, in theory, compelled to carry out.

IBA pricing recommendations only apply to base-grade bauxite, defined from the very start as ore containing 45% available alumina and 4% reactive silica. The recommended prices are, therefore, CIF minimum prices which, in order to be observed by member countries, must first be readjusted in relation to base-grade bauxite.

A precise bonus and penalty system makes it possible for each member country to determine the CIF price to be applied to its bauxite exports in accordance with the Association's recommendations. The determination of the minimum price to be implemented by individual Member Countries requires the comparison of the grade of the exported ore to that of base-grade bauxite and the calculation of bonuses and penalties indicated on the basis of a comparison of available alumina and reactive silica contents. The method adopted involves determining percentage point differences in contents between base-grade bauxite and the exported ore, calculating the value of percentage points variations above or below the base level, and adding or deducting these values to/from the recommended minimum price in order to arrive at the minimum applicable for each country for the period on which the recommendation was based.

The IBA only recommends minimum prices, which means that members enjoy a fair amount of latitude, provided that they sell their bauxite above rather than below the recommended minimum CIF price.

Each recommendation is made on the basis of numerous and extremely detailed studies on all aspects related to prices and markets in the bauxite/alumina/aluminium industry; in fact, the Association only recommends prices which the market can tolerate. So far, such recommendations, made on an annual basis, have been limited to the North American and European markets.

/In an

In an effort to protect the income of its members against inflation and price fluctuations, the Association adopted in 1979 the principle of indexation of bauxite and subsequently alumina prices to the average price of 99.5% primary aluminium ingot as published by American Metal Market. This system is underpinned by a floor price adopted for bauxite, which corresponds to an ingot price of 59¢ per lb., below which member countries are recommended not to sell their bauxite irrespective of any reductions in the price of ingot. This floor price was set at 30.00 dollars for 1981 (an increase from the previous level of 24.00 dollars). The tables 17 and 18 indicate the various pricing recommendations made by the IBA since 1976.

Since 1980, IBA has been recommending a CIF price range for alumina. The minimum price was set in a range of between 14% and 16% for 1980 and between 16% and 19% for 1981. In the case of bauxite as well as alumina, these prices have, since 1979, applied to all markets excepting Japan (see table 18 again).

c) Limitations of IBA

The IBA member countries have tried their best to observe these recommendations, which were formulated in their interest. However, these recommended prices have never disturbed the operations of the bauxite/alumina/aluminium industry, and, in certain cases it could even be said that they have been favourable to the transnationals, whose financial position has continued to improve over the past years.1/

It should also be noted that IBA price recommendations are not always observed either by the TNCs or by bauxite-producing countries, unlike the situation prevailing in the petroleum industry in which prices set by OPEC are observed, not only by oil companies but also by the producing countries.2/ Therefore, while it is true that OPEC plays a leading role in the setting of oil prices, it cannot be said that IBA plays the same role in the bauxite industry.3/

1/ See Chapter III.2. below.

2/ Sometimes the prices fixed by oil producer countries differ slightly from established OPEC prices. However, the important point is that all countries increase their prices each time OPEC decides on a price increase.

3/ According to the specialized press "transnationals have regarded the IBA as a paper tiger, because of its inability to agree on fundamental issues, such as a pricing policy" (see, Latin America Commodities Report, CR-82-09, 7 May 1982).

/Table 17.

Table 17

IBA: RECOMMENDED MINIMUM PRICE PER TON OF EXPORTED BAUXITE

Year	
1976 a/	2 FOB Minimum prices: 15 and 20 dollars
1977	CIF Price of 24 dollars (North American market only)
1978	CIF Price of 24 dollars (North American market only)
1979	2% of the average price of aluminium ingot
1980 b/	2% of the average price of aluminium ingot
1981 b/	2% of the average price of aluminium ingot

Source: IBA

a/ In 1976, Member Countries were divided into two categories. The first group, consisting of Guinea, Guyana, Jamaica, Haiti, Dominican Republic, Suriname and Yugoslavia, had a recommended FOB minimum price of 20 dollars per ton of exported bauxite, while the second group, comprising Ghana, Sierra Leone and Australia accepted a minimum price of 15 dollars/t.

b/ Since 1979, bauxite prices have been indexed to the price of primary aluminium ingot. In real terms, the corresponding CIF minimum prices for bauxite, as calculated each quarter by the Secretariat, were as indicated in Table 18.

Table 18

RECOMMENDED CIF MINIMUM PRICES FOR 1979 AND 1980 (US$/t)

Product / Year	Bauxite (2% of the price of ingot)				Alumina (14% - 16% of the price of ingot)			
	1st Qt.	2nd Qt.	3rd Qt	4th Qt.	1st Qt.	2nd Qt.	3rd Qt.	4th Qt
1979	25.37	26.24	26.93	29.15				
1980	29.80	30.94	30.86	33.46	208.61-238.41	215.58-247.51	216.05-246.92	234.21-267.66

Source: IBA

/III. CONCLUSIONS:

III. CONCLUSIONS: NEGOTIATING CAPACITY AND DISTRIBUTION OF GAINS AT THE BEGINNING OF 1980s

1. Negotiating capacity

a) Main policy objectives and outcomes

The main objectives of the Jamaican policies and negotiations with aluminium TNCs, pursued in the second half of seventies and analyzed in depth above, were: a) to produce the redistribution of the bauxite and alumina industry gains in favour of the country's economy, through the imposition of bauxite production levy; b) to strengthen the sovereignity of Jamaica over its most important natural resource and the governmental negotiating capacity towards TNCs, through the nationalization of bauxite lands owned by TNCs and the establishment of joint ventures with the major TNCs, permitting further local industrial development with public sector participation in equity and production; c) to diminish the unilateral dependency on TNCs systems diversifying the local industry linkages (in production and marketing, technology, investment and finance), through the establishment of joint ventures with other countries of Latin America and stable co-operation and trade with "non-traditional" partners and markets.

In the early 1980s, these main goals have been accomplished only partially. The principal achievements were: substantial increase of the Government's foreign exchange revenues from the bauxite levy and hence of the returned value to the economy;1/ re-acquisition of non-operating lands in the bauxite industry and the possibility of their better agricultural use; greater knowledge on the Government's side on the technical and economic aspects of the industry resulting principally from the establishment and development of the Jamaica Bauxite Institute, and the public enterprise Jamaica Bauxite Mining Company (JBM) and their monitoring of the industry development and; finally, some direct marketing of alumina to the Soviet Union and Venezuela (235 000 tons to both markets in 1980, corresponding to 10% of total alumina exports of the country).

1/ See point 2. below.

/On the

On the other hand, the global negotiating capacity of the Government of Jamaica seemed to be, at the beginning of eighties, on worse terms than in the middle of seventies. First of all, the sluggish performance of the economy of Jamaica in 1973-1980 1/ led to its greater dependence on the bauxite industry in terms of GDP and export and fiscal revenues (see table 19). This structural dependence was aggravated by the decline in bauxite and alumina production stemming from negative reactions of major aluminium TNCs to the new Jamaican policies. Although they formally accepted the imposed bauxite production levy and, after some delays, the establishment of joint ventures with the Government, their main strategy was further "delinking" from Jamaican sources of bauxite and alumina and diversifying to the new leaders of the bauxite and alumina markets - Australia, Guinea and, perspectively, Brazil. (During the seventies the share in the world output of bauxite increased for Australia from 15% to 31%, Guinea from 4% to 14% and Brazil from zero to 2% meanwhile Jamaica decreased her share from 20% to 14% in the same period.)2/

The progressive diversification of four major TNCs (Alcan, Alcoa, Kaiser and Reynolds) from the Jamaican bauxite and alumina market, in the second half of seventies, is clearly perceptible in the table 20 (see indicators 1 and 2). Meanwhile the world wide primary aluminium production of the three TNCs (excluding Reynolds) increased substantially maintaining relatively high operating rates 3/, their sourcing of Jamaican bauxite and alumina has been declining leaving considerable idle capacities of their subsidiaries in that country.4/ Obviously, the governmental

---

1/ In 1973-1980, the GDP decreased by 18% and 25% in global and per capita terms, respectively and, in 1980, the balance of payments deficit and total foreign indebtedness corresponded to 10% and 77%, respectively, of the GDP in that year (see, ECLA Economic Survey, 1980, quoted in table 19).

2/ See V. Brown, L. Cooke and W. Hughes, "The Emerging Powers in the Aluminium Industry: Australia, Brazil and Guinea", J.B.I. Journal, Vol. I, Nº 2, July 1981.

3/ This occurred in spite of the world economic recession and was caused by buoyant demand for light metals related with increasing energy costs (e.g. automobile industry).

4/ Including Reynolds whose activities in Jamaica declined more in relatively terms than they did in global terms (see again indicator 1 and 2 in table 20).

/Table 19

Table 19

JAMAICA: CONTRIBUTION OF THE BAUXITE AND ALUMINA INDUSTRY TO THE ECONOMY (1970 - 1980)

Year	Percentage share in total:		
	Gross Domestic Product a/	Exports of Goods	Current Fiscal Revenues
1970	6.9	65.6	8.7 b/
1978	7.5	74.1	25.8
1980	8.5	75.9	25.1

Source: ECLA Economic Survey of Latin America, 1980, (E/CEPAL/G.1191), May 1982.

a/ Share of total mining sector in which bauxite and alumina industry participates with some 90%.

b/ 1973.

/Table 20

Table 20

FOUR MAJOR TNCs IN ALUMINIUM INDUSTRY: ECONOMIC INDICATORS WORLDWIDE AND IN JAMAICA (1974-1980)

	Unit	ALCAN				ALCOA				KAISER				REYNOLDS				4 TNCs TOTAL			
		1974	1977	1980	1974 =100	1974	1977	1980	1974 =100	1974	1977	1980	1974 =100	1974	1977	1980	1974 =100	1974	1977	1980	1974 =100
1. Production																					
a) Primary aluminium worldwide	000' ton	1,138	1,106	1,302	114	1,795	1,666	1,863	104	824	844	992	120	1,090	908	974	89	4,847	4,524	5,131	106
b) Jamaica																					
i) Bauxite	-"-	2,695	1,802	2,481	92	1,922	1,142	1,217	63	4,081	3,691	3,559	87	3,307	2,554	2,500	76	12,275	9,189	9,757	79
ii) Alumina	-"-	1,133	763	1,038	92	532	380	468	88	-	-	-	-	-	-	-	-	1,665	1,143	1,506	90
2. Operating rate																					
a) Worldwide	%	92	89	91	..	99	85	88	..	97	86	99	..	104	87	93	..	98 a/	87 a/	92 a/	..
b) Jamaica	%	100	76	92	..	100	68	88	..	97	85	85	..	89	67	81	..	95 b/	79 b/	84 b/	..
3. Promedium realized price index																					
a) Ingot and products worldwide	1974=100	100	133	..	217	100	149	..	212	100	148	..	222	100	147	..	221	100	144	..	218
b) Jamaican bauxite	1974=100	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	100	187	..	295
4. Total revenues																					
a) TNCs	Mill.US$	2,427	3,058	5,264	217	2,750	3,433	5,196	189	1,773	2,234	3,351	189	2,049	2,392	3,748	183	8,999	11,117	17,559	195
b) Government of Jamaica (taxes) c/	-"-	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	185	186	206	111
Percentage of TNCs revenues	%	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	1	..
5. Net income of TNCs	Mill.US$	182	205	542	298	175	195	470	269	111	112	248	223	114	86	180	158	582	598	1,440	247
Jamaica Government income = 100	%	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	32	31	14	..

Source: The IBJ Journal, vol.I, Nº2, July 1981 and IBJ other data.

a/ Total operating capacity of the four TNCs was 4,933; 5,215 and 5,581 thousand tons, respectively.
b/ Bauxite only and including ALPART and Revere (1974, the last one). Total operating rate in alumina was 93%, 72% and 86% respectively.
c/ Production levy and royalties (in U.S. dollars).

/participation in

participation in joint ventures with the four TNCs was not in a position to reverse this negative trend playing a limited role of a "sleeping partner".

Unfortunately, the unilateral "delinking" of aluminium TNCs from Jamaica has not been outweighed, at least until the early eighties, by the originally projected joint ventures and co-operation with the governments of other developing nor socialist countries. In spite of prospective feasibility studies and many negotiations with the governments of Trinidad and Tobago, Guyana, Mexico, Venezuela and Hungary, the intended co-operation in alumina refining and aluminium smelting did not materialize and each of the individual countries, originally interested in "collective self-determination" development, followed its own way.

b) Factors of negotiating capacity

After reviewing these negative outcomes of some of the Jamaican initiatives of the middle of seventies, the question arises about the negotiating capacity factors which, at that time had not been taken in account, or underestimated, and resulted later in the known undesired outcomes. It is, of course, difficult to pinpoint all of them because of the short time-span dividing one from the analyzed events and the proper limitation of the present study in the economic aspects of this case. Nevertheless, the previous evaluation and the ongoing discussion in Jamaica 1/ allow some preliminary and tentative conclusions.

First of all, the imposition of the bauxite production levy, the nationalization of the bauxite lands pertaining to the TNCs and the majority participation in the mining assets stemmed from the sovereign right of the Government to dispose of the country's natural resources in a way deemed most appropriate for the nation's welfare. In this sense, the governmental measures were not-negotiable with the TNCs and constituted its "ability to create uncertainty, to unsettle an industry in which planning and predictability are the critical (TNCs, author's remark)

1/ See for example, Carlton E. Davis, "Some problems in managing Jamaica's bauxite resource", JBI, 1981.

/advantages derived

advantages derived from large-scale and integrated operations".1/ The base for the strong negotiating power of the Government, at that time, was the large aluminium TNCs investment tied up in Jamaica and their dependence on her bauxite and alumina resources.2/ Aware of this, the TNCs did not move out from Jamaica and limited themselves to minimize the costs of the Government's policies bargaining for the decrease of the levy rate, maximum compensation for the lands and assets purchased by the Government and exclusive managerial control of the new joint venture enterprises.

The weakened bargaining capacity of the Government in the late seventies, reflected in the diminished share of Jamaica in the TNCs bauxite and alumina sourcing and practically no new investment since 1974, was obviously related with several events, some of them unpredictable and of a conjunctural nature (world economic recession, industrial unrest and production and technology problems in Jamaica, etc.). Nevertheless, the main factor influencing the TNCs strategies and behaviour seemed to be the decrease of the competitiveness of the Jamaican bauxite and alumina industry in terms of, both, the perceived political risk and production (energy) costs.

i) The perception of political risk by TNCs

The perception of the political risk incurred by aluminium TNCs in the Third World producer countries may be usefully illustrated by some opinions of an outstanding U.S. industrial consultant and advocate of TNCs strategies:3/ "The need is for a more effective response by multinational corporations and their home governments to the Third World rhetoric, and the need to encourage the emergence in the Third World of a more factual minded and realistic leadership that will adopt more durable policies for attracting the huge investments from multi-nationals, and also from governments who want bilateral investment agreements to be respected... By enacting

---

1/ See, Joan A. Lipton, Bauxite in Jamaica: ownership and control in a partially nationalized industry, Institute of Latin American Studies of the University of Texas at Austin, Technical Papers Series - Nº 21, 1979.

2/ See again Part I.3. and table 3 above.

3/ See, Samuel Moment, Consultant, Bauxite: Toward Stabilization in the Turbulent 1980's, 1981, unpublished paper facilitated by IBA Secretariat.

/the bauxite

the bauxite levy of 1974, Jamaica broke all of the tax and price agreements that had been so laboriously and profitably achieved during my 18 years of service to that Government. Jamaica also broke its obligations to the World Bank's International Centre for the Settlement of Investment Disputes. There was no case whatever against the behaviour of the bauxite companies... Finally, it is in the interest of these countries and the IBA that pricing and tax policies on bauxite, alumina and electric power are not aimed at the rapid maximizing of government revenues in the short term but rather at long term levels that cannot be rigidly formulated in advance but must gradually evolve as countries compete for new investments from the aluminium industry... The IBA recommendations are impractical and discriminatory in proposing up to 50% higher prices on bauxite for countries outside of North America. They conflict with actual market conditions in various countries and in fact are not followed by important IBA members such as Guinea, Indonesia and Australia. Even if a uniform reference price were chosen for metal, such as the Alcan world export price, it would not meet the incentive needs for taxing and pricing bauxite and alumina to encourage development in Brazil, Australia, Guinea, and other countries. IBA pricing likewise has no meaning to countries that are offering years of income tax exemption to induce new projects. When profits are tax exempt, the IBA price is irrelevant either for transfer purposes within multinational corporations or for sales to third parties". The above quoted judgements offer a clear justification of the aluminium TNCs preference to concentrate their subsidiaries expansion and new investment projects in countries with relatively less political risk and stable development in detriment of "turbulent" ones of the Caribbean.1/ On the other hand, the flexible responses of the Government of Jamaica 2/ to the TNCs reactions and, especially, the renegotiation of the bauxite production levy initiated in 1979, should hopefully create the necessary incentives and new guarantees which would induce the aluminium companies to resume the previous production levels and, eventually, initiate new investment projects in Jamaica.3

1/ Other Caribbean countries, outside of Jamaica, suffered in the seventies also decline in their bauxite and alumina production (see the cases of the Dominican Republic, Guyana, Haiti and Suriname in table 16 above).

2/ See, Carlton E. Davis, "Evolving Flexible Responses to Changing Conditions in the World Aluminium Industry", Proceedings of Bauxite Symposium, Nº 4, quoted above.

3/ The results of these efforts were still not discernible in the middle of 1982 as the slackening world demand for aluminium led to production cuts in all TNCs subsidiaries in Jamaica during 1981 and the first half of 1982 leading to forecasts of a substantial production decrease in 1982.

/ii) Economic

ii) Economic competitiveness

The loss of Jamaican competitiveness in terms of production costs of bauxite and, especially alumina, represents obviously the most outstanding factor of the erosion of Government's negotiating capacity. As Jamaica depends almost entirely on imported fuel oil to supply her energy needs, the substantial and steady increase of fuel prices signified a heavy blow for the country's balance of payments and, especially, for the production costs of the bauxite-alumina industry. As may be seen in table 21, the share of mineral fuels in the total import bill of Jamaica increased from 6% in 1970 to 39% in 1980. In this last year, the bauxite and alumina industry consumed more than a half of the total fuel consumption of the country. Finally, the worsening of the terms of trade of the bauxite and alumina industry may be illustrated by the fact that in 1970 the unit bauxite price was 35% higher than a comparative oil price; ten years later, in 1980, this relation was completely reversed: the bauxite unit price corresponded to only 31% of the oil price (see again table 21, indicator 3). As a result the share of energy in total alumina production costs jumped to some 35 - 40%.1/ It is obvious, that bauxite producer countries with resources of cheap energy, like Australia and Brazil, have a decisive comparative advantage in comparison with Jamaica.2/ In this framework the Jamaican bauxite levy, which other major producer countries did not introduce, is considered by aluminium TNCs as an additional cost disadvantage of Jamaica.

1/ See, Latin America Commodities Report, CR-82-09, 7 May 1982.

2/ According to the same source, the Prime Minister of Jamaica, Mr. E. Seaga, suggested to the companies to reduce the energy cost of Jamaican alumina by at least a third switching to the use of coal. Alcoa reacted declaring that a coal - fired expansion of its refining plant would only be feasible if the existing operations were also converted - a cost which the Government would have to bear.

/Table 21

Table 21

JAMAICA: FUEL CONSUMPTION IN THE BAUXITE AND ALUMINA SECTOR (1979-1980)

	1970	1978	1979	1980
1. Minerals fuel imports, total				
a) Millions Jamaican dollars	..	197	335	470
b) % of total imports of goods	6.4	22.8	33.4	39.3
2. Fuel consumption by bauxite and alumina sector				
a) Millions barrels	..	7.7	7.9	7.9
b) % of total fuel consumption	..	47.0	48.0	50.7
3. Bauxite price in % of oil price	134.7	45.0	37.1	30.6

Source: ECLA Economic Survey, 1980 and JBI.

/iii) Lack of

iii) Lack of local finance resources

The decreased competitiveness of the Jamaican bauxite and alumina industry influenced undoubtedly also the outcome of the joint venture projects with other Latin American countries. On the other hand, their failure, at least temporary, seemed to have other reasons, too. The main one was obviously the persistent lack of indigenous resources faced with considerable requirements of technology and investment cost, lack of capacity to analyze and implement projects, etc. This was aggravated by the negative effects of the world economic recession on the developing countries. In the case of Jamaica, the Development Fund, originally created with the objective to use the considerable yields of the production levy for financing the local expansion of the bauxite and alumina industry, had to be used for the solution of heavy balance of payments deficits. Finally, there had been some indications that the TNCs, present in the countries participating in the project preparation, had some negative influence, too, submitting to the governments "pessimistic" reports on the projects viability.1/ Obviously, the concurrence and broader participation of international finance institutions, such as the World Bank and Interamerican Bank for Development, could in the future help to resolve these problems sponsoring also a climate of mutual confidence for the necessary participation of aluminium TNCs in the implementation of joint mining and metallurgy projects undertaken jointly b developing countries.

1/ See again, C. Davis, "Some problems in managing, ...", quoted above.

/2. Distribution

2. Distribution of gains

The changes occurred in the distribution of gains between TNCs and the economy of Jamaica can be observed in the estimation contained in table 22. Owing to the imposition of the production bauxite levy the Government's revenues derived from the bauxite and alumina industry increased, between 1973 and 1974, from 24 to 167 million Jamaican dollars or, seven fold. Their share in the value of bauxite and alumina exports augmented in the same period from 11% to 35%. At the end of 1970s there was a decline in the Government's participation to 27% reflecting obviously the effects of the renegotiation of levy rates in 1979. Taking in account other local payments by the TNCs (that is wages and salaries, local supplies, materials and services), it can be estimated that the share of total returned value in the bauxite and alumina export revenues increased from 50% in 1973 to 72% in 1977 and then, in 1980, went down to 63%.1/ The increase of the returned value to the economy of Jamaica would have had been obviously much greater had the production of bauxite and alumina maintained, or overtaken, the peak levels of 1974. The value of mining output (in constant terms) not realized between 1975 and 1980--calculated as the difference between actual and 1974 production--equalled an average of 2.5% of Gross Domestic Product in that period. In terms of Gross National Product the proportion falls to 1.6%, owing to the remittances of profits which the added production would have occasioned. In spite of the dimensions of these losses they were more than offset by the total value (in constant terms) of the bauxite levy collected during the period. In effect, levy income exceeded the value of production lost by almost 37% and was more than double the proportion that would have remained in Jamaica. But, as indicated above, these resources were not employed to enlarge the mining industry's production capacity, nor directly utilized in development projects, as was originally intended. Instead, the course of events made necessary the use of the levy income to finance part of the fiscal deficit.2/

1/ These levels of the returned value shares are obviously overestimate because, owing to unavailability of data, they do not take in account the extern financial flows of the TNCs. As no new investment had been undertaken in the period under examination, the balance of these flows was probably negative for Jamaica.

2/ See, ECLA, Economic Review of Latin America, 1980, quoted above, p.553.

/Table 22

Table 22

JAMAICA: ESTIMATION OF PRINCIPAL COMPONENTS OF THE RETURNED VALUE OF THE BAUXITE AND ALUMINA INDUSTRY a/

(Millions Jamaican dollars)

	1973	1974	1977	1980	1980 1973 = 100
1. Exports of bauxite and alumina	227.3	481.4	489.2	1,340.3	589.7
2. Returned Value components					
a) Production levy	-	161.5	163.4	360.6	223.3 b/
b) Corporate tax c/	20.7	-	-	-	-
c) Royalty	3.4	7.0	5.4	5.8	170.6
Subtotal	24.1	167.5	168.8	366.4	1,520.3
d) Wages and salaries	48.9	49.1	65.7	108.2	221.3
e) Supplies, materials and services	41.8	46.0	116.3	319.0 d/	763.1
Subtotal	90.7	95.1	182.0	472.2	520.6
Total returned value	114.8	262.6	350.8	838.6	730.5
In % of bauxite and alumina exports	50.5	54.5	71.7	62.6	
3. Volume of exports (1973 = 100.0)					
a) Bauxite	100.0	108.1	85.1	..	82.4
b) Alumina	100.0	116.7	83.3	..	100.0
4. Bauxite promedium price (1973 = 100.0)					
a) Nominal	100.0	118.5	222.2	..	350.2
b) Real e/	100.0	102.8	134.2	..	148.6

Source: JBI, ECLA Economic Survey, 1980 quoted above.

a/ Excluded financial flows for unavailability of statistical data from the companies.
b/ 1974 = 100
c/ Since 1974 included in the production levy.
d/ Calculated with the same exports share as in 1977.
e/ Deflacted with world prices index.

/Finally, coming

Finally, coming back to table 20 above (see indicators 3.-5.), one can observe that in 1974-1980 the increase of worldwide global revenues and net incomes of four major aluminium TNCs acting in Jamaica (Alcan, Alcoa, Kaiser and Reynolds) was much greater than the increase of Jamaican Government revenues from the bauxite levy and royalties (by 95% and 147%, respectively, in comparison with 11% increase corresponding to the Government). At the same time the last ones participated with only 1%-2% in the TNCs total revenues and their share in the net income of the four TNCs diminished from 32% in 1974 to 14% in 1980.

This tentative comparison confirms the previous conclusion in the sense that the TNCs transfered all the higher costs resulting from the taxation increase to the price of aluminium and related products augmenting notably their own total revenues and net incomes. Thus, as a matter of fact, the redistribution of gains did not occur between the TNCs and the government of the producer country, but to the detriment of consumers of alumium products (including those from developing countries). Nevertheless, the policy alternative of the governments of producer countries seeking the increase of gains from their natural resources through taxation policy and negotiation with TNCs seems to be, at least at present time, more efficient than that of multilateral negotiation in the framework of international commodity agreements. On the other hand, the case of Jamaica, analyzed in this study, confirms also that only joint cooperation and coordinated action of the producer countries may enable the real increase of gains in a medium and long term.