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U.S. ENCOURAGEMENT OF MINING INVESTMENT IN DEVELOPING COUNTRIES

by

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The authors are respectively Associate Director and Group Director, International Division, U.S. General Accounting Office. This paper is based on the recent GAO report "Federal Encouragement Of Mining Investment In Developing Countries For Strategic And Critical Minerals Has Been Only Marginally Effective," GAO/ID-82-38, September 3, 1982 prepared under the direction of the authors. The project manager on the assignment was Karen Levin.

Minerals import dependency has historically been a cause for concern during wartime. A confluence of events in the 1970's broadened this concern to include peacetime situations. The shock waves of the Arab oil embargo, OPEC's success in hiking oil prices, and the 1973-1974 materials shortages raised questions about increasing U.S. dependency on imports of certain minerals and U.S. vulnerability to supply interruptions or sharp price increases. These issues are raised in the policy debate over what are known as "strategic and critical" minerals.

Much of the concern about potential problems in acquiring strategic and critical minerals has focused on short-term supply disruptions caused by politically inspired embargoes, war, civil unrest and natural disasters, and on deliberate supply restrictions to raise prices by a monopoly producer or cartel of producers.

There is also a longer term concern that declining investment in mining and processing capacity will lead to demand outstripping supply. If such an outcome reflects economic considerations, there may be little in the way of a policy response to promote additional investment that would seem appropriate. However, if the decline in investment is the result of market imperfections that impede potentially profitable investment, government involvement becomes a defensible option. The United States has since the mid-1970's initiated or supported a number of bilateral and multilateral efforts to encourage overseas mining investment, particularly in developing countries. The rationale underlying this international supply option is simply that the United States

and other consuming countries could improve this long run supply picture by increasing both world capacity and the number of potential suppliers. An increase in the number of different suppliers reduces consuming country vulnerability to politically or economically inspired cutbacks and embargos, war or civil unrest, and natural disasters. Furthermore, the development of additional capacity, if nothing else, adds long run supply.

U.S. support of these efforts was the subject of a recent GAO report. 1/ In this report, we evaluated each of the initiatives with which the United States has been associated and generally concluded that they had, for a number of reasons, been only marginally effective. We did not recommend any new programs or increased funding for existing programs because we believe that before any such changes can be justified it is necessary to develop a minerals policy which includes a precise definition of strategic and critical and, a mineral-by-mineral assessment of U.S. vulnerability.

Our study concentrated on U.S. Government efforts to encourage mining investment in developing countries as one means of better assuring long-term supplies of strategic and critical minerals. Specifically, we looked at the activities of the Overseas Private Investment Corporation, Export-Import Bank of the United States, World Bank Group, 2/ Inter-American Development Bank, Asian Development Bank, and the United Nations.

After identifying several minerals which the United States imported in quantities equaling or exceeding 80 percent of

consumption, we selected bauxite, chromium, columbium, fluorspar, manganese, platinum-group metals, tantalum, and tin on which to focus our discussions with public and private sector officials. Our intent was to identify a group of minerals which would require overseas investment as an important component of any long-term supply acquisition strategy. The principal criterion for selecting these minerals, then, was a high U.S. import dependence which probably could not be substantially reduced in the foreseeable future. We considered substitution, scrap usage, higher prices, and new technologies for mining lower grade ores to be dependency-reducing.

In an attempt to evaluate U.S. efforts from an international perspective, we reviewed comparable German and Japanese activities and visited or cabled 19 developing countries to obtain information on their plans to develop their minerals sectors and the role foreign investment could play. The developing countries were selected because of geographical location, evidence of U.S., German, or Japanese investment, and the existence of or potential for reserves/resources of the eight minerals considered in our study.

DECLINING MINING INVESTMENT IN DEVELOPING COUNTRIES

Despite growing world demand for strategic and critical minerals, projections indicate that there are sufficient reserves to meet demand through the year 2000 in nearly every case. However, the existence of adequate minerals reserves alone will not assure the availability of reasonably priced future supplies.

In the long run, sufficient investment also is necessary to insure that the exploration needed to replace depleted deposits will occur and the capacity to provide needed supplies will be created.

Mining investment in developing countries has declined steadily during the last decade, causing considerable concern among U.S. policymakers and mining experts about the availability and cost of critical foreign supplies in the long term. More than 90 percent of the columbium, 60 percent of the tantalum and tin, and 55 percent of the bauxite reserves are located in developing countries. Developing countries provided over 60 percent of U.S. columbium, manganese ore, bauxite, tin, and fluorspar imports. Developing country deposits frequently are of high grade, providing the opportunity for low-cost development. Nevertheless, concern persists because developing countries generally have maintained production by exploiting the results of past exploration undertaken by international mining companies. Most, however, do not possess the capital or technological expertise to conduct the new exploration and development needed to continue long-term production, and foreign mining companies have become increasingly reluctant to explore in their stead.

U.S. mining and smelting investment in developing countries has fallen absolutely and as a percentage of total overseas mining investment in the past decade. Table 1 illustrates this decline in terms of property, plant, and equipment expenditures made by U.S. majority-owned foreign affiliates 3/ between 1966-79.

Table 1

Capital Expenditures in Mining and
Smelting by Majority-Owned Foreign
Affiliates of U.S. Companies 1966-1979
(note a)

<u>Year</u>	<u>Developed countries</u> (millions of 1972 dollars) (notes b and c)	<u>Developing countries</u> (millions of 1972 dollars) (notes b and c)	<u>Developing countries as percent of total</u>
1966	\$ 558	\$251	31
1967	569	326	36
1968	606	314	34
1969	675	363	35
1970	831	430	34
1971	1,319	271	17
1972	808	253	24
1973	851	210	20
1974	669	267	29
1975	612	277	31
1976	485	189	28
1977	343	86	20
1978	269	102	27
1979	344	136	28

a/In the last 10 to 15 years, foreign majority ownership has become an increasingly unworkable investment position in developing countries, so these statistics probably understate the extent of U.S. mining investment.

b/Capital expenditure data are not adjusted for price changes in host countries or for changes in the value of foreign currencies against the dollar, because the data needed for such adjustments is unavailable.

c/We deflated nominal capital expenditures for mining and smelting investment in both developed and developing countries by the U.S. price index for private, nonresidential investment to obtain the real concepts that appear in the table.

Source: Department of Commerce, Survey of Current Business, various issues, 1970-80.

An unpublished 1977 analysis of mining exploration expenditures by European mining companies suggests that the U.S. experience has not been unique. Only 15 percent of the exploration expenditures made by 15 major firms in 1975 occurred in developing countries, a drop from 57 per cent in 1961 and 40 percent in 1966. A 1977 survey of 18 U.S. and Canadian mining companies produced a similarly low exploration investment rate. 4/

To some extent, this declining pattern can be explained by economic conditions that have inhibited mining investment in both developed and developing countries during the last decade. The most important of these have been poor minerals markets, steeply rising capital costs, high interest rates, and the weak cash positions of many U.S. mining firms. The steady decline in the developing country share of total overseas mining investment indicates, however, that other factors have influenced investment decisions in these countries as well.

Political risks have seriously impaired the attractiveness of developing countries as sites for mining investment. Several countries have histories of political and economic instability. Such instability has led to armed conflicts, serious labor problems and the overthrow of existing governments with whom contracts were written. In addition, host governments have taken politically motivated actions directed specifically at foreign mining ventures --actions that have diminished the value of the ventures, sometimes quite seriously. In the 1960s and early 1970s, these actions frequently took the form of outright expropriations. Although

expropriation is still a threat today, foreign investors are more likely to find their operating agreements with host governments abrogated or seriously eroded by the sudden imposition of new taxes or restrictions on dividend transfers.

Mining investment also has been slowed by the growing desire of most developing countries to exercise firmer control over their extractive industries. Developing countries have come to regard exploitation of their natural resources as a sovereign right, and some have sharply limited the circumstances under which foreign investors can develop them. India and Indonesia, for example, have designated several key minerals as "strategic" and have limited responsibility for their development to the state. In the Philippines, foreign investors must operate through agreements with local claim owners because they are not permitted to hold mining claims. Developing countries also have attempted to exercise control by limiting foreign investor ownership to less than 50 percent or by requiring that a mining venture become solely or principally owned by local investors within a specified timeframe. Thailand, Mozambique, the Philippines, and Madagascar, for example, have imposed such restrictions. And some countries have required separate agreements for the exploration and development phases without guaranteeing that successful exploration will result in development rights (e.g., Thailand) or have required agreements involving both the central and provincial governments (e.g., Argentina). 5/

Although the ability of the United States to significantly alter investment climates in developing countries is limited, it has initiated or supported a variety of bilateral and multilateral efforts to promote mining investment in these countries since the mid-1970s. Bilaterally, the strongest U.S. initiative has been an attempt to increase the Overseas Private Investment Corporation's responsiveness to the needs of mining investors in developing countries. The primary multilateral efforts have been to encourage more multilateral development bank financing and technical assistance for mining projects and to support the activities of the U.N. Revolving Fund for Natural Resources Exploration. The United States initially supported these efforts out of a concern that declining investor interest could both impede the development of developing countries' economies and generally limit the availability of strategic and critical minerals needed by consuming countries. More recently, U.S. policymakers have stressed "promoting the continued availability of foreign raw materials at reasonable prices for domestic industry and defense" as an important foreign policy objective. In this context, policymakers have pointed to the recent bilateral and multilateral efforts as a principal means of assuring adequate investment today to provide the additional strategic and critical minerals supplies the United States needs in the long term.

U.S. BILATERAL EFFORTS

Of the several bilateral means to promote mining investment in developing countries, only the Overseas Private Investment

Corporation's (OPIC) minerals and energy program was specifically designed to accomplish this objective. Another activity which policymakers have cited as indirectly aiding the Government's effort to address the problem is the Export-Import Bank's (Eximbank) financing of export sales of U.S. mining equipment and expertise.

Other relatively new programs and initiatives which could result in more U.S. mining investment in developing countries include the Agency for International Development's Bureau for Private Enterprise which was established to increase the private sector's participation in Third World development and the International Development Cooperation Agency's Trade and Development Program which at the time of our study was attempting to formulate a strategy for reducing U.S. dependence on a limited number of overseas minerals suppliers. Additionally, the Department of State is negotiating a series of bilateral investment treaties to facilitate all types of U.S. investment in developing countries. 6/ Because of their relative newness, we did not evaluate these programs and initiatives in our study and therefore, concentrated on OPIC and Eximbank activities.

OPIC's Efforts to Increase U.S.
Mining Investment Overseas

OPIC is a wholly owned Government corporation created by the Congress in 1969 to facilitate the flow of private U.S. capital and skills to the Third World. OPIC accomplishes this

objective through its insurance, financial guarantee, direct loan, and promotional programs.

Its insurance program provides protection against

- losses due to war, revolution, or insurrection; 7/
- losses due to expropriation, nationalization, or confiscation by a foreign government; and
- an investor's inability to repatriate profits, earnings, or return on an original investment.

In 1977, an interagency task force recommended that OPIC develop more effective programs to increase minerals exploration and development in Third World countries to spur U.S. mining investment in these countries. In fiscal years 1977 and 1978, OPIC responded to the recommendation by making several policy and program changes designed to better serve the mining industry's particular insurance needs and to more actively promote U.S. mining investment in developing countries.

OPIC improved its insurance coverage for minerals sector investors by including protection against host governments' breaches of specified contractual provisions during the exploration, development, and production phases; providing protection against business interruptions caused by war, revolution or insurrection in the host or adjacent countries; and offering a steady level of coverage for a 10-year period following completion of construction. OPIC also undertook special promotional efforts to spur U.S. investor interest in minerals exploration and development opportunities in the Third World. In conjunction with the Department of Commerce, OPIC

conducted a series of regional seminars on minerals and energy investments in developing countries and on its new program incentives for these sectors. And in fiscal year 1978, OPIC established a Minerals and Energy Office to coordinate its support for these sectors.

Despite these initiatives, OPIC's involvement with the sector has been limited. As table 2 shows, mining projects ranged from just 1.2 to 6.8 percent of total projects insured or financed between fiscal years 1970-80. 8/

Table 2

Mining Projects as a Percent
of Total OPIC Projects
(note a)

	<u>Total projects</u> (note b)	<u>Mining projects</u> (note b)	<u>Mining as percent</u> <u>of total projects</u>
1970	100	6	6.0
1971	168	5	3.0
1972	112	2	1.8
1973	79	3	3.8
1974	147	2	1.4
1975	155	5	2.6
1976	129	3	2.3
1977	92	2	2.2
1978	84	1	1.2
1979	80	1	1.4
1980	116	8	6.8

a/It should be emphasized that this table does not present the number of new projects OPIC supported during this period. In some instances, OPIC insured the same project in two or more years. Consequently, the total number of new projects (including those for mining) is somewhat smaller than this table indicates.

b/Includes projects supported by direct or guaranteed loans and those which OPIC insured. When OPIC provided both insurance and loans to the same project, the project has been counted only once.

OPIC officials pointed to weak minerals markets as the primary reason for the small number of mining projects it has been able to insure or finance since its minerals initiatives were instituted. They contended that prospects for future demand have not encouraged the development of new sources which, in turn, has resulted in few requests for insurance or loans. Trend data on investment support this assessment. However, OPIC's operational policies, budget ceilings, and statutory requirements have also diminished the program's usefulness to minerals sector investors.

OPIC's insurance program is statutorily limited to a maximum contingency liability of \$7.5 billion, with no more than 10 percent of its insurance portfolio concentrated in any one country. Its authorizing legislation also requires that it be self-sustaining and observe principles of prudent risk management. To comply with these requirements, management generally restricts insurance on any one coverage for any one mining project to \$150 million. However, this limit can be exceeded with approval of the Board of Directors in appropriate cases.

OPIC's insurance limit may be too low to significantly benefit some investors. Mine development costs have increased so dramatically during the last 10 years that a large project today could easily cost \$1 billion. For projects such as these, OPIC's insurance limit reduces its attractiveness and usefulness considerably.

Under the loan guarantee program, OPIC guarantees an investor's loan to an approved project for any event that would prevent

the borrower from meeting the terms of a repayment schedule. In this instance, budget ceilings have also limited the program's appeal to minerals sector investors. Guarantee authority available for the program was only \$120 million for fiscal year 1981 and \$100 million for fiscal year 1982. Additionally, OPIC will not guarantee more than \$50 million per project.

OPIC statistics show that only four loan guarantees for mining projects were made during fiscal years 1970-80, all in 1979 and 1980. Guarantees may be attractive to the industry for modest ventures such as mine expansions, however, considering their limited size and the limited total guarantee authority, there is some doubt that such guarantees could make a significant contribution.

The Overseas Private Investment Corporation Act amendments of 1978 first made loans from OPIC's Direct Investment and Investment Encouragement Funds available to the minerals sector for small projects of special development importance and for project feasibility surveys. At the same time, however, the Congress set certain limits on their use by this sector. The legislation stipulates that loans can be made only for projects sponsored by or significantly involving U.S. small businesses or cooperatives and that expenditures for mining projects cannot exceed \$4 million in any fiscal year. Additionally, expenditures for minerals feasibility surveys are limited to \$200,000 per fiscal year.

As a result of these restrictions, OPIC has not used either its direct loan or feasibility survey funds to support mining

projects. According to one OPIC official, the use of direct loans and feasibility survey assistance was off limits for mining projects because most mining firms are relatively large and, therefore, do not qualify under the "small business" requirement. Furthermore, even if OPIC altered its position, it is doubtful that either form of assistance would be particularly attractive to the industry, given the limited funding available and the industry's high capital requirements.

Eximbank Support for Mining Projects

Eximbank was created in 1934 to provide financing support for U.S. export sales. Unlike OPIC, it is not limited to operating in developing countries. Its financing programs include direct loans, financial guarantees to private lenders, and commercial and political risk insurance.

In the 1940s and 1950s, Eximbank played an important role in securing strategic and critical minerals supplies for both industrial and defense applications. Today, Eximbank financing of mining equipment exports is frequently referred to as one means by which the U.S. Government indirectly promotes investment in mine development overseas. However, in the last decade lending for this purpose has been limited, especially for projects involving minerals of strategic and critical importance to the United States.

Eximbank was first called on to promote new mine development overseas during World War II. As minerals supplies grew tighter and industrial demand increased, the government initiated

programs to expand available domestic and foreign sources. In 1940, the Reconstruction Finance Corporation was empowered to make funds available to Eximbank to support minerals projects. In most cases, the proceeds from the sale of a percentage of the output secured the loans. The usual buyer was the Metals Reserve Company, created by the Reconstruction Finance Corporation in 1940 to acquire minerals stockpiles from abroad. Among the projects thus supported were tungsten mines in Bolivia and Argentina, tin mines in China, and a series of high-grade iron ore mines in Canada which exported roughly 3 million tons of ore annually to the United States.

Eximbank continued to promote new mine development overseas during the Korean War. In May 1951, President Truman asked the Congress to add \$1 billion to the Bank's lending authority and included among the justifications for this increase the "supreme importance" of making loans to develop strategic and critical minerals sources. In October his request was approved. Between July 1, 1950 and June 30, 1953, Eximbank authorized credits of approximately \$215 million to finance the purchase of U.S. equipment and materials and to increase production of cobalt, high-grade iron ore, manganese, nickel, tungsten, uranium, and zinc. In most instances, contracts were entered into to purchase at least part of the output for U.S. national stockpiles.

In addition to using its own funds for minerals sector loans, Eximbank authorized and managed loans made available under section 302 of the Defense Production Act of 1950. This section provided

for loans to expand capacity and develop technological processes and to explore, develop, and mine strategic and critical minerals deposits. An Executive order issued in September 1950 directed the Reconstruction Finance Corporation to make loans under this provision, and a subsequent order authorized Eximbank to manage such loans made in foreign countries.

Like the loans Eximbank provided during World War II and those made with its own funds during the Korean War, the section 302 loans were made with specific U.S. strategic needs in mind. The Executive order which authorized Eximbank's participation in the 302 program stipulated that a loan could only be made if a certificate of necessity was issued by the Defense Production Administration. Among the projects supported by these funds were copper, molybdenite, and bismuth mines in Canada, zinc mines in Mexico, and copper and cobalt mines in Zambia, then known as Northern Rhodesia.

During the last decade, Eximbank support for mining, including feasibility surveys and first-stage processing, has been sparse. Mining's share of all direct loans and financial guarantees 9/ ranged from 8.4 percent in fiscal year 1971 to 0 percent in fiscal year 1978, and less than 1 percent in 1981. 10/ Only a handful of the projects supported during this period involved strategic and critical minerals for which the United States has few if any reserves. Most projects involved major minerals such as copper and iron ore.

The extent of Eximbank's activities by sector depends on the mix of its applicants. In a very real sense, then, it cannot promote mining investment to secure supplies, however indirectly, because it does not control that mix. An exception occurred during the 1940s and 1950s when emphasis on increasing access to strategic and critical minerals was strong and resulted in special funds for and a special focus on mining. Today, however, Eximbank has no such mandate and sets no sector priorities.

U.S. PARTICIPATION IN MULTILATERAL PROGRAMS

In the mid-1970s, the United States authored or supported a variety of multilateral initiatives to encourage mining investment in developing countries. Principal among these initiatives were formulating an international investment insurance plan, encouraging a greater emphasis by multilateral development banks on fostering minerals sector growth, and creating the U.N. Revolving Fund for Natural Resources Exploration. The United States initially supported these efforts as a means of aiding Third World economic development and assuring adequate worldwide minerals supplies. Today, policymakers also point to these efforts, particularly the bank programs, as an important part of the Government's attempt to assure needed strategic and critical minerals supplies. However, some of these initiatives have never enjoyed the widespread support needed for implementation while those that have been implemented have not contributed significantly to meeting U.S. needs.

In 1975, the United States proposed the creation of an International Resources Bank to provide guaranties against political risk for raw materials investment in developing countries. It was the centerpiece of a comprehensive U.S. approach to addressing developing country commodities problems. The proposal was based on the premise that the flow of private foreign mining investment into developing countries was less than physical or commercial factors warranted because of the greater non-commercial or "political" risk of investing in these countries. Its ultimate purpose, then, was to assure a regional distribution of mining investment based more strictly on commercial factors.

The third plan was proposed by the Inter-American Development Bank for its member countries in 1979. Like the International Resources Bank, the Inter-American Fund for Energy and Minerals also was intended to facilitate the flow of foreign investment into the energy and minerals sectors of developing countries. About \$750 million was to be available for insurance and \$350 million for loan guaranties. Some legal experts believe that the Fund could be especially beneficial for the United States because it could provide an acceptable means of overcoming Latin American objections to the international arbitration of disputes. Such opposition has prevented availability of OPIC insurance in Latin American countries subscribing to the Calvo Doctrine.

These plans have not been implemented to date, largely because solutions have not been found to some very basic operational problems which prevented adoption of the International

Investment Insurance Agency. This first investment insurance plan failed in large measure because developing and developed countries could not agree on how to arbitrate disputes, negotiate claims, finance the plans, or distribute voting rights. The World Bank Group, asked by the United States to evaluate its International Resources Bank proposal, concluded that it too would fail for similar reasons. In the case of the Inter-American Development Bank proposal, international arbitration and subrogation of rights have been major stumbling blocks.

Additionally, the developing countries did not favor the World Bank affiliation proposed in both the International Investment Insurance Agency and International Resources Bank plans because they feared the loss of their credit standing with the World Bank if any disputes arose. Moreover, according to some U.S. officials and observers, the interested parties suspected each other of benefiting more from the plans. Developing countries thought that the plans would continue support for what they viewed as the exploitative activities of multinationals; and some developed countries thought that the United States would benefit disproportionately because they considered the U.S. national insurance plan weaker than theirs and therefore less competitive.

Since the Reagan administration took office, there has been some renewed interest in formulating an international investment insurance plan as part of an overall effort to assist developing countries through private rather than public sector means.

International Insurance Plans

During the last 15 years, the United States proposed or supported three international investment insurance plans designed to increase foreign investment in developing countries by mitigating political risks. One major reason for U.S. interest in these plans was their potential to improve the prospects for foreign mining investment in developing countries to the benefit of both producers and consumers. Two of the three plans were specifically directed toward this end. None have been implemented, however, because of disputes between developed and developing countries and among developed countries about control of the plans and the assignment of costs and benefits.

The first of these plans was proposed by the World Bank in 1966. Several multilateral insurance proposals involving World Bank participation were made in the 1950s, but the Bank did not support them until the nationalizations in Cuba, the Congo, and Indonesia. These events sharply underscored the "political" risks confronting investors in developing countries. Shortly thereafter, the Bank decided to reconsider these proposals and by November 1966 had prepared the first draft articles of agreement for an International Investment Insurance Agency. The Bank believed an international agency could play an important role in safeguarding foreign investment by covering countries or risks not covered by national plans, providing reinsurance for risks covered by national plans, and insuring investments made by international consortia.

Discussions, which have been described as serious, have taken place at the World Bank; and the Inter-American Fund for Energy and Minerals is still being considered. However, there is no evidence that these discussions have resolved the problems which have handicapped previous proposals.

Multilateral Development Bank Efforts

U.S. interest in increasing multilateral development bank support for mining projects prompted the banks to reexamine their minerals sector lending policies in the late 1970s. Historically, the banks had not devoted a large share of their resources to this sector. In July 1977, the World Bank Group decided to expand its role in promoting minerals development and suggested that the Asian Development Bank and Inter-American Development Bank also increase their minerals funding. The Group proposed doubling the number of World Bank-supported minerals projects, to a maximum of six per year, by fiscal year 1980. In 1980 prices, this meant a commitment of \$350 million to \$400 million. The World Bank Group also estimated that the International Finance Corporation could provide \$50 million to \$75 million annually and the regional banks \$400 million to \$500 million. 11/ The activities deemed appropriate for the banks were similar to those the United States envisaged in its 1975 proposal. They included (1) bridging the differences between host governments and foreign mining concerns to generate fairer, longer lasting agreements, (2) attracting foreign investment by their "presence" in agreements, and (3) providing developing countries with technical assistance for

formulating and implementing comprehensive plans to develop their minerals sectors.

In 1978, the Asian Development Bank (ADB) followed the World Bank Group's lead by laying out a similar program for promoting minerals development in its developing member countries. Like the Group, the ADB saw an important role as a catalyst, providing "seed capital" that would attract funds from other sources. The early emphasis was to be on technical assistance for the geological surveying phase followed by project financing once some well-formulated projects could be developed. The ADB anticipated increasing commitments by 1982 to about \$45 million annually.

The Inter-American Development Bank (IDB) did not set funding goals for minerals development but did apparently support a funding increase at a meeting of the regional development bank presidents in September 1977. And in 1978, the IDB's board of executive directors approved its current operating policy for the mining sector, which defines objectives, identifies the activities to be supported, outlines how to determine whether projects are suitable for financing, and details the IDB's role, given certain project characteristics. Like the World Bank Group and the ADB, the IDB has set out to play a catalytic role for large projects by contributing to the extent of its ability and then attempting to raise external financing for the balance.

Despite plans to increase support for mining, bank funding in this area generally has remained limited. Between 1971-80,

World Bank, ADB, and IDB commitments for mining projects averaged just 1.3, 0.2, and 1.3 percent of total commitments, respectively. Moreover, mining's share of total project commitments did not increase significantly following the 1977 and 1978 policy initiatives. 12/

Table 3

Mining Project Commitments as a
Percent of Total Bank Commitments
(note a)

	<u>1971-1977/1978</u> (note b)	<u>1978</u>	<u>1979</u>	<u>1980</u>
World Bank (note c)	1.5	0	1.5	1.6
IDB (note d)	1.4		1.6	.8
ADB (note d)	.3		0	.5

a/ Commitments include both project lending and technical assistance.

b/ The World Bank executive directors approved the new initiatives in July 1977, so progress has been measured starting in FY 1978. The ADB and IDB, however, did not undertake new initiatives until 1978; consequently, their progress is measured for 1979 and 1980 only.

c/ World Bank figures are calculated on a fiscal year basis to conform to bank practice.

d/ ADB and IDB figures are calculated on a calendar year basis to conform to their practices. CY 1978 figures are included in the first column.

The single outstanding exception has been the International Finance Corporation (IFC), whose ultimate aim, like that of the banks, is to improve the well-being of people in its developing member countries. Unlike the banks, however, the IFC was

established to achieve this aim specifically by promoting the growth of productive private investment in these countries and by assisting enterprises that would contribute to their overall economic development. Consistent with this mission, the IFC devoted a substantially greater share of its total commitments (an average of 12.6 percent) for 1971-80 to mining. It also increased its commitments for mining projects during the last 3 years. If 1971-80 is divided as it is for the World Bank in table 3, an increase in mining's share of total commitments is clearly shown--an average of 8.1 percent between fiscal years 1971-77 and 16.3 percent for 1978-80.

A factor cited as adversely affecting bank support for mining projects was weak markets. In the World Bank's view, for example, market conditions have not been promising enough to ensure the financial and economic viability of many projects. Demand has been weak and prices low, and there have not appeared to be any shortages of most minerals. It is important to note, however, that the IFC increased its project financing during the same timeframe and that the ADB, consistent with its 1978 plan, significantly increased the number of mining projects for which it provided technical assistance.

Other bank priorities also have limited multilateral development bank emphasis on mining and, in the long run, may influence bank activities in this sector more than the other factors already cited. During the last 3 years, the World Bank, IDB, and ADB have focused heavily on projects directly addressing the basic needs of

the people--rural development, water and sewage, health, education, urban development, population, and nutrition. From 1978 to 1980, the World Bank directed an average of 48 percent of its total funding to these projects. The ADB increased its project lending from 42 percent in 1978 to 48 percent in 1980. And the IDB, which set a goal of lending 50 percent of its funds to projects oriented toward benefiting the lower income groups of its developing member countries for 1979-82, reached a level of roughly 45 percent in 1979 and 1980.

Energy resources development has become the second most pressing priority for the banks. The rise in the price of oil and other fuels and the serious balance-of-payments implications for many developing countries have highlighted the need to accelerate the development of indigenous energy resources and to conserve energy. The Latin American and Caribbean experiences illustrate this need. Most countries in the region have been affected seriously by the high cost of oil imports. Brazil, Chile, and the smaller Caribbean and Central American countries were most hurt, with between a fourth and a half of the value of their exports absorbed by oil import costs. The World Bank plans to increase its share of funding for oil, gas, and coal projects from 1 to 6 percent through fiscal year 1983. In 1978, the ADB targeted about 5 percent; and the IDB, while not specifying a lending goal, is studying the problem and has adopted an energy sector policy.

Although the banks' top priorities lie elsewhere, they remain interested in supporting minerals sector development, providing that economically and/or financially viable projects can be developed. They believe, for example, that mining can significantly increase foreign exchange earnings and improve the balance-of-payments postures in many developing countries. However, it appears that minerals sector support will take place only within budgetary constraints. Such constraints do not permit significant increases without major shifts in priorities. Our review indicates no such shifts and therefore no significant growth in the banks' commitments to mining.

With respect to specific U.S. needs, as multilateral institutions, the banks are not intended to be vehicles for the pursuit of specific national objectives. It is true that the United States has influenced general bank policy significantly in the past. The move by the banks in 1977 and 1978 to increase support for mining projects is just one example. According to Department of Treasury officials, the United States also was highly instrumental in the shifts toward greater bank lending for basic human needs and energy resources development. However, the United States has subscribed to the multilateral focus of the banks since their inception, recognizing that bank programs are for the most part an inappropriate means of fulfilling specific national objectives. Like all other members, then, the United States does not have the authority or the ability to direct the award of specific loans or grants. Even the opportunity to

influence project decisions, however indirectly, is limited by the procedures for project development. The recipient countries, not the banks, determine which projects will be submitted for bank consideration, provided they meet standards for economic and financial viability. Any bank-generated benefits to the United States in terms of strategic and critical minerals acquisition, then, are likely to be coincidental, materializing only when specific proposals meet other criteria and priorities established by the banks.

U.N. Revolving Fund

The U.N. Revolving Fund for Natural Resources Exploration was established in December 1973 by resolution of the U.N. General Assembly to help increase natural resources exploration in developing countries and expand the world's known resources base. It is the only multilateral organization that finances all phases of exploration. When the Fund became operational in 1975, the United States saw it as an important means of increasing much needed mining investment capital in developing countries and pledged a total of \$3.5 million in 1977 and 1978.

The Fund's focus on all phases of exploration is unique among multilateral programs designed to foster mining investment in developing countries. The multilateral development banks, for example, rarely provide financing for prospecting because of its high risk.

The Fund's focus also is important to the worldwide development of reasonably priced minerals resources in the long term.

Experts agree that some of the largest and richest deposits in the world are located in developing countries, which generally do not have the money or the technical expertise to explore for and prove them. Moreover, perceived political risk and instability have discouraged foreign investors so that exploration declined sharply in the last decade. Many countries, including some with long mining histories and strong domestic mining industries such as Brazil and the Philippines, do not know the extent or value of their minerals. By providing exploration assistance, the Fund can help developing countries define their holdings and at the same time compile a more accurate catalog of the world's richest and, in many instances, most economical deposits.

The Fund's basic concept, organization, and operating procedures are unique among the forms of U.N. development assistance. Traditional U.N. assistance for minerals projects consists of consultative services, equipment and supplies, or experienced personnel and a counterpart recipient government contribution of 30 to 60 percent of total costs. The Fund requires no such contribution; rather, it explores for hard minerals ^{13/} using funds generated by pledges and successful projects. Payments, or replenishment contributions, are required of governments only if a discovery is made and are calculated as 2 percent of the annual value of any minerals produced for 15 years after production begins. ^{14/} This replenishment scheme was devised to make the Fund self-sustaining and to promote a spirit of mutual assistance among developing countries.

The Fund's structure and operating procedures were a liability during its early years. Because they were so unique, the Fund had to first establish a tangible identity and then thoroughly acquaint potential recipient governments with its services and the unusual arrangements under which they would be provided. Developing countries were slow to understand and accept the Fund's procedures and requirements. Between June 1975 and December 1978, contacts with more than 80 countries generated only 14 approved projects, 5 of which became operational. As of December 31, 1978, the Fund had accumulated roughly \$26 million in pledged contributions but had committed only \$7.2 million.

A decisive turning point occurred in 1979 with the Fund's first exploration success, which generated a more widespread, formal acceptance of its operating procedures and increased interest in its services. From this point on, the Fund's performance improved considerably. In 1980 more projects were approved than in any prior year and more projects began field operations than in all previous years combined. As of December 31, 1980, the Fund had approved 14 projects, 9 of which were operational, and was considering 11 other proposals.

Despite the Fund's recent success, its future still appears uncertain. Contributions have tapered off just as requests for services have increased sharply, creating a financial condition that threatens to curtail the Fund's activities.

Donor interest in the Fund declined because its poor initial performance left it with large cash assets that seemed to belie

a need for additional funding. The United States, for example, did not honor its 1977 and 1978 pledges until June 1980 because of the Fund's excess liquidity. Although the Fund's activity level increased dramatically in 1979 and 1980, it still retained large cash holdings. These were the result of a full-funding rule that requires the Fund to obligate total needed funds for approved projects at the start, although years might pass before the funds are expended, if at all.

In 1979, the Administrator attempted to increase the Fund's financing capability by amending the full-funding rule so that only one-third of total project costs would be set aside. This action was not enough, however, and 1980 pledges for the Fund totaled just \$1.25 million. In his 1980 Annual Report, the Administrator called for contributions of \$10 million annually and multiyear pledges to sustain the Fund's activities. However, the U.S. Government already has indicated that its appropriations process prevents it from making multiyear pledges and that, in any case, it is not likely to contribute at this time because of budgetary constraints.

FUTURE PROGRAMS SHOULD ADDRESS SPECIFIC
NEEDS WITHIN A COHERENT STRATEGY

We concluded in our study that recent U.S.-supported multi-lateral and bilateral initiatives to encourage mining investment in developing countries have not significantly increased worldwide minerals capacity, nor direct U.S. access to strategic and critical minerals. In broad terms, this was due to depressed minerals

markets and a variety of financial, procedural, and policy-related restrictions of individual programs. In addition, we found that two basic deficiencies limited the effectiveness of all of these initiatives: (1) they did not address specifically defined minerals needs, and (2) they were not part of a well-conceived and orchestrated long-term minerals policy.

By way of contrast, during the Korean War, the U.S. Government energetically attempted to foster mining investment at home and abroad to increase sources of certain strategic and critical minerals. The experience of World War II and the additional shortages threatened by the Korean conflict caused policymakers to focus on strengthening short- and long-term U.S. access to these minerals. The programs that resulted sought to fulfill specifically defined needs. Program expenditures fostered development of needed minerals and provided for direct U.S. access to suppliers.

During the current debate on minerals import dependency, concern about the fragmented U.S. approach to strategic minerals acquisition produced legislative action. In October 1980, the Congress passed the National Materials and Minerals Policy, Research and Development Act of 1980 (30 U.S.C. 1601), the first legislation to focus directly and in detail on formulating a national materials policy.

The Act called on the President to prepare a plan for conducting policy analysis, making policy decisions, and coordinating the minerals-related activities of responsible departments and

agencies. The policy submitted to the Congress in April 1982 by the administration focuses primarily on the use of public lands for minerals exploration and development, ways to improve minerals data collection, materials research and development, regulatory reform, and stockpiling. It also designates the Cabinet Council on Natural Resources and Environment as coordinator of national materials policy.

The administration's policy also indicates an intent to formulate future acquisition initiatives with an eye toward correcting access problems arising from U.S. dependence on insecure sources where usable substitutes are not readily available. To the extent that this intention represents an administration effort to define U.S. minerals needs and direct its initiatives accordingly, the policy improves on the more general initiatives of the 1970s. Unfortunately, the policy refers only in passing to this intention. It is unclear which strategic and critical minerals obtained from potentially insecure sources will be the focus of future initiatives and how the initiatives outlined in the proposal will resolve any mineral-specific availability problems. Determining which minerals are important enough to the U.S. economy and national defense to justify expenditures for their acquisition and weighing the costs and benefits of various initiatives to obtain them require considerable analyses, including minerals markets, demand and production data, and the status of new substitution technologies, to name a few. We believe that no major changes or additions to current policies or initiatives

can be reasonably justified without first demonstrating mineral-specific needs and systematically weighing alternatives for obtaining them. 15/

Although the administration's policy describes several initiatives to increase access to strategic and critical minerals, it does not address existing or possible overseas initiatives. Section 4(9) of the Act requires the President to increase the reliability of overseas supply sources by assessing the opportunities to promote cooperative multilateral and bilateral agreements for materials development in foreign nations. The Act further specifies that the President's plan should include program proposals and organizational structures to implement such provisions as set forth in section 4(9). The administration's policy has complied with the requirement by referring very briefly to two as yet untested overseas initiatives, namely deep seabed mining and the Trade and Development Program of the U.S. International Development Cooperation Agency. 16/ Emphasis on domestic options is significantly greater, although domestic initiatives alone cannot assure a steady, economic supply of the strategic and critical minerals on which the United States is heavily import dependent. Additionally, the policy is silent on the two most prominent overseas initiatives undertaken in the recent years--OPIC's minerals and energy program and the multilateral development bank efforts supported by the United States. The failure to include these initiatives raises questions about their future relevance and the contribution they will be expected to make.

CONCLUSIONS

Recent U.S.-supported initiatives to encourage mining investment in developing countries have been only marginally helpful as a means of securing adequate and economic supplies of strategic and critical minerals for the United States in the long term. Two basic conditions have impeded their performance from the start.

1. The initiatives were not designed to meet specifically defined minerals needs and therefore cannot be counted on to acquire the minerals the United States needs. Individual differences among minerals are significant and affect strategies to assure access. By carefully analyzing these differences, policymakers can define levels of need more precisely and develop strategies tailored to the geological and market characteristics of an individual mineral.
2. These initiatives have not been implemented as part of a coherent, clearly directed, long-term minerals policy that has considered and weighted the costs and benefits of a variety of domestic and foreign options. The administration's policy presented in April pays only passing attention to two untested overseas initiatives--deep seabed mining and the U.S. Trade and Development Program--and is silent on those which are already operating and which have been the subject of this paper. Consequently, both the Administration's level of interest in foreign

investment initiatives and the importance and expected contribution of the initiatives undertaken during the preceding 5 years are unclear.

Significant funding and operational changes would be required to increase the effectiveness of U.S. efforts to encourage mining investment in developing countries as a means of securing strategic and critical minerals resources. Such changes would be premature, however, without certain other actions first. We, therefore, recommended in our report that the Secretary of the Interior as Chairman pro tem of the Cabinet Council on Natural Resources and Environment:

- Require that acquisition initiatives be based on a clear demonstration of individual minerals needs.
- Clarify the roles that OPIC's minerals and energy program, Eximbank, and U.S. support for the multilateral development bank programs and the U.N. Revolving Fund for Natural Resources Exploration are to play in securing strategic and critical minerals supplies.

The Department of the Interior agreed with our recommendations and noted that it is consulting with the Department of State and other agencies to establish coordinated international strategic and critical minerals development policies.

FOOTNOTES

- 1/ U.S. General Accounting Office, "Federal Encouragement of Mining Investment in Developing Countries For Strategic and Critical Minerals Has Been Only Marginally Effective," GAO/ID-82-38, September 3, 1982.
- 2/ Consisting of the International Bank for Reconstruction and Development, the International Development Association and the International Finance Corporation.
- 3/ A foreign business enterprise in which a U.S. company owns, directly or indirectly, at least 50 percent.
- 4/ An outstanding exception to the general reluctance of industrialized mining investors to consider developing countries appears to be Japan. According to Amos A. Jordon and Robert A. Kilmarx in Strategic Mineral Dependence: The Stockpile Dilemma, Japan has channeled nearly one-half of its total foreign mining and smelting investment into developing countries. Japan generally has favored investing in developing countries more than has the United States. For example, between 1972-77, developing countries represented 58 percent of Japan's total direct foreign investment compared with 25 percent for the United States.
- 5/ Political risks and host government efforts to better control natural resources development are by no means uniquely characteristic of developing countries. In the early 1970s, the Labor Government of Australia employed several restrictions to reduce foreign investment in its minerals industries; these restrictions were later lifted when a new party took power. Canada's Foreign Investment Review Agency as well as some of its provincial governments have sought to more carefully regulate mining exploration and investment. Concern about South Africa's political future has slowed foreign investment there. Nevertheless, developed countries tend to discriminate against foreign investment less often than developing countries and, historically, have been less prone to expropriate foreign properties.
- 6/ The first bilateral investment treaty was signed between the United States and Egypt on September 29, 1982. On October 27, 1982, representatives of the United States and Panama signed the second treaty.
- 7/ OPIC has been given the statutory authority to issue civil strife insurance as well. To do so, however, OPIC must provide a report to the Congress on the subject 60 days before it offers its first coverage. On August 20, 1982, OPIC

released a report on civil strife insurance; but as of November 15, 1982, OPIC had not issued any such insurance.

- 8/ Throughout this discussion, statistics cover January 1, 1970, to September 30, 1980. Statistics from the first half of fiscal year 1970 have not been included because the insurance and loan programs were being operated by the Agency for International Development. Although OPIC was not organized until January 19, 1971, we were advised that after January 1, 1970, the programs were being administered with OPIC funds according to OPIC policies.
- 9/ We concentrated on Eximbank's Direct Credit and Financial Guarantee programs because they provide long-term financing for major foreign projects and large product exports. Consequently, most minerals sector support has come from these programs.
- 10/ If all projects supported under Eximbank's "Mining and Refining" category are counted, the share increases dramatically. On average, "Mining and Refining" credits have represented 14.4 percent of all direct loans and financial guarantees during the same timeframe. However, included in this category are export credits for steel, cement, and metals manufacturing plant projects as well as a variety of other advanced-stage processing projects that are outside the focus of this paper.
- 11/ The regional bank estimates applied to minerals and energy projects combined.
- 12/ These statistics do not consider bank lending for roads, ports, etc., that could complement minerals development. Data on the purposes of this type of lending were not available, but some lending probably has supported mining projects.
- 13/ The Governing Council of the U.N. Development Program has administrative responsibility for the Fund. Although the Fund was established to explore for natural resources generally, the Governing Council recommended restricting its activities to hard minerals exploration until it received or earned substantially larger resources.
- 14/ Recommendations have been made to the Governing Council to consider a half of 1 percent or 1 percent replenishment rate for least developed countries as defined by the United Nations and a ceiling of 10 times project costs at constant prices for all replenishments.

15/ GAO's June 3, 1982, report, "Actions Needed to Promote a Stable Supply of Strategic and Critical Minerals and Materials" (EMD-82-69), focuses in detail on the administration's minerals policy. It concludes that it does not address the fundamental issues of (1) what constitutes a strategic and critical mineral, (2) what is the potential U.S. vulnerability for a given mineral, and (3) what is the proper Federal role, including the benefits and costs of various alternatives.

16/ According to the policy, the administration also is continuing to consider invoking Title III of the Defense Production Act of 1950 to make loans, loan guarantees, price supports or guaranteed purchase agreements available as investment and production incentives. It appears, however, that these options are being reviewed for domestic use only.