



Work in progress
for public discussion

WORLD BANK TECHNICAL PAPER NO. 405

WTP405
April 1998

World Bank Group
Assistance for
Minerals Sector
Development and Reform
in Member Countries

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William T. Onorato
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The World Bank
Washington, D.C.

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Washington, D.C. 20433, U.S.A.

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First printing April 1998

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ISSN: 0253-7494

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The authors wish to acknowledge Peter van der Veen, Ian Newport, and Douglas Webb of the World Bank for helpful comments made on successive drafts of the paper.

Library of Congress Cataloging-in-Publication Data

Onorato, William T. (William Torrens)

World Bank group assistance for minerals sector development and reform in member countries / William T. Onorato, Peter Fox, John E. Strongman.

p. cm. — (World Bank technical paper ; no. 405)

Includes bibliographical references (p.).

ISBN 0-8213-4203-7

1. Coal trade—Developing countries—Finance. 2. World Bank.

I. Fox, Peter. II. Strongman, John, 1947–. III. Title.

IV. Series.

HD9558.D44056 1998

338.2'324'091724—DC21

98-5910

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FOREWORD

Consistent with its development mandate, the World Bank Group has made substantial contributions to the financing of minerals development in developing countries. In parallel, the Bank Group continues to assist its member countries to identify and implement the legal and technical reforms necessary to foster such development.

This paper demonstrates how the World Bank Group entities contribute to minerals sector development in developing member countries. It explains the various modalities employed by Bank Group entities—such as ongoing sector policy dialogue, formulation of minerals sector technical assistance packages, project financing and long-term political risk coverage—which, individually or in concert, can provide a substantial contribution to sustainable minerals sector development in World Bank member countries. The paper also provides a useful summary of the essential elements of a modern mining code as a working tool for country lawyers and task managers who are involved in minerals sector development projects.

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ABSTRACT

An important role of the World Bank Group is to assist member countries to identify and implement the reforms necessary to foster minerals development on an efficient and sustainable basis and to make a substantial contribution to mobilizing the financing needed for minerals development in developing countries. The World Bank Group consists of five specialized multilateral agencies, namely:

- International Bank for Reconstruction and Development (IBRD);
- International Development Association (IDA);
- International Finance Corporation (IFC);
- Multilateral Investment Guarantee Agency (MIGA); and
- International Center for the Settlement of Investment Disputes (ICSID).

The World Bank Group provides a broad range of advisory services, technical assistance and financing to governments, public institutions and private enterprises in its client countries. IBRD provides loans to Governments at market-related terms and IDA is the “soft” loan window providing credits to Governments at concessional terms for the poorest countries. IFC finances private sector projects and offers financial services to private companies. MIGA provides political risk insurance for private sector projects and ICSID provides facilities for the conciliation and arbitration of investment disputes.

The agencies of the World Bank Group collectively provide:

- insight and advice to member countries on economic and policy issues, including mining sector and related environmental and social issues at the sectoral, national and global levels;
- financial support, concessional and non-concessional, to members who need to finance macro-economic and/or sectoral adjustment programs, including mining sector reform and enterprise restructuring and/or privatization;
- technical assistance to members on the legal and regulatory framework, including environmental protection, necessary to implement mining sector reform programs;
- project finance, concessional and non-concessional, to governments and State-owned entities for specific investments including mining projects;
- debt and equity capital on commercial terms to the private sector to assist specific investment in mining and other projects in developing countries;
- long term political risk insurance and special guarantees of basic government project commitments to facilitate private investment in developing countries including mining; and
- advice to member countries on strategy and other matters, including mining sector related issues, based on the results of broad based comparative research and strategic studies.

The strategy of the World Bank, that is IBRD and IDA, towards non-fuels minerals recognizes that state enterprises have performed poorly in the mining sector, as in other productive sectors, and that there is a growing willingness of private sector banks and other lenders to finance private sector non-fuel minerals development in developing countries. Thus, in the late 1980s the World Bank shifted its focus away from project financing for non-fuel minerals, and examples of World Bank investment loans to fund the development of large scale non-fuel minerals projects are comparatively rare now. Instead, the World Bank today provides financial and technical support to its member countries to enable them to undertake the necessary regulatory and institutional reforms, including privatization of State-owned mining assets, to establish the conditions to attract private sector finance for non-fuel minerals development. This includes shifting the focus of state activities away from ownership and operation of mining projects and towards regulation and administration of the mining sector. It also includes modernizing mining environmental and social protection regulations and strengthening associated institutional capabilities to help bring about sustainable mining development. The World Bank's mining sector technical assistance projects contribute to IDA's primary mission of reducing poverty in the world's poorest countries by stimulating economic development through increased private sector investment in the mining sector. World Bank support to regularize informal mining can also help reduce poverty by providing employment opportunities for local communities and thereby provide livelihoods for a greater number of people and their families.

There are important differences between coal and non-fuel minerals which make it more difficult to create the necessary conditions to attract either domestic or foreign private sector investment for coal and lignite. The approach of attracting foreign investors or international mining companies will not work without first redesigning the domestic industries to produce a competitive coal market. Thus, the World Bank continues to have a substantial role in (a) providing investment finance to support coal mining operations as part of a broader reform program for developing countries which have rapidly growing coal industries; and (b) in helping finance sectoral adjustments as part of a reform program for countries in transition with significant excess coal production capacity. The main thrust of World Bank involvement is to encourage the development of a competitive market place for coal; support initiatives to make coal mining more socially and environmentally sustainable; support studies to reduce and mitigate the harmful environment and social impacts of coal use; support the privatization of state-owned coal mines and private investment and ownership for coal mining; and assist with cushioning the social impacts of the downsizing of coal industries with substantial structural over capacity, especially in the countries of the Former Soviet Union.

The World Bank contributes to the process of developing policy responses to development issues in the minerals sector by collecting and disseminating knowledge about topical minerals development issues. It does this, not only through its involvement with member countries in its operations, but also by participating in and sponsoring seminars, conferences and industry roundtables. Examples of conferences and roundtables which the World Bank has sponsored or co-sponsored include a 1994 Seminar on Coal Industry Restructuring; a 1994 Mining Legal Roundtable; a 1996 Clean Coal Initiative Roundtable; a 1996 Artisanal Mining

Roundtable; a 1997 Conference on "Mining -The Next Twenty-Five Years"; and a 1997 conference on "Mining and the Community".

IFC is a substantial financier of minerals projects in developing countries and acts as a catalyst for the investment of additional private sector debt and equity funds in the projects which it finances. The loans and investments which IFC makes are not guaranteed by any government. IFC's operational and constitutional requirements require that the projects which it finances must: (a) be in the private sector in developing countries; (b) be technically sound; (c) benefit the local economy; (d) have the promise of producing profits; and (e) comply with World Bank social and environmental policies and with IFC guidelines. IFC will invest in both small and large scale projects and in both "greenfields" and expansions. IFC provides advisory services to private companies in developing countries regarding project finance. IFC also provides governments with advice on privatizations, can assist in privatization transactions and help finance the new investments of privatized corporations. The Foreign Investment Advisory Services (FIAS) is a joint-effort of IFC and IBRD to advise governments on attracting foreign private investment. IFC can help finance private mining projects through equity and loan investments for its own account and through mobilizing additional loan funds from commercial banks through its B Loan scheme. Through its financing operations, IFC is often able to play a helpful informal role as an "honest broker" between investors and governments, and it can assist governments to establish an appropriate framework to attract investment.

MIGA is mandated to encourage foreign direct investment (FDI) for economic growth in its developing member countries. MIGA supports investment in mining and other projects by providing: (a) guarantees (i.e., insurance) against the political (non-commercial) risks of transfer restriction, expropriation, breach of contract, and war and civil disturbance; and (b) technical assistance to developing member countries to improve their ability to attract foreign investment. MIGA also helps arrange coinsurance and reinsurance to supplement coverage from existing insurers. MIGA provides investment marketing services to assist its developing member countries in formulating strategies and techniques to attract FDI in particular sectors, including mining. MIGA undertakes mining sector related capacity building activities such as strategy workshops and training programs for senior level public sector officials in mining ministries or other agencies charged with identifying and attracting foreign investors. MIGA also catalyzes mining investments by organizing investment conferences and missions and by disseminating information on investment opportunities, business partners, and the legal and regulatory environments pertaining to foreign investment in developing countries and transition economies.

ICSID was established in 1966 through the Convention on the Settlement of Investment Disputes between States and Nationals of Other States. Under the Convention, ICSID provides facilities for the conciliation and arbitration of investment disputes between States parties to the Convention and nationals of other States parties. ICSID is also authorized, under a set of Additional Facility Rules, to administer certain types of proceedings between States and foreign nationals that fall outside the scope of the Convention. In addition to its dispute-settlement activities, ICSID undertakes research, advisory and publications work in the fields of arbitration and foreign investment law.

I. INTRODUCTION AND SUMMARY

The World Bank Group¹ and other multilateral and private sector finance institutions face considerable challenges in meeting the demands for sustainable private sector development of the minerals sector in developing countries. Uncertain commodities markets, competition for capital, increased development costs, unpredictable exchange rates and apprehensions about the nature and severity of political risk, coupled with the ongoing debate about both the acceptable level of shared development burdens and benefits, and the national and international dimensions of the environmental and social aspects of project development, operation and closure, are some of the issues which make minerals development in developing countries no less difficult today than it has been at other times. The World Bank Group is well placed, however, to make a substantial contribution both to the financing of minerals development in developing countries and to assisting their member countries to identify and implement the reforms necessary to foster such development on an efficient and sustainable basis.

The World Bank Group consists of five specialized multilateral agencies with complementary development functions, which operate under international law pursuant to the treaties, or Articles of Agreement, which established them. These agencies are:

- International Bank for Reconstruction and Development (IBRD);
- International Development Association (IDA);
- International Finance Corporation (IFC);
- Multilateral Investment Guarantee Agency (MIGA); and
- International Centre for the Settlement of Investment Disputes (ICSID).

Headquartered in Washington, D.C., all are ultimately accountable to their worldwide member countries who appoint the members of their executive board. IBRD and IDA provide financing and policy advice to Governments. IBRD provides loans at market-related terms and IDA is the “soft” loan window providing credits at concessional terms to the poorest countries. IFC finances private sector projects and offers financial services to private companies. MIGA provides guarantees (i.e. insurance) to protect foreign private investors from political risks in developing member countries and assists its developing members to market their investment opportunities. ICSID provides facilities for the conciliation and arbitration of investment disputes between States who are parties to the Convention on Investment Disputes and nationals of other States.

The overarching objective of the World Bank Group is poverty reduction. It achieves this through a combination of development advice and lending activities, and is supported by major programs on human capital development, environmentally sustainable

¹ The International Bank for Reconstruction and Development, the International Development Association, the International Finance Corporation, the Multilateral Investment Guarantee Agency and the International Centre for the Settlement of Investment Disputes.

development and private sector development, including the transition of previously centrally-planned economies to a market economy competitive system. The World Bank Group provides a broad range of advisory services and technical assistance to governments, public institutions and private enterprises in its client countries. A major role for the World Bank is to undertake a macroeconomic dialogue with client countries regarding, in particular, medium term (1-5 year) economic management and development issues. The macroeconomic dialogue provides the basis for the World Bank Group Country Assistance Strategy which provides the strategic context for World Bank Group assistance to particular countries regarding policy advice, technical assistance and investment lending.

The agencies of the World Bank Group collectively provide:

- insight and advice to member countries on economic and policy issues, including mining sector and related environmental and social issues at the sectoral, national and global levels;
- financial support, concessional and non-concessional, to members who need to finance macro-economic and/or sectoral adjustment programs, including mining sector reform and enterprise restructuring and/or privatization;
- technical assistance to members on the legal and regulatory framework, including environmental protection, necessary to implement reform programs in the mining and other sectors, either directly through their own work programs and personnel, or indirectly through the financing of expert consultants;
- project finance, concessional and non-concessional, to governments and State-owned entities for specific investment projects;
- debt and equity capital on commercial terms to the private sector to assist specific investment projects in developing countries;
- long term political risk insurance, and special guarantees of basic government project commitments, to facilitate private investment in developing countries; and
- advice to member countries based on the results of broad based comparative research and strategic studies undertaken by the World Bank.

The World Bank Group has a unique position as an international development institution in performing some functions, ranging from its ongoing involvement in policy dialogue, inherent in the formulation of country assistance strategies with member countries, to providing financing or long-term political risk cover for projects where other official and private sector equivalents are not available, or by simply encouraging private sector participation which otherwise would not occur without the Bank Group's involvement.

In Fiscal Year 1997 the World Bank Group had total financial approvals of US\$24.9 billion consisting of US\$14.6 billion IBRD loan approvals; US\$5.9 billion IDA credit approvals; US\$0.3 billion partial risk guarantees issued; US\$8.1 billion, (including US\$4.9 billion B loans), IFC transaction approvals; and US\$0.6 billion MIGA guarantees issued. By comparison private investment flows in 1995 were nearly US\$170 billion. In FY97 total World Bank Group support for mining projects was US\$987.1 million consisting of US\$571 million

IBRD lending approvals (of which US\$500 million was for coal sector reform in Russia), US\$109 million IDA credit approvals; US\$126.1 million IFC transaction approvals and US\$39 million MIGA guarantees issued. (There were no IBRD/IDA partial risk guarantees for mining projects). Appendix 1 provides a list of World Bank (IBRD and IDA), IFC and MIGA mining operations for the period 1994-1997.

As this paper will seek to demonstrate, the World Bank Group entities have the institutional and financial capacity—individually and in concert—to make a significant contribution to environmentally and socially sustainable minerals development in its developing member countries.

II. THE WORLD BANK GROUP'S ROLE IN MINERALS DEVELOPMENT

THE ROLE OF IBRD AND IDA

From Project Development to Mining Sector Reform

Traditional Role - Project Development

The traditional role of IBRD and IDA in minerals development was to provide infrastructure and project finance associated with the development of major fuel and non-fuel mining projects in developing countries which were undertaken first by private sector mining companies, and later by State-owned mining companies, in circumstances where other sources of funds were not available. The project finance extended by IBRD and IDA differed from more modern conceptions of project finance for minerals development. IBRD's and IDA's recourse for debt service and for repayment was not in any way limited solely to the assets of the project concerned. Its ultimate recourse was always to a sovereign credit as the respective Articles of Agreement of IBRD and IDA required. The loan conditions would include "environmental and social" covenants consistent with the World Bank Group's operational directives on the environment, resettlement and indigenous peoples. Many major mining projects in developing countries were established in this way.

Evolution of Different Approaches to Non-Fuel Minerals and Coal

With the growing recognition that state enterprises had performed poorly in the mining sector, as in other productive sectors, the World Bank undertook a review of its strategy towards non-fuel mining in the late 1980s. The results of that review were presented in *The Strategy for African Mining*, a study by the Mining Unit of the World Bank, in 1992 which noted that:

- the mining sector is a very important source of tax revenues and foreign exchange which are essential to Africa's economic recovery;
- artisanal mining provides a living for nearly one million miners and their families in more than thirty countries in Africa; and
- commercial mining in some 19 African countries accounts for nearly one half of exports, one third of tax receipts and one tenth of overall economic activity.²

The Report also noted, however, that "Africa has failed to mobilize the necessary risk capital and investment funds needed for sound and orderly mining development"³ and

² "Strategy for African Mining", *World Bank Technical Paper Number 181*, 1992, see Foreword

presented an agenda of policy, regulatory, environmental, fiscal and institutional reform that has subsequently helped shape the IBRD and IDA assistance for non-fuel minerals for developing countries not only in Africa but also in other regions. More recently, the strategy presented in the Africa study has been augmented by the 1996 *Mining Strategy for Latin America and the Caribbean* by the World Bank Industry and Mining Division which addresses in more depth strategies for reforming public mining institutions, encouraging local medium- and small-scale private sector mining and addressing environmental and social issues.⁴

This new strategy for non-fuel minerals recognizes the willingness of private sector banks and other official lenders to finance non-fuel minerals development in developing countries. Thus, examples of World Bank investment loans to fund the development of large scale non-fuel minerals projects are comparatively rare now. Such projects with the private sector are now largely financed by the IFC and insured by MIGA. The main focus of the World Bank's work program in the non-fuel mining sector is to provide financial and technical support to its member countries to enable them to identify, adjust, and reform their mining development programs by stimulating greater private sector participation, by privatizing State-owned assets, and by establishing the conditions for sustainable minerals development.

Recent non-fuel mining projects demonstrate the shift in the World Bank's approach in the non-fuel minerals sector. Small to medium scale non-fuel mineral projects have attracted support where supporting them will assist collateral objectives, such as financing mining sector environmental remediation and mitigation and providing financial and technical assistance to support the development by its member country of the regulatory and institutional capacity needed to ensure ongoing environmental monitoring and mitigation in the mining sector. The World Bank presently is assisting the implementation of mining sector technical assistance projects in eight countries in Africa, five in Latin America and one in Asia and is actively discussing mining sector reform with governments in another ten countries.

However, the situation is different regarding coal and lignite, where IBRD and IDA continue to have a substantial role in providing investment finance to support mining operations as part of a broader reform program for developing countries with rapidly growing coal industries or for helping finance sectoral adjustments as part of a reform program for countries in transition with significant excess production capacity. Unlike non-fuel minerals, which are typically exported and sold in international markets at world prices, most coal produced in developing countries and in countries in transition is for domestic markets where entry is frequently limited, prices are often regulated and customers are typically government entities. Thus, there is far less interest by private investors in coal mining than in non-fuel minerals.

Consequently, the main thrust of World Bank Group involvement is to:

³ Ibid, Foreword.

⁴ *Mining Strategy for Latin America and the Caribbean*, World Bank Technical Paper No. 345, 1996.

- encourage the development of a competitive market place for coal;
- support initiatives to make coal mining more socially and environmentally sustainable;
- support studies to reduce and mitigate the harmful environment and social impacts of coal use;
- assist with cushioning the social impacts of the downsizing of the coal industries with substantial structural over capacity, especially in the countries of the Former Soviet Union; and
- support the privatization of state-owned coal mines and private investment and ownership for coal mining.

The World Bank has been involved in supporting coal mining development in India from the early 1980s until the present day. In recent years the Bank has undertaken various environmental studies regarding coal production and use in China. In the past two years IDA has also provided support to Mongolia to modernize its coal sector and the Bank has assisted the Russian Federation and the Ukraine with support for far reaching coal sector reforms including reduction of subsidies and provision of a social safety net for redundant workers.

Assistance for Non-Fuel Minerals

The instruments through which IBRD and IDA provide assistance include structural and sectoral adjustment loans which allow the member country concerned to finance imports while carrying out reform programs; technical assistance programs (including loans and credits to finance the costs of studies and of consultants services); and grant funds created by IBRD or which have been provided by member countries or other international organizations for IBRD to administer. There are many examples of these kinds of operations. What they have in common are those features designed to:

- support the reform of mining development policies to emphasize competition and the role of the private sector as investor and operator and the role of Government as administrator and regulator;
- establish and strengthen the institutional capacity of the relevant policy ministries and regulatory authorities in the minerals sector, usually the mining ministry, the minerals department (including the geological survey division) and the office of the mining inspector;
- foster the technical capacities of the regulatory institutions, in the mining context with an emphasis on the collection, dissemination and interpretation of geological and other data, the mining licencing system and operations for accurate mapping and titling of mineral exploration and development areas, and the procedures available for resolution of disputes at an administrative and judicial level;

- review and revise the relevant mining laws, regulations and fiscal regime, possibly in combination with the preparation of sample forms of investment agreement with optional provisions for use in major projects, and in the context of the adequacy or otherwise of other laws closely connected with mineral development concerning the environment and the mitigation of the impact of mining operations;
- provide the regulatory framework needed to establish and monitor the environmental requirements for mining projects;
- provide funding for the operations of the regulatory institutions and the equipment needed to conduct their operation including environmental monitoring and enforcement; and
- provide for training of relevant officials on an ongoing basis, and especially in relation to the matters included in any new mining laws and regulations.

In countries in transition to market economies, and in countries recovering from revolution or war, the scope of the technical assistance required may be much more broad-based, and may require fundamental institution building, as well as the implementation of programs for the adoption of legal frameworks and dispute resolution facilities appropriate to support the complexities of private sector participation.

Recent non-fuel mineral examples demonstrate the shifts in the World Bank's approach in the non-fuel minerals sector. The 1991 IBRD investment loan to Nacional Financiera, S.N.C. guaranteed by Mexico for a Mining Sector Restructuring Project is an early example of a sector reform project.⁵ This project had the objectives of supporting the deregulation of the mining sector, the stimulation of foreign investment in the sector and the creation of conditions for broader financial market support to the mining industry in Mexico. In more recent examples, the sharper focus on environmentally and socially sustainable development has become central to designing the objectives of those non-fuel related projects which are supported. This is evident in the 1994 technical assistance loan for Ecuador.⁶ The objectives of the project supported by this loan were to assist IBRD's member country to implement its new mining laws with a view to attracting greater private investment; to support systematic development of the mining industry; to promote environmentally sound minerals production; to arrest mining related environmental degradation; and to mitigate the damage caused by the use of rudimentary and inadequate technology by informal miners. To this end, the project included various institutional strengthening components and components designed to educate artisanal miners in more environmentally sound mining methods. Other Mining Sector Technical Assistance Operations in Latin America such as the 1996 loans to Argentina and

⁵ Mining Sector Restructuring Project (3359 MX), signed June 26, 1991.

⁶ Mining Development and Environmental Control Technical Assistance Project (3655 EC), signed March 8, 1994.

Bolivia include reform components to strengthen environmental remediation and mitigation, especially for small-scale and artisanal miners.

The objectives of the 1997 Mining Sector Technical Assistance Credit to Burkina Faso are to: (a) establish an enabling environment to both promote private investment in mining, and to ensure a real and sustainable contribution to economic growth; (b) strengthen public and private sector capacity to effectively administer regulations and monitor sector developments; and (c) establish capacity in the country for environmental management.⁷ Additionally, the project aims to: (a) stimulate private sector response to the growing need for a variety of mining and environment-related technical goods and services; and (b) identify and adopt appropriate mechanisms to facilitate the development of small-scale mines, and to improve the social, health and environmental conditions of artisanal miners.

Other projects financed by IDA in Africa have also addressed improvements in environmental management and artisanal mining. For example, the 1994 IDA credit for a Minerals Sector Development Technical Assistance Project in Tanzania included one component specifically directed to promoting artisanal miners' awareness of simple and environmentally sensitive mining and minerals processing techniques through dissemination of relevant information and technology demonstrations.⁸ More recently, the 1995 Ghana Mining Sector Management and Environment Project contained components specifically directed to addressing the environmental concerns generated by large and small scale mining operations.⁹

In financing large scale non-fuel minerals development, the World Bank's role has shifted from the rehabilitation of mining operations as an end in itself to lending its financial and technical assistance to mining sector reform and the privatization of State-owned mining companies. Recent examples of support for this process can be seen in the World Bank financial and technical assistance given to Peru, Ghana and Zambia for the privatization of the large copper and gold operations in those countries as well as the privatization of smaller state mining companies in Mali and Tanzania. This assistance is being provided through different projects over an extended period. For example, in the case of Zambia, assistance for the privatization of the state copper mining company and for institutional strengthening of the Ministry of Mines and Minerals Development is being provided under the Economic Recovery and Investment Promotion (ERIP) Technical Assistance Credit, which accompanies the ERIP structural adjustment operation. The assistance provided by different projects covers technical and financial assistance for necessary studies and reforms, as well as financial assistance for the adjustments required leading up to the privatization, including better preparing the mining operations to achieve their maximum value when privatized. In the case of Peru and Zambia, it

⁷ The project has four major components to achieve these objectives, namely, a regulatory and fiscal framework component, an institutional strengthening and resources management component, an environmental management component and a small-scale and artisanal mining component.

⁸ Minerals Sector Development Technical Assistance Project (2648 TZ), signed September 23, 1994.

⁹ Mining Sector Development and Environment Project (C-2743-GH), signed July 25, 1995.

has also included financing for the technical, legal and investment banking advisors needed to design and implement the privatization.

Evolution of Approach to Coal and Lignite

There are important differences between coal and non-fuel minerals which make it more difficult to create the necessary conditions which will attract either domestic or foreign private sector in investment for coal and lignite. These differences from non-fuel minerals typically include the lack of foreign markets for the kind of coal concerned, domestic price regulation, low value outputs, and the sometimes perilous financial, operational and environmental state of the existing industries and its customers. In these circumstances the approach of attracting foreign investors or international mining companies will not work without first redesigning the domestic industries to produce competitive private producers and consumers. Long lead times are inherent in the World Bank's work in the coal and lignite sector because extensive preparation is required. It takes time for the essential government and industry support for restructuring to emerge.

The evolution of the World Bank Group's approach to financing coal and lignite operations in member countries with growing coal sectors can be seen in its ongoing support for the coal sector in India. Coal accounts for two thirds of India's energy needs and Coal India Ltd. and its subsidiaries are among the largest coal enterprises in the world with a combined production of over 240 million tons of coal in 1995/96, accounting for almost all of India's coal production. A 1987 IBRD investment loan for a Coal (Mining and Quality Improvement) Project had the objectives of improving the quality of coal supplies to consumers by increasing the supply of thermal and coking coal through the financing of mechanized, large scale open pit mine operations and associated facilities at Gevra and Sonapur-Bazari and a program of imports of coking coal.¹⁰ Also financed were training programs and studies relating to the extraction and consumption of coal, and the resettlement of people displaced by the mining operations.

Today mining operations are supported as part of programs with broader objectives. Thus in FY96, IDA approved a US\$63 million Coal Sector Environmental and Social Mitigation (CSESM) Credit to assist Coal India Ltd. in making coal production more environmentally and socially sustainable. The objective is to be achieved by:

- enhancing Coal India's capacity to deal more effectively with environmental and social issues;
- implementing appropriate policies for environmental mitigation and resettlement and rehabilitation of people affected by coal projects and providing support to communities, in particular tribal peoples, living in coal mining areas; and
- testing the effectiveness of these policies in the 24 coal mines that will receive financial support under a subsequent 1997 Coal Sector Rehabilitation Project.

¹⁰ Coal Mining and Quality Improvement Project (2796 IN), signed June 29, 1987.

The CSESM project consists of a capacity building component to improve Coal India's capacity to deal with environmental and social issues; an investment component to finance the implementation of Environmental Action Plans, Rehabilitation Action Plans and Indigenous People's Development Plans for 25 mines; and a social remedial action component to review, and if required, implement a program of remedial action of resettlement and rehabilitation for affected peoples for past projects undertaken by Coal India that received World Bank Group support.

Subsequently in 1997 a Coal Sector Rehabilitation Project was approved with a US\$530 million IBRD Loan and a US\$2 million IDA Credit to support coal sector investment and market-oriented reforms that India is undertaking in the coal sector. The IBRD Loan component provides financial and technical support to Coal India's efforts to make itself commercially viable and self-sustaining. Underpinning India's broad drive to achieve economic growth, the project aims to increase domestic supplies of coal, by financing investment in 24 of the most profitable opencast mines of Coal India, for the power sector and other industries, until imports and production from private investments can fill the emerging supply gap. The IDA Credit will support a technical assistance component including a regulatory study. To meet the above project objectives, the project consists of:

- **Investment Component:** high-return and quick disbursing investments to maintain or improve production and/or profitability of the 24 existing mine subprojects; and
- **Technical Assistance and Training Component:** a study of the rules and regulations governing the coal industry, in light of the Government's decision to open up the coal sector to private investors, and technical assistance to support Coal India's institutional capacity development in project implementation and in mining operations and management.

The World Bank Group's approach to coal reform in countries in transition with structural, excess coal capacity, is based on coal sector work which warrants special note. An important aspect of the coal sector work is the need to help member countries carefully to consider the consequences of downsizing their coal industry production capacity. For many of the countries in transition it has become necessary to close down existing mines to eliminate excess capacity. These are existing mines which, due to geological characteristics, coal quality and/or location, would not be financially viable under market conditions. Dealing with these mines involves addressing a wide range of social, financial and environmental issues which, in turn, impact on project preparation and design for World Bank assistance.

The apparent present trend for IBRD and IDA to concentrate more on coal and lignite, with IFC and MIGA concentrating on non-fuel minerals, is evident in the large coal sector programs developed in recent years for the Russian Federation and the Ukraine. Under these programs, IBRD has devoted considerable resources to improving the efficiency of the coal sector in these member countries, and to the complex and difficult task of restructuring that sector in countries which are in transition to market economies. A US\$500 million Coal Sector

Adjustment Loan (SECAL) for the Russian Coal Industry, was approved by the Bank on June 27, 1996, to support the government's program for socially sustainable restructuring of the coal sector. The loan was also designed to help finance the related transitional burden on the Russian federal budget. The principal objectives of the program supported by the SECAL are to:

- cushion the impact of the restructuring on coal miners, their families, and affected communities;
- reduce the impact of the coal sector on the federal budget by supporting the decrease, and eventual elimination, of subsidies;
- promote the long-term sustainability of the coal sector through establishment of a competitive commercial industry; and
- support a restructuring program to reduce the size of the industry to increase efficiency.

In addition, on the same date as the Coal SECAL, a companion technical assistance project, a US\$25 million Coal Sector Restructuring Implementation Assistance Project, was approved to strengthen the institutional capacity of government and non-government organizations to implement the reforms effectively.

In FY96, a US\$15.8 million IBRD Loan was approved for a Coal Pilot Project aimed at helping to restructure the Ukraine's inefficient and unproductive coal industry. The pilot project's central objective is to mitigate the social and environmental consequences arising from mine closures, which are necessary to place the Ukraine's economy on a sounder structural footing. In particular, the pilot project seeks to address the following issues: safe and efficient social safety net provisions; severance payments for workers laid off by the closures; unemployment benefits after the first three months of unemployment for up to one additional year; relocation of some workers to more efficient mines; re-employment support through a job creation program; micro-credits for those interested in establishing their own businesses; a public works program; a heating subsidy of free coal contributions to miners, mine-related workers, and pensioners; consultation and public participation with below-ground and surface workers potentially affected by the closings; and transfer of social assets from mine to municipality. Through monitoring and feedback, the pilot project aims to gain experience for the improvement of subsequent operations. This involves the development of a system which would directly assess and inform project implementation in the pilot phase, and influence design and implementation decisions for future projects aimed at restructuring the coal sector in the Ukraine.

Subsequently in FY97 a US\$300 million Coal SECAL was made to the Ukraine to help finance the Government of the Ukraine's coal sector reform program. The loan will assist in financing the social mitigation program associated with the restructuring of the coal industry and safe-guarding the viable portion of the industry. The loan will also support the transitional burden on the Ukrainian federal budget by providing significant balance of payments and budget financing assistance to strengthen overall economic stability. The Coal SECAL will facilitate the coal sector reform program through its support of: mitigation of the social costs of restructuring;

market liberalization and the promotion of competition; restructuring and privatization; market-focused investment policy; and redirection and reduction of subsidies.

Together the two operations will assist the Government of the Ukraine in implementing its coal sector reform program which aims to:

- provide a social safety net for the mineworkers and their communities affected by restructuring in the sector;
- preserve the economically viable portion of the coal industry through an increase in productive efficiency and competitiveness and by encouraging private investment; and
- reduce the long-term need for subsidies which will diminish the fiscal burden imposed by the coal sector.

Assistance for Small-Scale and Artisanal Mining Focused by Poverty Issues

The World Bank's mining sector technical assistance projects are important instruments for IDA to carry out its primary mission of alleviating poverty in the world's poorest countries by stimulating overall economic development through increasing the amount of private sector investment in the mining sector. IDA has also made various studies of how development of the minerals sector can alleviate poverty more directly. These studies address how investment in small and medium mining of high unit value minerals, precious metals and gemstones, and industrial minerals and construction materials in the countries of the Southern Africa Development Cooperation Community¹¹ can be supported and thereby provide livelihoods for a greater number of people and their families.

In addition, the World Bank organized an Artisanal Mining Roundtable in 1996 at which experts from all regions of the world discussed the challenges of organizing and improving small-scale and artisanal mining. The findings were published in the report "Regularizing Informal Mining," IEN Occasional Paper No. 6, April 1996, World Bank. The findings of the report indicate that despite the many problems associated with artisanal mining, small scale mining has a number of positive benefits, including increases in rural incomes and employment, providing fiscal benefits to government, and stimulating local economies, as well as ensuring a wider exploration effort. They also indicate that the procedures for permitting and monitoring small scale mining need to be simple and incorporate action by the mine department to provide extension services for training in good mining methods and sound environmental practices. The impact of the SADCC studies and the conference, including the preparation and follow up work, can be seen in current technical assistance programs which contain components to improve small-scale mining in African countries such as Ghana, Zambia, Tanzania and Burkina Faso, and in Latin American countries, such as Ecuador and Bolivia. It can also be seen in more recent examples of proposed and existing mining laws which specifically address the

¹¹ The SADCC Region, comprising Angola, Botswana, Lesotho, Malawi, Mozambique, Swaziland, Tanzania, Zambia and Zimbabwe.

subject of small scale and artisanal mining in these countries. It is yet to be seen how these laws will operate in practice: whether they will be compatible with other mining rights over the same areas as are covered by artisanal rights; and whether the provisions will lead to greater compliance and better mining and environmental practices by artisanal and small miners.

Identifying Best International Practice for Sustainable Minerals Development

IBRD contributes to the process of developing policy responses to development issues in the minerals sector by collecting and disseminating knowledge about topical minerals development issues. It does this, not only through its involvement with member countries in its operations, but also by participating in, and sponsoring, seminars, conferences and industry roundtables. Examples include a 1994 IBRD sponsored a seminar on coal industry restructuring in France, Germany, United Kingdom, United States and Poland, which was attended by Russian government officials from a broad range of ministries and by experts from the Russian coal industry; a June 1994 IBRD co-sponsored conference on "Development, Environment, and Mining: Enhancing the Contribution of the Mineral Industry to Sustainable Development" attended by representatives of international organizations, governments, industry and nongovernmental organizations from a wide range of developed and developing countries; and a December 1994 IBRD sponsored Mining Legal Roundtable at which legal and regulatory issues were addressed by experts involved in global minerals developments from the public and private sector specifically, with a view to starting the process of identifying options for international best practice for minerals development in developing countries.

In June 1996 the Industry and Energy Department (IEN) of the World Bank organized a Clean Coal Initiative Roundtable which was attended by representatives of different stakeholders in the coal chain including member countries, mining and power sector companies and industry groups, equipment manufacturers and suppliers. More recently, in 1997, IEN also organized a conference on "Mining -The Next Twenty-Five Years" and also co-sponsored a conference (in Quito, Ecuador) on "Mining and the Community." This process is regarded as very important for a number of reasons. A great many member countries in Africa, in Central and Eastern Europe, in Latin America, and throughout Asia are reviewing their legal and regulatory frameworks for the minerals sector. The current development view (shared by IBRD and many other development agencies) is that successful economic development requires greater private sector participation.¹² This, in turn, requires a legal and regulatory framework in the minerals sector which attracts, supports and fosters such participation, on a competitive basis, and in the context of what seem to be the best international practices as tested by the experience of countries with a strong private minerals sector which delivers consistent public benefits.

The models adopted so far by many developing countries have failed to deliver the expected benefits. New approaches are needed if countries are to emulate successful examples. In some countries in transition, development of the minerals sector may accelerate broader development programs by delivering immediate economic gains. In some poorer

¹² Private Sector Development and Finance, *World Bank Information Brief* E.03.4-94

countries, and especially in Sub Saharan Africa, stimulation of investment in the minerals sector may be a necessary condition for the long term alleviation of poverty and its consequences.

Future minerals development models will differ from past best practice because of the requirement that the developments must be sustainable and pay due regard to both environmental and social impacts. Financial support alone cannot deliver development objectives if the legal and institutional framework does not support the measures necessary to achieve those objectives. The concern for environmentally sustainable development provides a good example. The World Bank Group's operational policies and directives require that the environmental aspects of its operations, and those of projects in which it participates, must be adequately addressed. To better fulfill these requirements, the Bank is an active participant in those international forums which address environmental issues. For example, as one of its contributions to the United Nations Conference on Environment and Development (the "Earth Summit") in June 1992 in Rio de Janeiro, Brazil, the World Bank devoted its *World Development Report 1992* to the environmental aspects of development, and argued that continued development is sustainable and can be consistent with improving environmental conditions, but that this will require major policy, program and institutional shifts.

Consistent with this view, in the minerals sector the Bank's policy related work on the environment is reinforced by ensuring that proposed legislative and regulatory reforms include recommendations which address the need to assess and mitigate environmental damage, which ensure that appropriate resettlement measures are implemented for people who are displaced or lose their livelihoods as a result of mining operations, which require that adequate regard is paid to forestry issues, and which aim to accommodate the rights and traditions of indigenous peoples. It is also reinforced by ensuring that financial and technical support is available to the institutions which are mandated to carry these requirements into effect.

Toward Modern Mining Codes and Investment Agreements

There are more than twenty projects where the World Bank has been involved in the 1990s in the process of reviewing and revising the laws which affect minerals development in developing countries and countries in transition to market economies.¹³ These countries are located in Africa, Asia, Eastern and Central Europe and Latin America. They vary greatly in their economic and physical attributes, and in their governmental systems. They nevertheless share the common objective of reviving and expanding development of their minerals sectors by stimulating greater private sector participation.

Although the policy, legislative and regulatory solutions adopted by these countries may have different features, some common themes are apparent. 'Successful' countries have well articulated policies and legal and institutional frameworks which support

¹³ For petroleum sector parallel, see generally, William T. Onorato, "Legislative Frameworks Used to Foster Petroleum Development," World Bank Policy Research Working Paper 1420, 1995.

small and large scale mining without imposing uneconomic fiscal burdens.¹⁴ Examples are the following:

In Latin America, Chile has experienced a major revival and established a world class, large-scale copper mining industry with substantial foreign direct investment (in addition to State-owned mining enterprises) as witnessed by the Escondida Copper Project, a joint venture involving RTZ, BHP and a Japanese consortium. Factors which are perceived as having contributed to this are: Chile's non-discriminatory policy towards foreign direct investment in the minerals sector; assurances of fair investment dispute settlement through international arbitration; State ownership of minerals, which allows the State to grant constitutionally protected property rights and access to them; permission to prospect where no existing exploration or mining rights have been granted; and transferability of exploration and mining licenses. The grant of licenses is based on technical grounds, and adverse decisions can be referred to the courts. The effective tax rates are relatively low and do not include any royalties.

In Africa, Ghana's gold mining industry has experienced a resurgence of growth in investment in existing mines led by smaller Australian mining companies such as Golden Shamrock, Pioneer and Ranger Minerals, and European companies including Billiton, Cluff Resources and Lonhro, and by the government's decision to sell-down its interest in Ashanti Gold Mines. Factors perceived as contributing to this growth are the government's commitment to its private sector minerals development policy, the adoption of new mining laws in 1986, and the privatization of the State Gold Mining Company assets in the 1990s. The new mining law and regulations confirm the State's ownership of mineral deposits and its right to grant licenses to exploit them. They allow foreign enterprises to obtain prospecting, exploration and mining rights and they confer the powers to issue, amend and revoke licenses on one State agency which also has the requisite technical expertise to assess applications. Taxes are not burdensome, and substantial foreign exchange sales revenues can be held offshore.

In Asia, as witnessed by CRA's investment in a Kalimantan coal project, and the expansion of the Freeport McMoran Copper mine in Irian Jaya, Indonesia continues its strong record of foreign investment in the minerals sector, even though the requisite mining rights take the form of a contract of work rather than a property right in the mineral deposit. In the South Pacific, Papua New Guinea is again attracting substantial private sector investment after a period of uncertainty caused by changes in government policy toward investment commitments made previously. This is witnessed by the development of the Lihir Gold Project. Factors perceived as contributing to this renewed interest are: reaffirmation by the government of its previous commitments; the modern mining laws and regulations in place to foster prospecting and exploration; competitive taxes and royalties (despite the presence of an additional profits tax regime); and the willingness of the government to enter into binding investment contracts which establish the framework for carrying out large projects, and under which disputes can be submitted to international arbitration.

¹⁴ See generally, John Strongman, "Strategies to Attract New Investment for African Mining," World Bank Industry and Energy Department, 1994.

Beyond broad reference to these kinds of examples as a starting point for analysis, it will be necessary to identify the issues which will need to be dealt with in the law and regulations and any form of model investment contract in some detail, and to consider options for resolving them. Examples of the kinds of issues which arise, and of possible solutions to them appear in Appendix 2.

IFC'S ROLE IN MINERALS DEVELOPMENT

Financing the Private Sector without a Government Guarantee

IFC is a substantial financier of minerals projects in developing countries and acts as a catalyst for the investment of additional private sector debt and equity funds in the projects which it finances.

IFC's operational and constitutional requirements require that the projects which it finances must:

- be in the private sector in developing countries;
- be technically sound;
- benefit the local economy;
- have the promise of producing profits; and
- comply with the World Bank environmental and social policies and IFC guidelines.

IFC will invest in both small and large scale projects and in both "greenfields" and expansions. As a financial institution IFC does not finance exploration activities but it is prepared to consider early involvement in feasibility studies or additional drilling programs if sufficient work has been done to indicate a high likelihood that a viable project exists. It provides loans at variable and fixed rates for maturities of eight to twelve years or more where required for the project.

IFC provides advisory services to private companies in developing countries regarding project finance. IFC also provides governments advice on privatizations and can assist in the privatization transactions and help finance the new investments of privatized corporations. The Foreign Investment Advisory Services (FIAS) is a joint-effort of IFC and IBRD to advise governments on attracting foreign private investment. IFC can help finance private mining projects through equity and loan investments for its own account and through mobilizing additional loan funds from commercial banks through its B Loan scheme. Through its financing operations, IFC is often able to play a helpful informal role as an "honest broker" between investors and governments, and can assist governments establish an appropriate framework to attract investment.

IFC typically provides for its own account financing with transaction values ranging from US\$5-150 million. Metal and coal mining projects presently account for about 3% of IFC's total portfolio. Over the past four years IFC has financed more than twenty mining projects with a total project cost of about US\$2 billion. Although the average investment for IFC's account is under US\$20 million per operation for its own account and through its B loan syndication, IFC can invest much more for larger projects. For example, the Amantaytau gold mine in Uzbekistan was IFC's largest mining operation in FY96. IFC participation in Amantaytau consisted of US\$4.4 million equity, US\$7.5 million quasi-equity, US\$40 million IFC loan, US\$85 million loan syndication and US\$6.9 million other financing.

Some of the other projects in which IFC has been involved in recent years include:

- **In Africa**, the modernization of Ashanti Goldfields Corporation's mining operation in Ghana, the development of the two major gold mines in Mali (i.e. development and expansion of the Syama gold mine and the Sadiola gold project) and the rehabilitation and development of the Kasese cobalt operation in Uganda.
- **In Europe**, the development of the Cayeli Bakir underground copper/zinc mine in Turkey;
- **In Latin America**, the expansion of the Empresa Minera Inti Raymi S.A. Kori Kollo open pit gold and silver mine in Bolivia; an environment upgrade and captive hydro power source for an iron ore producer, Samarco, and development of the Rio Capim Kaolin mine in Brazil; and development of the Yanacocha gold project and its expansion in Peru;
- **In Middle East and North Africa**, the development of Tunisia's first privately owned zinc/lead mine; and
- **In East and Central Asia**, the Kumtor gold mine in the Kyrgyz Republic and the Zervashan gold mine in Tajikistan.

IFC's Equity Investments

Unlike IBRD and IDA, IFC may make equity investments in addition to providing debt finance. It does not take a majority equity position, but where appropriate it takes at least a small equity interest in each project it finances. The loans and investments which IFC makes are not guaranteed by any government.

Catalyzing and Mobilizing Sources of Capital

In carrying out its work to foster private sector capital formation for investment in developing countries, IFC has taken a leading role. It has done so by maintaining and disseminating information about stock markets in emerging economies through its Emerging Markets Data Base. Also by being one of the first and most active sponsors of country and regional investment funds, such as the Latin America Capital Fund, established in 1992, and the State Street Bank & Trust Company/IFC Emerging Markets Index Common Trust Fund, established in 1994.

IFC also operates a very successful loan participation program where it acts as the lender of record and invites commercial lenders to participate in the loan. In this way the commercial lenders achieve through IFC the same assurances in relation to tax and other aspects of the loan as IFC obtains. In addition, even though the other lenders take their own credit risk on the loan, any default is a default to IFC. To date, IFC has not been included in a country's external debt rescheduling, either for its own portion, or for the portions participated out to other lenders.

MIGA'S ROLE IN MINERALS DEVELOPMENT

MIGA is mandated to encourage foreign direct investment (FDI) for economic growth in its developing member countries. To serve this objective MIGA provides:

- guarantees (i.e., insurance) against the political (non-commercial) risks of transfer restriction, expropriation, breach of contract, and war and civil disturbance; and
- technical assistance to developing member countries to improve their ability to attract foreign investment.

The first MIGA-insured investment in fiscal year 1990 was for a mining project. Since then, the Agency has covered a number of mining projects, totaling more than US\$700 million in issued coverage, facilitating US\$5 billion in foreign investments in the mining sector (see below).

Technical Assistance

MIGA provides investment marketing services to assist its developing member countries in formulating strategies and techniques to attract FDI in particular sectors, including mining. This assistance is accomplished through capacity building activities such as strategy workshops and training programs for senior-level public sector officials in mining ministries or other agencies charged with identifying and attracting foreign investors. Private sector organizations such as chambers of mines may also participate in these activities.

MIGA also catalyzes mining investments by organizing investment conferences and missions that bring together key players from the public and private sectors of member countries and international companies interested in investment opportunities. Furthermore, through state-of-the-art electronic media -- CD-ROM and IPAnet (an Internet-based investment marketplace), MIGA disseminates information on investment opportunities, business partners, and the legal and regulatory environments pertaining to foreign investment in developing countries and transition economies.

Guarantee Program

Main Features

Salient features of MIGA's guarantee program are:

- It can insure *new* cross-border investments from any member country into any of its developing member countries, including investments *between* its developing member countries.
- It also covers new investment contribution for the expansion, modernization, or financial restructuring of existing projects, and acquisitions involving the privatization of state enterprises.
- Eligible forms of foreign investment include equity, shareholder loans and loan guaranties, and loans to commercial banks and other lenders (provided a shareholder investment in the project is concurrently insured).
- Other eligible forms of investment are technical assistance, management contracts, and franchising and licensing agreements, provided they have terms of at least three years and the remuneration of the investor is tied to the operating results of the project.
- In keeping with MIGA's objective of promoting economic growth, investment projects should contribute to the development of the host country by providing benefits such as job creation, technology transfer, or export generation. Projects are also required to be financially, economically and technically sound, and must meet World Bank environmental guidelines.
- MIGA obtains the approval of the host government for each of its insured projects. However, MIGA does not need a counter-guarantee from the government.
- MIGA's coverage is available for up to 15, sometimes 20, years.
- Coverage is non-cancelable by MIGA unless the insured defaults on contractual obligations, but the insured may reduce/cancel coverage on any anniversary date of the contract following the third.

- MIGA's current underwriting limits (net of reinsurance) are US\$50 million per project and US\$225 million per country. However, MIGA can issue up to US\$75 million of coverage per project and up to US\$325 million per country through its treaty reinsurance agreement.

Cooperation with Other Investment Insurers

MIGA works closely with its sister organizations in the World Bank Group, especially the IFC, on several of its projects. The MIGA also actively seeks to cooperate with public and private political risk insurers through coinsurance and reinsurance arrangements to supplement coverage of eligible investment projects from existing insurers. These collaborative efforts significantly increase available insurance capacity for investors seeking to expand their businesses in developing countries. In particular, under its Cooperative Underwriting Program, a form of coinsurance in which MIGA is the insurer-of-record, private underwriters are encouraged to offer coverage in developing countries where they might not have insured investments without the involvement of a multilateral institution such as MIGA. Through these mechanisms MIGA is able to assist investors to obtain substantial amounts of investment insurance.

Coverages Defined

- **Transfer Restriction:** Protects against losses arising from an investor's inability to convert local currency (capital, interest, principal, profits, royalties and other remittances) into foreign exchange for transfer outside the host country. The coverage insures against excessive delays in acquiring foreign exchange caused by host government action or failure to act, by adverse changes in exchange control laws or regulations, and by deterioration in conditions governing the conversion and transfer of local currency. Currency devaluation is not covered.
- **Expropriation:** Protects against losses resulting from acts by the host government that may reduce or eliminate ownership of, control over, or rights to the insured investment. In addition to outright nationalization and confiscation, "creeping" expropriation -- a series of acts that, over time, have an expropriatory effect -- is also covered.
- **Breach of Contract:** Protects against losses arising from the host government's breach or repudiation of a contract with the investor or the project enterprise if the investor cannot obtain or enforce an arbitration award or judicial decision.
- **War and Civil Disturbance:** Protects against losses caused by politically-motivated acts of war or civil disturbance in the host country, including revolution, insurrection, *coups d'etat*, sabotage, and terrorism.

Guarantee Portfolio in the Mining Sector

In the mining sector, MIGA has issued a total of US\$700 million of coverage which has facilitated investments in 13 developing countries: Argentina, Chile, Colombia, Indonesia, Ghana, Guyana, Jamaica, Kyrgyz Republic, Mali, Papua New Guinea, Peru, Uganda, and Uzbekistan. Currently, MIGA has approximately US\$375 million in coverage outstanding (or, 15 percent of its portfolio) for these projects.

Some notable MIGA projects include:

- **Africa:** The Kasese cobalt mine in Uganda was the country's largest private investment at the time, in FY 1993, for which MIGA issued coverage to multiple investors and is currently expanding its involvement in this project;
- **Europe and Central Asia:** The Zarafshan gold mine in Uzbekistan, in FY 1994 and 1995, marked a significant breakthrough in terms of collaboration between various development agencies and commercial banks, including debt financing from a consortium of European banks, the European Bank for Reconstruction and Development and additional investment insurance from the Overseas Private Investment Corporation; and
- **Latin America and The Caribbean:** In Peru, MIGA issued coverage for a number of mining projects. In FY 1995 alone, these included the privatization of the Sociedad Minera Cerro Verde open-pit copper mine; privatization of a copper mining and concentrate company, Empresa Minera Especial Tintaya, S.A., and expansion of the Minera Yanacocha gold mine.

COMPLEMENTARY ROLE OF ICSID

ICSID was established in 1966 with the entry into force of its constituent treaty, the Convention on the Settlement of Investment Disputes between States and Nationals of Other States.

Under the Convention, ICSID provides facilities for the conciliation and arbitration of investment disputes between States parties to the Convention and nationals of other States parties. ICSID is also authorized, under a set of Additional Facility Rules, to administer certain types of proceedings between States and foreign nationals that fall outside the scope of the Convention. These include conciliation and arbitration proceedings for the settlement of investment disputes where either the investor's home or host State is not a party to the ICSID Convention. Under the Additional Facility Rules, ICSID may also administer conciliation and arbitration proceedings for the settlement of disputes which do not arise out of investments, provided that the underlying transaction is not an "ordinary commercial one" and that at least one

party is a State party to the ICSID Convention or a national of such a State. Cases submitted to ICSID have included five oil and gas project disputes and five mining project disputes.¹⁵

In addition to its dispute-settlement activities, ICSID undertakes research, advisory and publications work in the fields of arbitration and foreign investment law. The Centre's publications in these fields include multi-volume collections of Investment Laws of the World and Investment Treaties, as well as a semi-annual law journal, the *ICSID Review--Foreign Investment Law Journal*.

RECENT INITIATIVES TO FOSTER PRIVATE SECTOR DEVELOPMENT WHICH COULD EXPAND IBRD'S ROLE IN MINERALS DEVELOPMENT

Negative Pledge Waiver Policy

A feature of modern project finance is the way in which it allocates risks among the participants and limits the risks of the developers to the project and project cash flows. In turn, access to project assets and cash flows is usually given exclusively, or at least preferentially, to the financiers.

In developing countries this kind of financing is becoming more prevalent, even in cases where the developer is the State or a State-owned enterprise. In these cases, the usual approach to project financing may be seriously affected, or at least curtailed, because member States which have borrowed from IBRD will have given assurances in their arrangements with IBRD that they will not pledge assets to support indebtedness without giving IBRD the same or equivalent security.¹⁶

In recognition of the special temporary impact which these arrangements could have on countries in transition, IBRD published a revised Negative Pledge Waiver Policy in 1993, granting a general waiver to the application of the negative pledge where certain conditions were met.¹⁷ These conditions require that:

- the concerned country's income producing public assets should be the predominant share of total assets (measured as at least 75% of total income producing assets being in the public sector);

¹⁵ ICSID Cases, Doc. ICSID 16/Rev. 4. July 31, 1995.

¹⁶ See Section 9.03 of the IBRD's General Conditions Applicable to Loan and Guarantee Agreements dated January 1, 1985.

¹⁷ IBRD Board Policy Statement, December 14, 1993.

- the concerned country has decided upon a program of structural change towards greater private sector development which is acceptable to IBRD;
- the waiver would apply only to transactions undertaken in an initial two year period and any extensions agreed with IBRD; and
- the waiver covers only certain liens which secure qualified project financings under specified conditions, and subject to specified limitations.

Qualified project financings are foreign currency project financings for the acquisition, construction or development of properties related to a project which independent experts have concluded will generate more foreign exchange than the amount necessary to service the project debt, and which have an original maturity of not greater than five years.

Eligible liens are ones where the public assets covered are the subject of the financing, or associated revenues and claims, or shares in a special purpose project entity. Eligible liens may not allow more than twelve months debt service to be accumulated in related escrow accounts, but reserve accounts may be established to retain revenues of up to six months future operating expenses.

The waiver would not apply where lender has alternate recourse to the full faith and credit of the borrower's country or any public authority, institution, or company in the borrower's country, or to investment insurance or a non private third party other than an official agency which requires the lien as a condition of its support. The lender must generally be a private sector lender but in certain very limited cases multilateral agencies and official lenders may also benefit. The waiver would not apply where the Bank is a co-financier of the loan concerned.

In response to this waiver policy, a number of official agencies, including the United States and Japanese Export Import Banks, have established facilities which offer limited recourse project finance in countries in transition in circumstances designed to attract the waiver policy.

IDA's usual lending terms do not contain a negative pledge provision.

The World Bank Guarantee Facility

Included amongst IBRD's authorized purposes is the mandate to promote private foreign investment by means of guarantees or participations in loans and other investments made by private investors. This mandate has not been at the forefront of IBRD's operations since IBRD was established, but it has come into prominence more recently in two contexts.¹⁸

¹⁸ See generally, Ibrahim F. Shihata, Franziska Tschofen and Antonio R. Parra (eds.), "The World Bank in a Changing World."

The first context is where privately funded infrastructure projects require longer maturities than would usually be offered by the private sector. Used in this way, the facility can be employed as a partial credit facility which guarantees project debt for the full amount for specified periods of its maturity in return for the private sector funding being available on a non-guaranteed basis for longer than it would normally be available. Infrastructure projects like the Yangzhou Thermal Power Project in China and the Leyte-Luzon Geothermal Project in the Philippines, are examples of this use of the Guarantee Facility.¹⁹ They illustrate the benefits obtained by providing the Guarantee, both in terms of the availability and cost of funds which it allowed, and the approximately five years of additional unguaranteed maturities achieved from private sector sources.

In a second context, the Guarantee Facility has been adapted to provide assurances to project financiers of large projects that those government undertakings which are central to the success of the project will be honored. It does this by guaranteeing that debt service default caused by the government not honoring its commitments will be met under the guarantee. Used in this way, the World Bank's Guarantee Facility may provide a very powerful addition to the project developer's and project financier's methods of dealing with political risk, as the Hub River Projects in Pakistan demonstrate.²⁰ In those cases, IBRD guaranteed the project lenders that it would meet debt service defaults caused by the failure of the State-owned entities involved to meet their payment and performance obligations under the long term power supply contract and the long term fuel supply contract; or by the central bank's failure to provide foreign exchange. It also guaranteed that it would meet debt service defaults caused by certain political events in Pakistan, and certain natural events for which other insurance was not available. The Hub River Projects are also examples of IBRD's use of the guarantee on a cofinancing basis, because the Japanese Export Import Bank co-guaranteed portion of the debt.

There are a number of specific requirements which need to be remembered when considering whether the Guarantee Facility is an appropriate instrument in a given case. These include the following:

- Unlike the case with MIGA's political risk insurance facility, the member country Government where the project is located must counter-guarantee IBRD against liability under the Guarantee;
- the Guarantee is available only for debt default - it is not an indemnity against loss, and it cannot be used to cover equity investments;
- the Bank must receive suitable compensation for its risk;

¹⁹ Yangzhou Thermal Power Project (3718 CN), signed September 16, 1994; Leyte-Luzon Geothermal Project (3747 PH), signed September 12, 1994.

²⁰ Private Sector Energy Development Projects (2982 PK and 3812 PK), signed, respectively, August 8, 1988 and December 20, 1994.

- the member in whose markets the funds for the guaranteed loan are raised, and the member in whose currency the loan is denominated, must approve the guarantee and the convertibility of the currency involved; and
- the Bank's guarantee must give the Bank the right to terminate the guarantee by buying-in the guaranteed debt (at par) and the interest to a date fixed in the Bank's offer to buy-in the debt.

The World Bank Guarantee has not yet been used in the mining sector. Those cases where the facility has been used to date have involved infrastructure. The guarantee program, however, is designed to facilitate not only private sector development of what might once have been public sector projects, but also private sector financing of projects which otherwise meet the member country's, and the World Bank's, development strategy and which cannot be financed without the Guarantee. There is no reason why mining projects would not be eligible for support under the Guarantee.

The Guarantee Facility of IBRD is not offered by IDA and is not (yet) available in those countries which are not eligible to borrow from IBRD. This is a significant gap in the new program, and the extension of the facility is now being considered.

III. CONCLUSION

As presented, the World Bank Group entities have the institutional capacity to make an important contribution to minerals sector development in developing countries. The paper has shown how the World Bank Group has responded over time to the changing needs and circumstances of mineral development in its member states and has developed the necessary skills and instruments to play a constructive role in minerals development. The World Bank Group entities are well positioned to continue this role in the future and can be expected to progressively redefine themselves and adapt to meet the new challenges in order to make a continued contribution to environmentally and socially sustainable minerals development.

APPENDIX 1

World Bank, IFC, MIGA Mining-Related Loans, Credits and Guarantees 1994–97

WORLD BANK (IDA and IBRD)

<u>Year</u>	<u>Loan /Credit (US\$ million)</u>	<u>Country</u>	<u>Project</u>	<u>Project Cost (US\$ million)</u>
1993	12.0	India	Jharia Coal Fire TA	14.3
1993	250.0	Peru	Energy and Mining Privatization	250.0
1994	14.0	Ecuador	Mining Sector TA	24.0
1995	12.3	Ghana	Mining Sector TA	13.7
1995	12.5	Tanzania	Mining Sector TA	13.9
1996	30.0	Argentina	Mining Sector TA	40.0
1996	11.0	Bolivia	Mining and Environment TA	22.0
1996	63.0	India	Coal Mining Environment and Social Protection	84.0
1996	35.0	Mongolia	Coal Rehabilitation	60.4
1996	500.0	Russia	Coal Restructuring and Reform and Social Protection	500.0
1996	25.0	Russia	Coal Implementation TA	30.8
1996	15.8	Ukraine	Coal Pilot TA	28.5
1996	300.0	Ukraine	Coal Sector Adjustment Loan	300.0
1997	21.4	Burkina Faso	Mining Sector TA	22.5
1997	532.0	India	Coal Sector Rehabilitation Project	1,697.6

Note: Includes operations through September 30, 1997.

Source: World Bank

IFC

<u>Year</u>	<u>Loan (US\$m)</u>	<u>Equity (US\$m)</u>	<u>Quasi- Equity (US\$m)</u>	<u>Syndi- cation (US\$m)</u>	<u>Other (US\$m)</u>	<u>Company</u>	<u>Country</u>	<u>Mineral</u>	<u>Project Cost (US\$m)</u>
1993	10.0	-	-	-	-	Sierra Leone Ore and Metal Company	Sierra Leone	Bauxite	27
	10.0	-	-	-	-	Wankie Colliery Co.	Zimbabwe	Coal	28
	-	0.7	-	-	-	Com de Mines Buen Aventura SA	Peru	Gold	n.a.
	-	6.2	-	-	-	Mantos Blancos SA of Chile (Quellaveco Feasibility)	Peru	Copper	31
	12	0.7	-	12	-	Yanacocha SA	Peru	Gold	106
1994	-	0.8	-	-	-	Soc. Min. de Bougrine	Tunisia	Zinc	8
	-	-	1.2	-	-	Amantaytau Goldfields	Uzbekistan	Gold	6
	11.0	-	1.3	-	-	Com. Min. del Sur SA	Bolivia	Zinc	56
	25.0	-	9.0	40.0	-	Rio Capin Quimica SA	Brazil	Kaolin	183
	25.0	-	-	35.0	-	Mexicana de Cobra SA	Mexico	Copper	75
	10.0	-	-	5.0	0.9	Min. Yanacocha SA Expansion	Peru	Gold	54
1995	35	4.8	-	25.0	-	Sadiola SA	Mali	Gold	246
	30	-	10	-	-	Kumtor Gold	Kyrgyz Rep.	Gold	335
	25	-	-	10	-	Mexicana de Cobre SA	Mexico	Copper	115
	10	-	10	59	-	Fundicion Refimet	Chile	Copper	91
	-	0.1	-	-	-	Min. Yanacocha SA	Peru	Gold	n.a.
1996	12	-	2.6	-	-	Ghanaian-Australian Goldfields Limited	Ghana	Gold	25
	16	3.6	-	5.0	-	Kasese Cobalt	Uganda	Cobalt	110
	40	4.4	7.5	85.0	6.9	Amantayou Goldfields AO	Uzbekistan	Gold	355
	15	-	-	-	-	C.B. Isletmeteri AS	Turkey	Zinc, Cu	30
	7.5	-	0.8	5.0	-	Com. Min. del Sur SA	Bolivia	Gold	22
	5.0	-	-	-	-	Fundicion Refimet SA	Chile	Copper Sm	6
	-	5.3	-	-	-	Quellaveco SA	Peru	Copper	27
1997	10.0	-	-	25.0	-	Syama S.A.	Mali	Gold	64
	-	1.2	6.3	-	2.1	Zeravshan	Tajikistan	Gold	127
	12.0	4.0	-	32.3	4.0	Pokrovsky	Russia	Gold	111
	23.0	-	-	16.0	-	Samarco	Brazil	Iron Ore	45
	65.0	2.4	7.1	50.0	-	Loma de Niquel	Venezuela	Nickel	430

- = 0

n.a. = not available

Note: Includes transactions through June 30, 1997.

Source: IFC

MIGA

<u>Year</u>	<u>Guarantee (US\$m)</u>	<u>Recipient</u>	<u>Project</u>	<u>Country</u>	<u>Metal</u>	<u>Project Cost (US\$m)</u>
1993	10.0	La Source (France) SEREM	Kasese	Uganda	Cobalt	49
1993	9.85	GSM Gold Ltd. (Luxembourg)	Iduapriem	Ghana	Gold	72
1993	20.2	Norsk Hydro A.S. (Norway)	Alpart	Jamaica	Alumina	179
1994	40	Newmont Mining Corp. (USA)	Zarafshan	Uzbekistan	Gold	150
1994	19.8	Sumitomo Corp. (Japan)	Candelaria	Chile	Copper /Gold	557
1994	6.4 7.8 19.0	Mine Or (France) Newmont (USA) UBS (Switzerland)	Yanacocha	Peru	Gold	47
1995	10.0	Newmont (USA)	Zarafshan Expansion	Uzbekistan	Gold	n.a.
1995	50.0	Cyprus Climax Metals Company (USA)	Cerro Verde	Peru	Copper	154
1995	24.0	Magma Copper Co. (USA)	Tintaya	Peru	Copper	328
1995	13.8	Mine Or (France) Newmont (USA) UBS (Switzerland)	Yanacocha Expansion	Peru	Gold	n.a.
1996	50.0	Anglo American Corporation (South Africa)	Sadiola	Mali	Gold	271
1996	10.0 66.6	RTZ (UK) Banking Syndicate	Lihir	PNG	Gold	931
1996	45.0	Cameco (Canada) reinsurace to EDC	Kumtor	Kyrgyz Republic	Gold	335
1996	9.4	Marubeni (Japan)	Cajamarquilla	Peru	Zinc refining	61
1996	3.6	La Source (France)	Kasese	Uganda	Cobalt	n.a.
1997	14.0	Rio Algom Ltd. Citibank (USA)	Alumbrera	Argentina	Copper, Gold	n.a.
1997	35.0	Drummond (USA)	La Loma	Colombia	Coal	n.a.

n.a. = not available

Note: Includes transaction through June 30, 1997.

Source: MIGA

APPENDIX 2

Summary of the Essential Elements of a Modern Mining Code

The issues which arise in trying to formulate a modern mining code are very complex, and need to be addressed as part of the reform process.²¹ They can be summarized (not necessarily exhaustively) as follows.

Scope of the Law

Choices about the scope of the law will decide its level of complexity, and may obscure policy issues which should be addressed transparently. If the law will exclude coal and petroleum (as is common), what will the relationship of the minerals law be to these other important laws which do deal with petroleum and minerals, and which agency will be responsible for petroleum and coal operations? If gold, silver and precious stones will not be included in the general mining law, which ministry will be responsible for them, and will they be open to private sector access on the same terms as are other minerals?

Institutional Framework

The law will need to specify which ministry and which agency of government will have policy and regulatory responsibility for the minerals sector. In countries where it is necessary to create these institutions, it may be necessary to establish interim arrangements which involve the participation of all relevant branches of government on an interministerial council.²² Where State-owned mining enterprises exist, choices will need to be made about how to ensure they are not preferred over private sector participants, and about how to separate them from the on going policy and regulatory process for which they would have been responsible under previous arrangements.

Participation of Affected Peoples

The role of people affected by development and of non governmental organizations in the various stages of the regulatory and titling process needs to be addressed. Environmental guidelines for World Bank financed projects require a consultation process with those likely to be affected by the project. In the Papua New Guinea mining law, and in some more recent mining laws in Africa, provision is made for community consultation by government as part of the development approval process. Occasionally, as in Papua New Guinea, these groups may also share directly in the rents expected to be derived from mining operations in recognition of their traditional claims to the mining area, or simply to ensure a substantial level of direct local support for minerals development.

²¹ See also *Strategy for African Mining*, op cit.

²² See Onorato, op cit, p. 11

Access to Mining Activities

The types of mining rights will need to be considered, and any excluded areas identified. Restrictions on private foreign investment still persist in some countries, but they are becoming less common. Separate exploration and mining licenses are usual. Carve outs may be required to recognize existing operations. Conversion rights from exploration to development need to be specified, as well as renewal rights and any relinquishment obligations. It has become more usual to see clear conversion rights granted to exploration license holders to proceed to development upon satisfying technical criteria in more recent laws, than it is to see a broad discretion given to the government at each stage. This is the preferred approach to stimulate the commitment of substantial expenditures to exploration activities. Some recent laws also provide for prospecting rights to be granted over areas which are not covered by existing exploration or development rights as a means of encouraging discoveries. These prospecting rights are usually non exclusive, and are less expensive to maintain, but they may be defeated by the issue of an inconsistent mining right. To encourage maximum exploration effort, exploration licenses often provide that set amounts need to be spent on exploration work. Borrowing from the petroleum sector, the emerging preferred approach is to set this expenditure by reference to an agreed program of exploration with forfeiture of the estimated exploration costs if the work is not done.²³ Mining companies prefer that exploration rights be for all minerals in the relevant area, whereas some governments provide licenses only for specified minerals. In such cases more than one exploration license can be issued for the same area. To allow multiple licenses weakens the exploration license holder's ability to convert freely to a development right, and may complicate (and thereby strain) the implementation of the law at the administrative level.

Security of Tenure

The debate regarding the relative security of tenure of mining operations has changed in more recent years to account for the uncertainties involved in carrying out large scale minerals developments profitably. Investors look for a high degree of security of tenure so that they can be assured of the opportunity to develop a deposit that is discovered during exploration. However, some current mining laws require that upon discovery of a commercial deposit the discoverer must submit plans for its development, and if they are not approved, or if the discoverer does not commence development within a stipulated time period, the discoverer can be deprived of the right to develop the discovery. The design and approval of development plans is itself a lengthy and potentially uncertain process. In some more recent laws (Namibia being one example, and Australia's recent offshore minerals law being another), account is taken of the possibility that it simply may not be the right time to develop the discovery by allowing retention rights in specified circumstances, including the current commodities outlook for the minerals discovered, and the availability of finance and other factors.

²³ Ibid, p. 36

Ongoing Obligations

The obligations of the mining company should be clearly specified as being to comply with the terms of its mining license, and to carry out the approved development proposals in accordance with appropriate engineering, environmental and mining practice to a standard not less than best international practice. Giving more explicit content to these obligations will be very difficult in practice, but in return for mining companies accepting this standard, the government will need to consider providing *Force Majeure* relief, and explicit default notice and cure provisions so they can remedy any perceived shortcomings in their performance, and arbitrate performance disputes if necessary. Certain current mining laws also impose obligations which require mining operations to be continued until the government permits the shutdown or suspension of operations, whether or not they continue to be profitable. These provisions were thought appropriate in cases where mining operations were major employers and earners of scarce foreign exchange. They are coming under considerable scrutiny in the context of seeking private sector investment in market driven circumstances, and the reality that long life mining operations may need to be placed on a care and maintenance basis for economic reasons, or abandoned. In such cases, where the law does permit shutdown or abandonment for economic reasons, it may also provide for periodic review of such decisions, and may also include preemption rights if a different developer is willing to assume responsibility for continuing the operations.

Regulatory Aspects

The law will need to set out the mining regulatory authority's rights of access, inspection and powers to issue directions. They should be comprehensive enough to allow the regulatory authority to act effectively to ensure mine safety and the observance of appropriate mining practices. These discretions are sometimes expressed in wide terms which cause apprehension to investors, but it is difficult to see how they can be set out in any other way.

Private Land Owners

Mining laws frequently (but not universally) give the mining minister the very important power of allowing mining operations to proceed even where agreement on compensation cannot be reached with private landowners for disturbance to their land, or for buying it in. These provisions need to be considered very carefully in cases where indigenous peoples are affected, and where resettlement issues are raised. The Bank's operational policies and directives require that certain procedures and substantive measures be adopted in relation to protecting these groups of people.²⁴ These standards provide a good starting point for analysis on what should be included in the equivalent provisions of the mining law.

Ancillary Licenses and Permits

²⁴ See World Bank Operational Directives 4.20 and 4.30

In the absence of other developed laws regarding the use of land and other natural resources for mining purposes, and for the sake of good administration, the mining law may need to specify in some detail what rights the operator has in relation to these resources.

Other Project Activities

Developed countries usually have well developed bodies of law regarding minerals processing, and the export of mineral products. In some cases where countries are still establishing market based legal systems, it may be necessary to provide for these matters in the mining law so that authorization to engage in ancillary activities, or further processing, can be obtained at project commencement and not left to some future time.

Investment Contracts

The rights and obligations of the government and the mining company will often need to be supplemented with a separate investment agreement to supplement, modify or supersede the mining law in various ways. Modern mining laws often contemplate that these agreements will be entered into, and some require them before major projects can begin. The kinds of things they cover could include: the operator's rights and obligations in relation to infrastructure and the financing of any infrastructure which is required specifically for the project; the agreed fiscal regime, including (if any) income tax relief on dividends and on interest payable to lenders, and any royalties, import and export taxes payable, and the basis for their assessment; procurement policies and marketing arrangements likely to be followed for the project, including arms length dealing requirements; any especially complex provisions which are too detailed for inclusion in the law, for example, completion tests and *Force Majeure*, default and termination procedures; any special issues regarding the operator, including parent company guarantees and the financing structure proposed for the project; and any special provisions regarding the State's participation in the project.

Fiscal Issues

The appropriate fiscal regime for mining projects needs to be considered at the time when the mining law is being revised, and in relation to major projects as part of the terms and conditions upon which they will proceed. There is no one prescription which will be appropriate either as a general basis for taxing mining operations, or for taxing a specific project. The critical thing is to ensure that the government has the resources available to obtain relevant economic, tax policy and tax advice so that it receives an equitable share of the results of mining operations, and that it does not incur major expenditures for mining related infrastructure for which it is not reimbursed.

Environmental and Social Matters

As in the petroleum sector, probably the most difficult issue facing governments and private sector participants in minerals development today is how to approach mining projects as environmental projects in a way which is, and which over time will continue to prove to be, consistent with best practices for the assessment, monitoring and mitigation of the adverse

environmental and social impacts of mining operations. In some countries this already difficult (if not impossible) task is made even more difficult because past State-owned or private sector mining practices have been so bad that there already exists a situation of serious environmental degradation and/or negative social impacts which must be addressed to preserve the health and safety of those affected as part of the sector's ongoing operation. The first and most difficult task in these extreme cases is to ensure that they are covered by the law, so the regulatory authority can subject them to safe operating standards. The temptation will be to exclude them. However, this is not a solution in either the short term or the long term, as no new operator could assume the liabilities inherent in their unsafe (and therefore unsustainable) operations with any assurance that the risk could be contained. These extreme cases aside, the approach adopted with more recent mining laws has been to require either in the terms of the mining law, or in the terms of a separate environmental law, that all mining projects must be assessed and monitored for their environmental impact, and must observe an agreed (or failing agreement, imposed) plan to mitigate environmental damage. This apparently highly discretionary approach needs to be considered in the context of the technical nature of environmental issues in mining projects. This has been stated recently as follows.

In comparison with such global and national environmental issues as deforestation, desertification, and climate change, the effects of mining are generally localized, identifiable, and specific, and adequate technology is available to deal with them. But mineral beneficiation and processing can involve the use of toxic materials, and it is essential that satisfactory operating practices are enforced. The necessary measures to safeguard the environment and the health and safety of the population and the workforce can be incorporated in legislation and regulations.

New plant and equipment usually provide both improved efficiency and superior environmental performance. Improved physical environments are conducive to improved productivity in the mines and plants and in the community at large.²⁵

The costs of compliance can also be offset through allowing appropriate tax deductions for environmental expenditures, including for final rehabilitation costs when mining operations are completed.

For existing mines, and inferentially for changes to the environmental standards imposed on technical grounds at a later time, compliance requirements should be focused and specific, and allow time for compliance to be achieved with the minimum operational disruption possible.²⁶ Again the costs of compliance should be allowed to be deducted for tax purposes as an operating expense (and carry back of these expenses against past profits where appropriate).

²⁵ Strongman, op cit, p. 12

²⁶ Ibid.

One outstanding structural issue which needs to be resolved by governments when trying to address environmental issues, is which ministry, and which regulatory authority, should be responsible for setting environmental standards, and for ensuring compliance. In some cases, a separate environmental agency is responsible. In other cases it is the mining authority which has these tasks. The issue is a serious one, because it could determine who has the final say over decisions to commence, suspend or terminate operations. Whatever the structural outcome, the mining ministry should always take the lead role in ensuring all necessary issues are addressed, and that permits are obtained for the commencement and continuance of mining operations. Whereas there is considerable experience and a growing body of examples of good practice regarding environmental impacts, the situation regarding social impacts is much less advanced and satisfactory procedures for identifying, mitigating and compensating for negative social impacts or still being developed.

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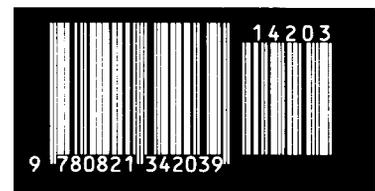
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