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REGULATING MINING IN AFRICA
For whose benefit?

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Contents

Introduction

Over the 1980s and 1990s, the reform of regulatory and legal frameworks in favour of greater harmonisation and stability in the mining sector in Africa have indeed contributed to a more favourable environment for foreign investment. The reform measures have entailed, however, a process of redefining the role of the state that is so profound that it has no historical precedent. Because of this, these measures have the potential effect in the countries concerned of driving down norms and standards in areas of critical importance to social and economic development, as well as the protection of the environment. There is in fact strong evidence that suggests these trends have been and continue to be the case in an increasing number of situations.

Consequently, present trends raise pressing questions about the conditions necessary to ensure development goals and the role and responsibility of the agents and actors who contribute to the shaping of this process. If the issue of lasting and sustainable economic development is to be addressed, account will need to taken not only of the role of the private sector and specific companies, but also of the role bilateral and multilateral financial institutions and the countries of origin of the companies play in shaping the investment environment and the norms which regulate it.

In order to address these broader issues, the study is divided into three sections.

The first briefly summarises the process of liberalisation of the African mining sector in the 1980s from a developmental perspective.

The second examines the creation of a new regulatory framework in the 1990s for mining in Africa.

In the third section, a series of case studies illustrate how this process has given rise to specific mining codes and environmental regulations in different African countries. While in no way claiming to be exhaustive, the section adopts a comparative perspective in order to examine certain implications for the countries concerned of present forms of liberalisation in the mining sector.

The case studies illustrate a dynamic and open-ended process of reform, which translates into three generations of African mining codes. The first generation of the 1980s, illustrated by the Ghanaian experience, provides an example of the initial very stringent forms of state withdrawal, which it was suggested were necessary to attract foreign investment. The second generation of the early and mid-1990s, with Guinea as the example, illustrates an increasing recognition of the need for certain forms of regulation, notably with respect to the environment, but also illustrates how responsibility to oversee such issues was imputed to private (non-state) actors.

The third generation, from the end of the 1990s, with Mali, Madagascar, and Tanzania as examples, illustrates the increasing recognition that states do have a role to play in facilitation and regulation. With regard to this process of "re-regulation", the questions that must eventually be examined more thoroughly are what roles are being ascribed to local states, as defined by whom, in what context, and with what social, economic, and environmental impacts?

Pending further empirical research, our hypothesis is that the process of economic reform of the African mining sector over the last twenty years to create a more favourable foreign investment environment has entailed profound modifications to the role of local states, and that these modifications have not been given adequate attention. Moreover, the manner in which deregulation measures and forms of re-regulation and facilitation were introduced in the 1980s and 1990s may not necessarily be compatible with, may even impede, meeting the development challenges of the countries concerned.

Consequently, beyond the role played by individual corporate actors, the conclusion draws attention to the broader context that needs to be taken into account in addressing these issues, and particularly to the importance of bilateral and multilateral actors. The study ends by pointing to several possible areas of reform and to measures that might enhance the role of the mining sector in responding to development challenges.

I. Liberalisation of the Mining Sector in Africa in the 1980s A Developmental Perspective

A great deal has been written about the structural adjustment and liberalisation experiences of African economies in the 1980s. Much less attention has been given to the fact that this experience entailed a fundamental redefinition of the role of the state in the countries concerned. One notable exception in the academic literature is the work of T. Biersteker, who stressed that while opinion in the 1980s seemed to converge on the need to reduce the state, there was little discussion of what this would mean and even less on the political implications. Starting with a definition of the state as referring "principally to the instrumental institutions with a capacity to influence and structure society",[1] Biersteker's study identifies five different forms of state intervention in the economy: influence, regulation, mediation, distribution, production and planning. To summarise briefly, Biersteker suggests that the effect of World Bank and IMF programs has been:

- to increase, or at least maintain, state efforts to *influence* the economy;[2]
- state attempts to *regulate* the economy tend to be either reduced or redirected;[3]
- managing demand by imposing wage restraints or eliminating indexation programs entails a redirection of state *mediation*, not its reduction;
- most, though not all, recommended policy reforms entail a reduction of state attempts to *distribute* (or redistribute) the social or private product of capital;
- policy reforms nearly always entail a reduction in the efforts to *produce* goods and services directly (this is what privatisation is meant to do, notes Biersteker.); and
- finally, while policy measures are not specifically directed against the planning function, as they leave more and more of the economy to the market, they should in fact reduce state efforts to *plan* economic activity.[4]

In the short term, "privatization and greater reliance on market mechanisms reduce the amount both of direct state monitoring and of information about the production process. The decrease in current government spending also reduces resources available for planning".[5]

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1. Thomas J. Biersteker, "Reducing the Role of the State in the Economy: A Conceptual Exploration of IMF and World Bank Prescriptions", in *International Studies Quarterly*, vol. 34, 1990, p. 480.
2. *Ibid.*, p. 486.
3. *Ibid.*, p. 487.
4. *Ibid.*, p. 488.
5. *Ibid.*

More generally, Biersteker notes, "what initially began as a series of short-to medium-term measures of stabilization and economic adjustment turn out to have significant long-term implications for the choice of development strategy".[1]

His analysis led him to conclude that because state intervention in the economy is not unidimensional, and because economic reforms recommended by the Bank and the Fund have differential effects on state interventions (some being increased while others are reduced), three hypothetical implications could result.

First, reducing the state's intervention in production might undercut its ability to redirect its regulatory intervention on behalf of the private sector. Biersteker noted the high degree of interdependence between the public and private sectors in developing countries, as illustrated by Brazilian experience in the early 1970s when the state provided generous subsidies to the private sector to finance its high rates of absolute growth.[2]

Second, certain policy recommendations could undermine the fiscal basis of the state. And lastly, by failing to mobilise the private sector adequately and by weakening the fiscal basis of the state, Bank and Fund programs, concluded Biersteker, could undermine the legitimacy of the state itself. For example, reducing or redirecting the state's distributive intervention in the economy could well undercut its ability to mediate effectively between conflicting factions within civil society, especially between industry and the work force.[3]

In our examination of the impact of structural adjustment programs and liberalisation strategies on the mining sector in Africa, Biersteker's contribution provides us with a tool for analysis. First, it is important to underline the extensiveness of the adjustment experience on the continent and the dynamic nature of liberalisation that does not seem to have a terminal point. It is in this area of the world where the greatest number of programs was introduced. As of 1981, 35 countries of sub-Saharan Africa implemented 162 structural adjustment programs (SAPs) with the World Bank and /or the IMF.[4] During the same period, 126 SAPs were introduced throughout the rest of the world.[5]

Second, it is important to underline the extent to which during the 1980s a very central aspect of the reform process was the profound and conscious withdrawal of state participation in the mining sector. According to the United Nations Conference on Trade and Development, "during this period, a deteriorating financial situation has forced many countries to reconsider the role of the State. State-owned

1. *Ibid.*
2. *Ibid.*, p. 490.
3. *Ibid.*
4. Hakim Ben Hammouda, *L'économie politique du post-ajustement*, Paris: Karthala, 1999, p. 53.
5. CNUCED, *Rapport sur le commerce et le développement 1993,* Geneva, 1993.

enterprises, including in the mineral sector, have been privatized, inter alia to reduce fiscal deficit".[1]

A useful illustration of policy reforms proposed for the mining sector during this period, which may be considered as the first generation of reforms in this area, is provided by Ghana, the continent's second most important producer of gold and bauxite.[2] While diamonds and manganese are also mined, it is gold that is by far the country's most important mineral commodity, as illustrated by the fact that it contributes more than 90% of the total value of mineral wealth.[3] In order to provide an overview of the subsequent direction of the Ghanaian reform process, and in anticipation of the case study that follows, brief reference will be made in this section to certain relevant changes to the mining legislation in the 1990s.

As detailed in a study devoted to gold mining in western Ghana,[4] the mining sector received priority attention under the country's Economic Recovery Program (ERP) initiated in 1983, as this sector was considered key to the country's economic recovery.

Apart from the general macroeconomic policy reforms for the country, specific sector reforms that sought to encourage investor interest in mining were introduced. In fact, the sector has received a tremendous boost with the dynamic policy changes initiated since 1986. A new *Minerals and Mining Law* (PNDCL 153) was put in place in 1986. There were two addenda: *Additional Profile Tax Law* (PNDCL 122) and *Minerals (Royalties) Regulations* (LI 1349) in 1985 and 1987 respectively. Another law, *Small Scale Mining Law* (PNDCL 218) was enacted in 1989 in a bid to give legal credibility to small-scale artisanal mining in the country. An additional law established the Minerals Commission, a key institution that served as a one-stop investment centre for mining.[5]

The fiscal component of the laws was considered to be one of the most liberal at the time, only surpassed by those of Papua New Guinea.

These laws, with generous provision for tax incentives to foreign investors, constitute the main legislation and jurisdiction over fiscal issues in the mining sector.

For example, *corporate income tax*, which stood at 50–55% in 1975, was reduced to 45% in 1986 and further scaled down to 35% in 1994. The initial *capital allowance* to enable investors to recoup their capital expenditure was increased from 20% in the first year of production and 15% for subsequent annual allowances in 1975, to 75% in the first year of operation and 50% for subsequent annual allowances in 1986.

1. United Nations Conference on Trade and Development (UNCTAD), "State Participation and Privatization in the Minerals Sector", report by UNCTAD Secretariat, August 1995, p. 4.
2. The case study of Ghana was produced by Thomas Akabzaa, University of Ghana, Legon.
3. Thomas M. Akabzaa, *Boom and Dislocation. The Environmental and Social Impacts of Mining in the Wassa West Distinct of Ghana*, Ghana: Third World Network Africa, 2000, p. 13.
4. *Ibid.*, Chapter 2, pp. 17–19.
5. *Ibid.*, pp. 17–18.

The *royalty rate*, which stood at 6% of total mineral value in 1975, was reduced to 3% in 1987.[1] *Other duties*, such as the mineral duty (5%), import duty (5–35%), and Foreign Exchange Tax (33–75%) that had contributed significantly to government revenue from the sector, were abolished.

In addition, according to the same source, the following incentives were introduced:

– Exemption from the payment of customs import duties in respect of plant and equipment and accessories imported for use in mining.
– Personal remittance quota for expatriate personnel was freed from any tax on the transfer of external currency out of the country.

Apart from these concessions, a holder of a mining lease could be permitted by the Bank of Ghana to retain a minimum of 25% of the operator's foreign exchange earnings in an external account for the purposes of acquiring equipment, spare parts, raw materials, and for dividend payments and remittances in respect of goods for expatriate personnel, among others.[2]

The study notes that companies have in fact negotiated individual retention levels far above the minimum requirement. Thus, although mineral exports form a significant part of the country's exports, the contribution of this sector to GDP is as low as 2%.[3]

Because of these incentives, tremendous interest arose among investors, notably in the gold mining sector. Opportunities for investment resulted from an important series of privatisations, particularly that of the former state-controlled Ashanti Goldfields Corporation (AGC).

At the macro-level, the policy framework focused on trade liberalisation, public expenditure, state-owned enterprise reform, and public sector management. Liberalisation of imports and export promotion policies were crucial in turning the mining sector around. The reform exercise facilitated access to foreign financing for buying the equipment and spare parts needed to rehabilitate and expand existing mines and to develop new ones.

The adjustment program was implemented progressively. During the first years, mining sector polices aimed to increase the worth of existing mines through rehabilitation. Some mines enjoyed loans from multilateral and bilateral financial agencies, facilitated and guaranteed by the government, for expansion and rehabilitation, while others were put under management contracts to improve their efficiency.

1. "According to the statutes the royalty payable ranges between 3–12%, according to the operating margin of the mine. But in practical terms no mine pays more than 3%", *ibid.*, p. 30.
2. *Ibid.*, p. 30; Government of Ghana, *Minerals and Mining Law*, Provisional National Defence Council Law (PNDCL 153), 1986.
3. *Ibid.*, p. 19.

Ashanti Goldfields had substantial funds during the period for expansion and rehabilitation, while former state entities such as the Tarkwa Gold Mine, Prestea Mine, and the diamond mine were transferred to various groups of investors under management contract agreements.

The second stage entailed the privatisation exercise, which was carried out in a variety of ways, including the following:

1. The government systematically disengaged itself by selling its shares in these mines to the private sector. In the case of Ashanti Goldfields Corporation, the government progressively reduced its stake to an eventual 19% in 1998, from its original 55%, through the sale of its shares initiated in 1993. In the case of Ghana Bauxite Company, the government reduced its shareholding from 55% to 20% in 1998.

2. Complete divestiture of hitherto state-owned mines to the private sector, with government maintaining a statutory 10% free equity in those mines. Initially, foreign companies were invited to participate in management contract agreements, and eventually bought the mines where they found them viable. For instance, Goldfields South Africa ran the Tarkwa Mine on a management contract from 1993 and 1994 and eventually purchased it in 1995. Johannesburg Consolidated Investments (JCI), another South African company, ran the Prestea Mine on contract from 1995 to 1996 and purchased it in 1997. Dunkwa Goldfields and Ghana National Manganese Corporation were sold outright, while Ghana Consolidated Diamonds, which was run by De Beers on contract, has failed to attract buyers and De Beers has refused to exercise its option to purchase it. It has remained on the divestiture list.

As a result of this process, while the ownership structure of the mining industry is mixed, foreign companies control an average of about 70% of shares in these mines.[1] The Ghanaian government has a 10% free share in each mine with the option to acquire an additional 20% at the ruling market price.[2] The implications of these measures will be examined in the third section of the study.

To return to the general trend of economic reforms introduced in most African countries, by the end of the 1980s the initially stringent forms of state withdrawal became the object of serious questioning and new emphasis was put on "building capacity" and improving "governance" through the introduction of institutional reforms. This emphasis, illustrated for example in the World Bank's 1992 and 1994 publications on governance, was to become more systematic in the 1997 *World Development Report*, which focused entirely on "The State in a Changing World". As

1. *Ibid.*, p. 14.
2. *Ibid.*, p. 15.

will be seen in the next section, there occurred in parallel a renewal of the reflections on institutional reform with regard to the mining sector. It should be noted that the process of redefining the role and functions of the state was undertaken above all with a view to creating a favourable environment for investment and the free play of market forces. Development objectives, notably through redistributive measures to ensure greater social cohesion, or regulatory measures to monitor the use of non-renewable resources and to ensure the protection of the environment, were placed in a distinctly secondary position compared to the emphasis on attracting foreign investment and promoting exports. It is in this context that one can understand the Economic Commission for Africa's observation that by the end of 1995, no specific code on environmental issues or agencies to oversee them had been introduced in Ghana, Zimbabwe, or South Africa.

In Zimbabwe, to cite just one case, a study entitled *Management of Natural Resources and the Environment in Zimbabwe: The Case of Gold* noted with regard to the new 1989 investment code (revised in 1991 and 1993 and intended to streamline the country's investment climate and make it competitive with other countries):

> The policy actually emphasizes intensive use of local raw materials without any mention of the sustainability of such use. The need for increased investment and generation of employment has tended to overshadow environmental issues. When the environment is mentioned, it is almost invariably only in passing.[1]

In a similar vein, equally important social impacts were also accorded only marginal consideration, as illustrated by the World Bank's acknowledgement that until 1998, social impact assessment was not a significant consideration in comparison with biophysical impacts.

To summarise, while the reforms of the 1980s successfully ushered in and often went very far in the direction of economic liberalisation, their very conceptualisation, notably the manner in which they redefined the role of the state, made them inadequate to addressing liberalisation's well-known side-effects, including de-industrialisation, unemployment, increasing social inequalities, and environmental degradation.

It is important to establish what measures were proposed in the 1990s for the mining sector in Africa as certain of these shortcomings became increasingly apparent. Through their involvement in economic reform, the Bretton Woods institutions, and notably the World Bank, were to play a critical role in this regard.

1. UNCTAD, *Management of Natural Resources and the Environment in Zimbabwe: The Case of Gold*, prepared for UNCTAD by Oliver Maponga and Anderson Mutemererwa, Geneva: UNCTAD, 8 February 1995.

II. The Creation of a New Regulatory Framework for Mining in Africa in the 1990s The World Bank's Diagnostic and Recommendations

Discussion of the nature of the reforms proposed by the Bretton Woods institutions must be placed in the context of their mission as lending organisations with strategies favouring fiscal redress through increased export receipts in order to permit the reimbursement of debt. Consequently, as noted more generally by Feeney: "The main objectives of donor intervention in African mining – whether through technical assistance or investment financing should be to facilitate private investment and help reduce the country project-related risks for the private investor".[1]

These objectives are central to understanding the orientation of the reforms proposed in the 1992 and 1998 World Bank publications discussed below, and more specifically, the role of "facilitator" ascribed to the state for achieving the recommended objectives.

In 1992 the World Bank set out in its *Strategy for African Mining* its first systematic presentation of the reforms it considered were needed as a response to what the Bank regarded as the underperformance of the African mining sector, in spite of the continent's important mining potential. In fact, African mining attracted only 5% of world's mining exploration and capital expenditures.[2] In view of the continent's considerable mining potential and the significance of mining to certain African national economies, mining activity could provide "important benefits in terms of exports, foreign exchange earnings and tax receipts to support economic recovery in Africa".[3]

According to the study, two symptoms pointed to the poor performance of the mining sector. First, the industry's decline was revealed by African countries' declining share of world production of most materials (bauxite, rutile, and uranium being the only exceptions) between independence and the 1990s. Second, there remained a lack not only of geological information, but also of new exploration activity. Africa succeeded less well, continued the report, than other regions in attracting new investors, while investment in exploration was only about 1% of the mineral production

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1. Patricia Feeney, "The Human Rights Implications of Zambia's Privatisation Programme", edited by Micheal K. Addo, *Human Rights Standards and the Responsibility of Transnational Corporations*, Great Britain: Kluwer Law International, 1999, p. 326. Quoted from World Bank, *Agenda for African Mining in the 1990s*, Washington D.C.: World Bank.
2. World Bank, *Strategy for African Mining,* World Bank Technical Paper No. 181, Africa Technical Department Series, Mining Unit, Industry and Energy Division, Washington D.C.: World Bank, 1992. Quoted by Patricia Feeney, *op. cit.*, p. 326.
3. World Bank, 1992, *op. cit.*, p. x (introduction).

(this amount was up to 10% in other regions). As a result of the mining industry's poor situation, the World Bank's 1992 projections indicated that African mining was less well placed to take advantage of the increased demand projected for the 1990s than Latin America and Asia.

The objective of the *Strategy for African Mining* was to explain the situation and to propose policies to improve Africa's performance as compared to Latin America and Asia. In its analysis of the underlying causes, the World Bank excluded the external cause – a reduction in demand in the 1980s resulting from stagnation in world consumption of most metals and minerals. Also excluded was a possible worldwide shortage of mining investment funds. The bad performance arose, the study concluded, from African countries' failure to attract development funds and risk capital or to adapt themselves positively to the specific needs of the mining industry in the new international context. The solution put forward in the Bank's study was the introduction of a series of regulatory and institutional reforms, which were justified as follows.

The mining industry has quite specific characteristics. It is very capital-intensive, in addition to being high-risk, investments being based on many assumptions such as metal prices, production levels, operating costs, and taxes.[1] Moreover, mining is a "global industry". Most African production is exported and sold on international markets and, consequently, African production has to be internationally competitive.

However, most African states, according to the study, do not have the necessary risk capital to invest, or the management and technical capabilities. It was national states that assumed this role after independence. As states were drawn into the cycle of indebtedness, they were no longer able to sustain the development of African potential. Future development of the mining industry would, therefore, "largely depend on attracting new high risk capital from foreign mining companies".[2] In the past, in most cases it was "international mining companies which provided the management and technical capabilities and mobilized the necessary financing for projects to be identified and implemented".[3] This strategy was therefore seen as the best way to ensure the development of African potential and to improve the economic situation in the longer term by providing tax revenues. In this perspective, the "main objective of donor intervention in African mining – whether through technical assistance or investment financing – should be to facilitate private investment and help reduce the country- and project-related risks for the private investor".[4]

Consequently, in order to adapt to modern mining conditions, African countries had avoid state ownership and to have as their primary objective attracting private

1. "Mining Taxation Regimes", *Mining Journal*, 8 December 2000, pp. 451–2.
2. World Bank, 1992, *op. cit.*, p. 10.
3. *Ibid.*, p. xi.
4. *Ibid.*, p. xii.

investors. In order to better understand the concerns of international companies that invest in a developing country, the World Bank undertook a survey that was sent to eighty mining companies, including juniors and majors.

This survey revealed that, after mineral potential and existing infrastructure, the main decision criteria for potential investors are a stable legal and fiscal framework, which includes a mining code, contractual stability, a guaranteed fiscal regime, profit repatriation, and access to foreign exchange. Significant to our own analysis, the Bank noted *that macroeconomic data were less important because the mining sector is more isolated from other sectors of a national economy, except for certain features concerning earning and exportation, such as exchange rates.* Investors also look for a larger and a faster return on equity in Africa than in developed countries, because higher risk premiums are required for projects in developing countries. Investors also prefer to keep majority ownership. Finally, the document noted, investors are concerned about corruption and political risks and the lack of geological information in Africa. In short, "perceived mineral endowment, infrastructure, political stability, investment policies, and institutional framework, are all key determinants of exploration and investment decisions".[1] Because Africa's mineral potential is not in doubt, the main factor determining an investment decision is perceived risk, especially political risk.

What emerges clearly from the above is the extent to which consideration of what was needed to attract foreign investment was premised on a sectoral approach, rather than on the contribution of the mining sector to macroeconomic and broader development objectives, through inter-sectoral linkages, for example. Secondly, after the period of marked state withdrawal in the 1980s, what was clearly central to the World Bank strategy of the 1990s was the new role for governments in mineral-rich countries.

More precisely, the primary focus for governments of African countries was seen to be on how to take account of a precise set of concerns aimed at attracting investment and reducing investment risk for private mining companies. To achieve this, the World Bank prescribed recommendations in four main areas: a) appropriate regulatory framework; b) economic and fiscal policy; c) institutional reforms and infrastructure: and d) environmental effects.

a) The notion of a *regulatory framework* in the Bank study includes both the mining code and the issue of mineral rights and licences. A mining code "is the combination of statute law, regulations and agreements which governs the allocation, tenure and operation of mining rights".[2] The main qualities of an appropriate regulatory framework include clarity and stability, with minimal ministerial discretion, and coordination with other legislation. The same legislation has to apply equally to all

1. *Ibid.*, p. 18.
2. *Ibid.*, p. 21.

investors without distinction between private or public investors or their origin. As well, those rights need to be transferable. Moreover, such framework should ideally provide long-term security of tenure (20 or 30 years for exploitation, with renewal possibilities), with a clear definition of termination provisions and an easy conversion from exploration licences to exploitation licences. These rights are granted in exchange for certain conditions, notably minimum work commitments, which are considered preferable to large licence fees. In addition to work commitments or surface rentals, the Bank study is very specific about land surface relinquishment requirements. It recommends that after an initial phase of exploration (perhaps three or four years), 50% of the initial licence area should be surrendered and the effort on the remainder increased. Such regulatory frameworks are seen as a means to reduce investment risks in two ways: first by permitting stable policies and reducing the uncertainty factor, and second by providing protection against foregoing mining rights.

b) The object of *economic and fiscal policy* is presented as creating a certain balance between the company's risk in investing in a particular country in a context of international competition and the returns to a state from this investment in the exploitation of its resources. Tax revenues and foreign exchange receipts are "the major benefits to be derived from mineral development",[1] but because African countries are perceived to be high or medium risk investments, they have to be competitive in their taxes and incentives, according to the Bank, in order to attract investors and to improve their revenue in the long term and realise social objectives. Policy has first to be promoted within a sound economic environment, which includes macroeconomic policy and good governance. Of particular concern are exchange rates, because inflation could reduce profits, and free foreign trade, including the right to import goods and services and the "unrestricted" right to export products. Third, companies need to have access to foreign exchange "to pay for imports, service debts and, in the case of foreign investors, repatriate capital and dividends".[2]

Moreover, the report continues, an attractive tax policy should privilege earnings-based taxes over royalties (that should not exceed 1–2%),[3] export taxes, or import duties, in order not to increase operating losses arising from the cyclical nature of the mining business. In a long-term perspective, this approach presumes convergence between the interests of companies and government. Consequently, it would be in the government's interest to set up policy conditions for low-cost production by permitting companies to have access to least-cost supplies (local or foreign) and to reduce employment by introducing new technology. Finally, with regard

1. *Ibid.*, p. 27.
2. *Ibid.*
3. *Ibid.*, p. 32.

to government-company relations, the Bank suggests that government preferably use those revenues to provide social services rather than oblige the company to do so, and does not encourage state participation in mining projects.

c) To implement this new legislation, the World Bank recommended *institutional reforms,* including reform of state-controlled enterprises, setting up of new and adapted institutions, and regulating artisanal mining. The government is responsible for organising and supervising the privatisation of state-controlled mining companies, because "private investors are needed as majority partners in existing state-controlled mining companies if these are to reach their potential".[1] The absence of political pressure on the organisation and management, the freedom to hire and fire, and the capacity to maintain contacts with the outside world are factors put forward by the report to explain the superiority of privately owned enterprises.[2]

These objectives can be achieved through the sale of state-owned enterprises or by privatisation, a more complex process that "may require the involvement of external specialists".[3] As a result, the changing role of government from owner to regulator depends on the reconstruction of the institutional mining frameworks, which have to perform effectively. The World Bank recommends the creation of five institutions, each with a specific and well-defined role: a ministry of mines, a department of mines, (a sub-unit of the ministry of mines), a geological survey, a mineral promotion agency, and an environmental office. The department of mines would also recognise and formalise the reality of artisanal mining, and through realistic regulations would limit the associated problems, such as poor working conditions, health and safety concerns, environmental impacts, and lost government revenues.[4]

Sound policies are also required to ensure a good infrastructure and deal with environmental issues. Lack of *infrastructure* is often a deterrent to investment, suggests the study, especially at the exploration stage. Consequently it is to the advantage of governments to provide the necessary infrastructure.

d) In view of the fact that *environmental effects* of mining activity are generally localised, identifiable, and specific, and because adequate technology is available to deal with them, the study concludes, "the necessary measures to safeguard the environment and the health and safety of the population and the workforce can be incorporated into legislation".[5] Most state-run operations lack the funds for replacing old technology and, consequently, environmental conditions in such operations and in

1. *Ibid.*, p. 39.
2. *Ibid.*, p. 40.
3. *Ibid.*, p. 41.
4. *Ibid.* pp. 42–5.
5. *Ibid.* p. 47.

many artisanal mining activities lag behind those of industrialised countries. By contrast, notes the study, privately owned mines usually offer better environmental conditions. Moreover, "major international mining companies have adopted their own environmental protection standards which equal, and sometimes exceed internationally recognized standards such as those of the U.S. Environmental Protection Agency".[1]

What this illustrates well is the central premise of the 1992 study, namely that the role of government is to create a suitable environment for the private sector. This requires, concludes the study, "a clearly articulated mining sector policy that emphasizes the role of the private sector as *owner* and *operator* and of government as *regulator* and *promoter*" (my emphasis).[2]

The World Bank's 1998 publication, *Assistance for Minerals Sector Development and Reform in Member Countries,*[3] notably Appendix 2, "Summary of the Essential Elements of a Modern Mining Code", reads as a synthesis of and a call for financial support for the recommendations of 1992. Accordingly, "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".[4] The report acknowledges that these countries in Africa, Asia, Eastern and Central Europe, and Latin America vary greatly. Nonetheless, the report states, they:

> … 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 small and large-scale mining without imposing uneconomic fiscal burdens.[5]

Examples of successful countries are Chile, Indonesia, Papua New Guinea, and in Africa, Ghana. In the latter, the resurgence of the gold mining industry is noted and among the reasons given for this are the government's commitment to its private sector minerals development policy, the adoption of new mining laws in 1986, and the privatisation of the state Gold Mining Company assets in the 1990s. As well, it is noted that "taxes are not burdensome, and substantial foreign exchange sales revenues can be held offshore".[6]

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1. *Ibid.*, p. 48.
2. *Ibid.*, p. 53.
3. William T. Onorato, Peter Fox, and John E. Strongman, *World Bank Group. Assistance for Minerals Sector Development and Reform in Member Countries,* World Bank Technical Paper No. 405, Washington D.C.: World Bank, 1998.
4. *Ibid.*, p. 14.
5. *Ibid.*, pp. 14–15.
6. *Ibid.*, p. 15.

The study identifies thirteen essential elements of a modern mining code: the scope of the law; institutional framework; participation by affected people; access to mining activities; security of tenure; regulatory aspects; private land owners; ancillary licences and permits; other project activities; investment contracts; fiscal issues; and, finally, environmental and social matters.

While it is not possible to go into detail, the general thrust is that an appropriate legal and institutional framework (either government ministry or agencies) responsible for mining activities should operate "transparently"[1] and "should be comprehensive enough to allow the regulatory authority to act effectively".[2] Moreover, if there are state-controlled mining companies, "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".[3] What is proposed is a transparent and efficient state acting as a facilitator to the private sector, as opposed to one whose role is principally defined as fully assuming development initiatives.

There is striking continuity between the 1992 and 1998 reports, notably with regard to government's role in attracting investors through reform of the regulatory and institutional framework, elaboration of economic and fiscal policy based on balancing mining company risk and government revenues, and concern about the environmental impacts of mining activities.

In view of the fact that the recommendations in these two documents may be seen as sectoral proposals for sound economic management and institutional reform, that is for good governance presented as preconditions for sound economic development, we conclude this section by drawing attention to certain developmental aspects of the recommendations.

First, because the *raison d'être* of the policy reforms is the "economic recovery" of the continent through the important "tax revenues and foreign exchange" mining activities are expected to bring, a central aspect of the framework is the recommendations concerning mining tax legislation.

The incentives proposed by the World Bank to attract foreign investment have as their objective reducing investment risk for mining companies and reducing uncertainties. For the purpose of our analysis, we can distinguish between economic incentives and policy incentives, even if these necessarily overlap. Economic incentives aim at allowing a company to be competitive in the international market. They include: right to import goods and services, unrestricted right to export, access to foreign exchange funds; right to repatriate capital and dividends, and right to market and process products freely. Public funds to finance infrastructure, or amounts to

1. *Ibid.*, p. 30.
2. *Ibid.*, p. 32.
3. *Ibid.*, p. 30.

be spent on exploration, are also economic incentives. Policy incentives aim at reducing uncertainty and constraints on mining activities. They include security of tenure and clear termination procedures, non-participation of the state in mining projects, the free transferability of mining rights, easier conversion of exploration licences to exploitation licences, and the easier extension of the right to explore/exploit one mineral to other resources in the same area. The recommendation to not restrict a company with regard to employment policy or social obligations, and the right to shut down for economic reasons are also considered forms of incentive.

The World Bank suggests that mining tax legislation should be based on an equitable share of mineral revenue for the state as balanced against the risk taken by the company. This is said to be a particularly relevant criterion in an international context in which most countries of Africa are considered high or medium risk. Mining tax legislation must take a long-term perspective in order to maximise investment, and must consequently avoid increasing investment risk, especially in the initial stages of a project when costs are higher.

This is why the World Bank recommends the introduction of an earnings-based tax, responsive to cyclical market conditions, rather than high royalties, import-export taxes, or fuel taxes that increase operational costs. An income tax and dividend withholding tax (if applicable), suggests the study, should be comparable to other countries and, therefore, about 35–45%, while a royalty should not exceed 1–2%, and import-export taxes should be reduced or not applied. An additional profit tax, which has a disincentive effect on potential investors, should not be used in most African countries, suggests the study. State participation is seen as unnecessary because it is not an effective way to obtain economic rent and could result in the project being under-capitalised. Some measures are necessary to reduce investment risk, such as tax relief at the beginning, accelerated depreciation allowances, and amortisation of exploration expenditure (100% for the first year), Moreover, "capital assets and intangible development expenditure should be depreciated over ten years or the estimated life of mine, whichever is the less".[1]

Finally, further aspects of mining legislation, which will be further considered in the case studies, include the management of the environmental and social consequences of mining activity. Concerning environmental issues, both World Bank documents underline the importance of these issues and emphasize the role of new technology for improving environmental and economic performance. According to the argument, this circumstance and the social pressures on mining companies encourage international mining companies to respect environmental codes. The 1998 document stresses the importance of environmental impact studies. It also suggests tax deductions for environmental expenditure.

1. World Bank, 1992, p. 33.

By the end of the 1990s the issue of social impacts of mining as a new element of Bank policy remained far less developed than other aspects of regulatory frameworks. On relations with communities, the World Bank recommended the participation of affected people and NGOs in a consultative process. It also suggested the protection of indigenous peoples. However, regarding the compensation of private landowners (the share between state and company), the study remained far less prescriptive than on other issues. In relations between communities and mining companies, the Bank suggested that the ultimate power of decision rest with the state and the mining minister if negotiations failed. In this area as well, the role of government is as regulator and facilitator, but, again, very much with a view to creating a suitable environment for private investment.

Certain consequences of the implementation of such frameworks will now be examined through five case studies that may be seen to illustrate different generations of the ongoing process of mining code reform in Africa.

III. Mining Codes and Environmental Regulations Several African Examples

In this third section, a comparative examination is presented of the evolution of mining legislation and environmental regulations in several African countries in order to examine different aspects of the impact of mining and certain environmental consequences from a developmental perspective. In each study, particular attention will be paid to the capacity of local states "to influence and structure society", as Biersteker proposed, through their capacity to regulate, monitor, and enforce measures in the area of mining activities. The process of reform has been ongoing and extensive: 35 African mining codes had been revised by 1995 and many of these and others have been revised again since then. The case studies have been selected to represent three moments in this process. The experience of Ghana may be seen to illustrate the first generation of codes in the 1980s; Guinea the second generation of the mid-1990s, and Mali, Madagascar, and Tanzania, a third generation of African mining codes at the end of the 1990s.

A. THE FIRST GENERATION OF REFORMED MINING CODES

Mining Legislation and Net Returns from Mining in Ghana

Thomas Akabzaa

In Section I, a brief overview of the mining legislation introduced in the 1980s in Ghana was presented. As already described, from the inception of Ghana's economic policy changes in 1983 to date, the mining sector has witnessed an important investment boom and increased production, particularly in the gold sector. There has been considerable growth in the number of new mines and exploration companies. The sector has also attracted a significant number of sector support companies, such as catering and transport companies, explosive manufacturers, mineral assay laboratories, etc. The sector has increased its contribution to gross foreign exchange earnings and has attracted substantial foreign direct investment funds over the years. Public officials in mining-sector support institutions, particularly the Minerals Commission, are unanimous on the positive impacts of the mining sector reforms and are instrumental in pressing the need for further reforms to make Ghana more competitive, as countries such as Tanzania, Guinea, and Burkina Faso emerge as the latest to provide more investor-friendly mining codes.

According to the acting chief executive of Ghana's Minerals Commission, the government of Ghana's main objective for the mining sector at the commencement of the Economic Recovery Program (ERP) was to quickly attract investment into the mining sector, along with other key sectors which had export potential, to help turn around the general economy of the country. That significant success had been achieved in attracting investments is in no doubt. "Over $6 billion of private investment capital was injected into the mining sector for mineral exploration and for the establishment of new mines as well as in the expansion and rehabilitation of already existing mines, over the period from 1983–98".[1] The same author asserts that increased investment has resulted in an increased number of mines and ballooning mine production and gross export values. The mining sector's contribution to national export earnings increased from less than 20% in the mid-1980s to 40% of total merchandise exports earnings since 1992, and assumed the position of the single largest gross foreign exchange earner from 1992.

1. B.N.A. Aryee, "Ghana's Mining Sector: Its Contribution to the National Economy", *Resources Policy* 27, 2001, pp. 61–75.

Despite the massive foreign direct investments, according to a recent analysis, the sector has yet to make an impact, however, on the country's overall economy.[1] There is growing unease, despite the boom, with regard to the real benefits accruing to the ordinary Ghanaian in the mining communities and to the country as a whole, in light of the extremely generous fiscal and other incentives given to mining companies under the mining sector reforms, and further pressure from mining companies and the World Bank for more reforms. As observed by Patricia Feeney, the World Bank strategy is surprisingly silent on measures that might be required to protect the rights of vulnerable segments of the society during the economic transition.[2] Ghana's structural adjustment program generated considerable social costs and had considerable negative impact, especially on the most vulnerable segments of the society (the rural poor, women, and children).

The ongoing World Bank-sponsored reform process portrays an ever narrower role for the Ghanaian state in mineral resource management. Significant changes being advocated include complete government withdrawal from participation in minerals projects, lowering royalties, permanency of mineral rights, and review of the role of the state in the mining sector, including existing prerogatives to cancel leases, to interfere in transfers of equity among private investors, etc.[3]

It has been suggested that a thorough cost/benefit analysis of the resurgent mining sector would probably return a negative figure. This is because of such factors as the high level of fiscal incentive enjoyed by mining companies, the constrained capacity of the sector to generate significant local labour employment, lack of capacity for value added processing, and the huge amounts of foreign exchange earnings retained in offshore accounts.

The progressive reforms in the country's mining code have resulted in the scaling back of corporate income tax liability and the provision of more specific fiscal allowances that aim to reduce the general tax liability of mining sector operators. In order to situate more recent proposals, it is helpful to recall, as noted above, that corporate income tax, which stood at 50–55% in 1975, was reduced to 45% in 1986, and further scaled down to 35% in 1994. Initial capital allowance to enable investors to recoup their capital expenditure was increased from 20% in the first year of production and 15% for subsequent annual allowances in 1975 to 75% in the first year of operation and 50% for subsequent annual allowances in 1986. The royalty rate, which stood at 6% of the total value of minerals won in 1975, was reduced to 3% in 1987. Other duties that contributed significantly to government revenue from the

1. Akabzaa, *op. cit.*, p. 20.

2. Feeney, *op. cit.*

3. IDA Supervision Team, *Aide Memoire on Ghana Mining Sector Development and Environment Project*, Supervision Mission: 2–16 May 2001.

sector before the reforms, such as the mineral duty (5%), import duty (5–35%), and foreign exchange tax (33–75%), were all abolished.

Table 1: Comparison of earlier fiscal elements of various fiscal policies implemented in the mining sector

ITEMS	SMCD[a] 5 1975	ACT 437: INVESTMENT CODE 1981	PNDCL[b] 153 REGIME 1986	AMENDMENT 1994	Proposed Amendts. 2002[c]
Corporate Income Tax Allowances	50 – 55%	45%	45%	35%	35%
Initial Capital Allowance	20%	20%	75%		75%
Subsequent Annual Capital Allowance	15%	N.A	50%		50%
Investment Allowance	5%	N.A	5%		5%
R & D Allowance	N.A	25%	N.A		NA
Royalty	6%	2–6%	3–12%		3% or less
Min. Turnover Tax	2.5%	2.5%	N.A		N.A
Mineral Duty	5–10%	5–10%	N.A		NA
Import Duty	5–35%	5–35%	N.A		NA
Foreign Exchange Tax	33–75%	33–35%	N.A		NA
Import Licence Tax or Import Levy	10%	10%	N.A		NA
Government shareholding	55%	55%	10%		0%
Gold Export Levy	3 cedis/oz for every oz above 100,000 oz	3 cedis/ oz for every oz above 100,000 oz	N.A		NA
A.P.T			25%		0%

a. SMCD – Supreme Military Council Degree
b. PNDCL – Provisional National Defence Council Law
c. This proposal was before parliament for ratification in 2002.
Source: Constructed from various investment and Minerals Codes

An analysis of the linkage effects of foreign investment in the mining industry usually employs the concept of retained value – the share of the total value of production retained within the host country[1] – to evaluate the contribution of the sector to national development. The higher the actual export value returned to the national economy, the more the economy is positively impacted by the sector. Holders of a mining lease are permitted by the Bank of Ghana to retain a minimum of 25% of the operator's foreign exchange earnings in an external account for the purposes of procuring equipment, spare parts, raw materials, and for dividend payments and remittances in respect of goods for expatriate personnel, among others. Each company negotiates directly with the government the exact percentage that can be retained outside Ghana.

Currently companies maintain between 60% and 80% of their export earnings in foreign accounts. The Bank of Ghana maintains, however, that an average of 71.2 %

1. Craig Emerson, "Mining Enclaves and Taxation", *World Development*, vol. 10, no. 7, 1982, pp. 561–71.

of value of all mineral exports is held in offshore accounts. The retained value of 28.8% is perceived as inflated, as no adjustment is made for the import content of local purchases, such as petroleum products, explosives, and other consumables in the mine. Estimates that government revenues represent less than 40% of the retained value may therefore be considered excessive.

In view of the level of foreign exchange earnings allowed in the offshore accounts of the various mining companies, only a small percentage of earned foreign exchange trickles back into the national economy. This pattern is documented in the same study by the following table:

Table 2: Retention and Surrender Levels of Gold Exports

		Amounts $ Million			
	Levels (%)	1998	1999	2000	TOTAL
RETENTION OFFSHORE	71.2	491.995	491.581	505.907	1489.483
SURRENDER TO BANK OF GHANA	28.8	192.908	162.154	176.963	532.025

C. Retention/Surrender Levels

Year	Total Gold Export ($ million)	Retention Amount	Retention Level %	Surrender Amount	Surrender Level %
1998	687.76	492	71.5	192.908	28.0
1999	710.82	491.58	69.2	162.154	22.8
2000	702.03	505.91	72.1	176.963	25.2
TOTAL	2100.61	1489.483	70.9	532.025	25.3

Furthermore, the country's hope of increased employment generation in the mining sector following reforms has largely been a mirage. The sector has a relatively limited capacity to generate employment, as surface mining operations that dominate the mining landscape are capital intensive with relatively low labour requirements. All post SAP mining ventures have been surface operations. The divesture of former state-owned mines resulted in significant restructuring of these mines to ensure efficiency and cost cutting by their new owners, with notable retrenchment of the existing workforce as part of the restructuring process. Many of the mines have undertaken substantial downsizing of their labour force in the last three years especially. Between 1992 and 2000, there was a net loss of more than 8,000 mine jobs. Ironically, while there is growing reduction in the levels of local employment in the sector, the quota of expatriate employees in the sector has grown. (Table 3)

Consequently, despite its position as the leading foreign exchange producer, the mining sector only contributes a meagre 2% of the country's GDP as compared to agriculture, which accounts for about 36% of GDP.

There is concern from official sources, voiced notably in the country's finance committee of parliament at Akosombo[1] to the effect that too much concession has

been made to investors and, in particular, that no corporate tax comes from the sector except in the form of royalty payments and income taxes of employees.

Table 3: Labour Statistics for Producing Mines

(EXCLUDING SMALL MINERS)

MINERAL	DESCRIPTION	1994	1995	1996	1997	1998	1999	2000
Gold	Total Labour	18049	19557	18674	18028	19422	16129	15120
	Expatriate Staff	210	229	215	213	251	231	219
	Local Staff	17839	19328	18459	17815	19171	15898	14901
Total Industry								
	Total Labour	21272	22519	21030	20343	21261	17858	16537
	Expatriate Staff	224	234	229	221	261	242	233
	Local Staff	21048	21048	21048	21048	21048	21048	21048

Moreover, it has been pointed out that most companies operate open pit mines with relatively short lifespans. With generous tax incentives provided in the form of capital allowances, companies benefit from a virtual tax holiday throughout their operations and most often run out of reserves and close before they are expected to pay corporate income tax.

The above study has been limited to the contribution of the sector in terms of the net returns to the country by way of royalties, income tax, etc. A more complete evaluation of the overall impact of the sector would have to consider other relevant factors, including the negative environmental impact of mining, the subject of the next case study, and the growing redundancies associated with the privatisation of state-owned mining companies. Moreover, the growing incidence of conflict between mining communities and their chiefs, on one hand, and mining companies, on the other, reflects the growing disquiet about the effects of the mining sector-led structural adjustment program and the ongoing process of reform on the population.

1. Akabzaa, *op. cit.*, p. 21; "From Mining Sector – Too Much Concession?" in *Business Watch*, vol. 2, no. 1, January 1998.

B. THE SECOND GENERATION OF REFORMED MINING CODES

Guinea: Deregulation and Its Consequences for Environmental Protection

Bonnie Campbell

In Guinea, a country of enormous mineral wealth,[1] it was in the context of the introduction of structural adjustment measures in the mid-1980s, and the resulting process of liberalisation and state withdrawal, that new environmental protection policies were put forward.[2]

The process of drawing up a Guinean National Action Environmental Plan began in 1989 and emerged in the context of the World Bank's 1987 initiative to encourage such plans as a means to ensure that environmental policy be nationally rather than foreign driven.[3]

While it is beyond the scope of this paper to present a complete analysis of the 1993 Plan National d'Action pour l'Environnement (PNAE), which is over 300 pages long, several of its characteristics seem particularly noteworthy.

Most fundamental is the fact that the 1993 PNAE was based on the premise that protection of the environment and the nature of the pattern of development were intimately linked, a point to which we shall return.

With respect to the mining sector, the 1993 PNAE raised the challenge of the costs and benefits of developing this critical area of activity as one of the principal issues in environmental management. Guinea, the document noted, is fortunate in having good mining potential. However, continued the 1993 PNEA, "the country's landscape is scarred by large open cuts left by open-pit mining from which wastes

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1. Apart from its enormous reserves of high grade bauxite, estimated at 20 billion tons, or one-third of the world's highest grade deposits, which at present, according to the World Bank, represent approximately 40% of international trade in this material, it is estimated that Guinea's mineral reserves include the following:

Iron Ore	12 billion tons
Gold	500 tons
Diamonds	25 million carats
Nickel	73 million tons
Chalk	40 million tons
Graphite	11,000 tons

2. This subsection presents a summary of Bonnie Campbell, "Environmental Policies, Mining and Structural Adjustment in Guinea", *Journal of Mineral Policy, Business and Environment. Raw Materials Report*, published by Raw Materials Group, Stockholm, vol. 13, no. 1, April 1998, pp. 34–44.

3. Émilienne Anikpo N'Tame, "L'Afrique face au futur: L'Afrique va-t-elle vers une catastrophe écologique à l'horizon 2025? Quelles options stratégiques prendre?" *African Development Review*, Special Issue on Africa and the Future, vol. 7, no. 2, December 1995, p. 222.

are not sufficiently controlled and where the surfaces which have already been mined are not always rehabilitated" (my translation).[1]

With regard to the conceptualisation of environmental policy, the section on "Global Strategies for the Management of Natural Resources" contains a subsection (C. III pp. 97–9) that deals with "Popular Participation in Conservation", which explicitly links the protection of the environment and the nature of development strategies: "The problem of the conservation of resources is narrowly associated with the implementation of an alternative economic strategy which favours rural people".[2]

The Plan goes on in a subsection on the "Struggle against Poverty"[3] to explicitly set out the links between environmental policy, sustainable development, and the reduction of poverty. An effective strategy aimed at simultaneously resolving the problems of poverty and those of the environment, continues the document, must not only be based on the improvement of production and the social conditions of the population, decentralisation, and local participation, but also on a process of democratisation with the support of a competent and conscientious administration.

With regard to the institutional context, the Plan calls for a series of quite specific reforms.[4] These include promoting the Conseil National de l'Environnement, (CNE) by associating it with a political entity at the highest level, the creation of departmental units within the CNE, and the restructuring of the territorial organisation of environmental services.

What becomes quite apparent is the recognition by the 1993 Plan that carrying out its recommendations will depend on political support at a high level. In this regard, the Plan is explicit:

> There needs to be an independent civil body staffed by highly trained cadres who have the necessary financial and technical backing, as well as political support at a sufficiently high level. This body must have a mandate to carry out research and analysis with a view to reinforcing national institutions and possess knowledge of local operations so as to be in a position to act as advisor to the ministries concerning the financial and technical management of projects (my translation).[5]

Having noted the lack of information, the Plan describes in specific terms in a chapter of 36 pages projects that could contribute to the collection and systematising of information, including the creation of national norms adapted to an inventory of Guinea's natural resources.[6] Finally, a last section sets out the nature of the institu-

1. République de Guinée, *Plan national d'action pour l'environnement (PNAE),* Conakry, December 1993. p. 14.
2. *Ibid.*, p. 98.
3. *Ibid.*, pp. 196–8.
4. *Ibid.*, p. 201.
5. *Ibid.*
6. *Ibid.*, p. 235.

tional framework that is seen as necessary to carry out the 1993 PNAE. The underlying principles explaining the need for such a framework are reaffirmed. The first of these reiterates the links between rational management of the environment, on the one hand, and social and economic development, on the other. In order to achieve these objectives, the state, it is specified, must recognise its fundamental responsibility of ensuring coherence in the use of resources by the different agents of development:

> The renewable and non-renewable resources of all the country represent essential aspects of the environment. Their development and rational management are the guarantee of the sustainable economic and social development of the nation as a whole. For the Republic of Guinea in particular, these preoccupations must become the fundamental mission of the State in order to ensure the coherent use of resources within the different sectors of development (my translation).[1]

To conclude, therefore, the conception of environmental management contained in the 1993 PNAE is one that sees environmental concerns intimately linked with developmental strategies, both in terms of the analysis of the origin and the nature of the environmental problems and also the proposed strategy to remedy such problems. Furthermore, this analysis of environmental questions led to the recommendation favouring an interventionist role for the public sector in the coordination and harmonisation of sectoral interests in order to ensure environmental protection.

Less than a year after the release of the first PNAE in December 1993, a new PNAE was published in September 1994. In very important ways, the second Plan represents a clean break with the ideas contained in the first.[2] One noteworthy example is the explanation the 1994 document gives for the origins of environmental degradation. These are attributed to two main internal weaknesses:

1. The poor performance of the agricultural system (extensive cultivation, erosion, etc.);
2. Habits that led to the over-exploitation of natural resources (the use of fire to hunt, over-cutting of forests, etc.).[3]

This illustrates a central point, which has been dealt with more extensively by Clapp: "Much of the recent literature on Africa's environmental crisis today focuses almost

1. *Ibid.*, p. 305.
2. Interestingly, in the references included in the Background and Preparatory Studies to the 1994 PNAE, (Annexe 4), no mention is made of the 1993 PNAE, which was a far more elaborate document (330 pages as opposed to 54 pages plus annexes in 1994). It is also interesting to note in the introductory summary to the 1994 PNAE a considerable number of references to the important role played by foreign experts in completing the document and with regard to their future support for activities in this area.
3. République de Guinée, *Plan national d'action pour l'environnement (PNAE)*, Montpellier: Parc Scientifique Agropolis, September 1994, Résumé, p. i.

exclusively on internal dimensions, such as the self-perpetuating cycle between environmental degradation and domestic policies, population growth, and poverty".[1]

The 1994 PNAE is very reticent about the negative impacts of industry or mining on the environment. Consequently, demographic growth is portrayed as the chief agent of environmental degradation. In fact, in the chapter concerning "Objectives and Strategies", one may read: "Durant les trois dernières décennies, la croissance démographique a été à l'origine de la quasi-totalité des problèmes environnementaux".[2] ("For the last three decades, demographic growth has been the origin of almost all environmental problems". My translation.)

Interestingly, the 1993 PNAE had argued that it was difficult to show a direct link between an increase in population size and growing environmental degradation. In the 1994 document, such a perspective seems to have been set aside, because the analyses concerning the environment appear to have been subordinated to strategies favouring the pursuit of a particular notion of economic growth. The objective of linear, quantifiable growth (although without specification as to growth of what or for the benefit of whom), is put forward as the paramount solution to all other development objectives. Therefore, the positive contribution of activities in the industrial and mining sectors, it is asserted, should not be questioned on the grounds that they might cause pollution.[3]

What is proposed, therefore, is not a change in present patterns of growth, but the adoption of certain "corrective measures", which are presented as capable of rectifying past management errors. Before exploring the question of the proposed strategies, it is useful to note the manner in which the 1994 PNAE presents industrial pollution, and more specifically that from mining.

Two brief paragraphs are devoted to this subject. In the first of these, having referred to the dust from alumina production at Friguia, discussion of the whole subject is rapidly concluded with a statement to the effect that after dust pollution reached exceptionally high levels during the dry season in the 1980s, the problem of emissions from Friguia was in large part resolved by a dust control system in the company's port loading activities.[4]

This conclusion, although seriously questioned by alternative sources such as NorWatch,[5] is very much in line with the positive presentation of the mining sector

1. J. Clapp, "Global Economic Factors in Africa's Environmental Crisis", edited by Amadou Sesay and Sola Ankinrimade, *No Place to Hide: Africa in the Post-Cold War. Essays in Honour of James Mayall*, Washington D.C.: Mimeo, 1997, p. 29.

2. PNAE, 1994, *op. cit.*, p. 40.

3. PNAE, 1994, *op. cit.*, p. iii.

4. PNAE, 1994, *op. cit.*, p. 21.

5. The Economist Intelligence Unit, *Country Report*, 3rd quarter, 1996, p. 16; A spokesman for Norsk Hydro, a partner in Friguia, admitted that the company was not happy with mining methods used at the site, but said that the measures to improve the local environment were being implemented and would be in place within the next two years. *Ibid.*

contained in the 1994 PNAE, which suggests in its summary introduction concerning environmental considerations that the country is blessed with exemplary development in the mining sector ("un développement minier exemplaire").[1]

In contrast to the 1993 PNAE, which adopted a broad perspective in which development and environment were presented as conceptually interconnected, in the 1994 document, environmental protection, rather than having socioeconomic and political dimensions, is seen as essentially a technical problem. Consequently, "the PNAE must correct the management errors".[2]

Given the fact that the origins of environmental problems are essentially attributed to poverty and lack of economic growth, the 1994 PNAE goes on to suggest that the solutions lie in technical progress, on the one hand, and with economic liberalisation on the other, "which provides a real possibility for exchange and access to factors of production and market products, as well as lasting disenclavement".[3] In the country's move towards greater economic liberalisation from 1985, the first priority according to this document has been the withdrawal of the state from the productive sector.

As with economic development, the PNAE 1994 proposes a minimalist and managerialist view of the state in the area of environmental policy. More specifically, it recommends that it be the private operators who should intervene.[4] The role of the public sector is to orient, to encourage, and to stimulate partnership agreements with entrepreneurs in the private sector, as well as to draw up regulations and to see to their implementation. The relevant measures are considered to have been promulgated, notably the *Code sur la protection et la mise en valeur de l'environnement* and the mining code, which calls for the rehabilitation of sites in order to renew their agricultural or forestry potential.

Consequently, the role of the state is seen as regulatory, one of bringing in complementary legislation and ensuring that measures are compatible and enforced. Little or nothing, however, is said about conceptualising national objectives, controlling the application of legislation, and carrying out enforcement sanctions.

Beyond a segmented view of the nature of environmental problems, which are considered as distinct rather than as an inseparable component of development, environmental management appears to boil down in the last instance, according to the 1994 PNAE, to a technical matter of drawing up and seeing to the application of rules that are to be implemented by private operators.

To summarise, the fundamental contrasts with the 1993 PNAE are the following:

1. PNAE, 1994, *op. cit.*, p. i.
2. PNAE, 1994, *op. cit.*, p. iv.
3. PNAE, 1994, *op. cit.*, p. i.
4. *Ibid.*, p. 22.

1. Environmental policy in the 1994 document is placed in the context of the priority given to economic growth strategies, which present market forces as capable of resolving environmental problems on condition of the withdrawal of the state. Consequently, this perspective presents the benefits of economic growth as unquestionably superior to the social costs of environmental degradation. It is this framework that helps to account for the minimisation of negative impacts from mining and industry, which, as we have seen, are quite clearly very real.
2. With the 1994 PNAE, the whole impetus for policy formulation, monitoring, training, and producing information seems to have moved from the situation of at least partial national re-appropriation conceptualised in the 1993 document, to a very much heavier dependence on external initiatives, expertise, financing, and support.[1]

This striking transformation of a key Guinean planning document on natural resource policy poses a number of contradictions.

The increasing move towards economic liberalisation accompanied by measures of deregulation and privatisation after the early 1990s appears to have been accompanied by an increasingly segmented approach in which environmental issues were treated in abstraction from overall development patterns. Simultaneously, there seems to have occurred an increasing externalisation of the policy process in the area of natural resource management, in which foreign technology, training, and finance are called upon to assume a more active and even decisive role. Paralleling this evolution, since the beginning of the 1990s the responsibility for environmental issues was transferred from its initial central place in the Ministry of Natural Resources, Energy and the Environment, created in March 1986, to an intermediate position when the former ministry was split at the end of 1994 into the Ministry of Energy and the Environment and the Ministry of Mines and Geology. At the end of 1996, in the context of the further liberalisation of the economy, the environmental portfolio was moved once again so that it is now no longer with either of the above two ministries but became the responsibility of the Ministry of Public Works.

In this context, the planning principle for environmental policies put forward by the 1994 PNAE is that this document should serve merely as a vehicle for integrating a number of sectoral plans (Forestry, Equipment in Conakry, Urban Environment of Conakry, etc.) rather than providing the directive thrust for a more developmental approach, in which environmental preoccupations are at the heart of development strategies, as had been attempted in the 1993 PNAE.

In keeping with the call for state withdrawal as part of the increased liberalisation presented in the 1994 PNAE, emphasis is placed on the decentralisation of the environmental planning process, initiatives, and agents. In conformity with subsequent

1. "The PNAE has already been selected as the framework for the intervention of the World Bank in this sector" (my translation). *Ibid.*, p. 49.

recommendations by the Bretton Woods Institutions that Guinea do more to attract private investment, what is particularly noteworthy is the lack of consideration of the negative environmental impacts in the industrial and mining sectors, and the assumption that any difficulty in these areas should and can be righted by private operators through encouragement rather than constraint.

Hence, the World Bank's 1996 *Mining Sector Investment Promotion Project* sets out what may be considered as a proposal to "re-regulate" in order to strengthen the government's capacity to facilitate a very specific objective – to help attract private investment for mining sector development.[1] This particular project comprised four aspects: i) a legal component, aimed at improving the overall legal and regulatory framework for the mining sector; ii) a data component, aimed at furnishing essential information, including a mining data bank; iii) an institutional component, aimed at strengthening the government's capacity to facilitate private investment and apply regulations in the mining sector; and iv) a restructuring component to assist government to select options and prepare detailed plans for restructuring, privatising. or liquidating those mining enterprises in which it retained a major interest. The document is quite specific about the overall thrust of the objectives, as illustrated by the second aspect, which specifies that the aim is to "furnish adequate geological information to private investors".[2] The hypothesis appears to be that initiatives for and control over developments in the mining sector are best left to foreign private enterprises. Hence, nothing is said about the potential re-regulating role of government to ensure development objectives, whether these be access to a net sustainable return of value-added, monitoring, and capacity to enforce environmental and social norms, or labour standards.

To summarise, the strategy in favour of further opening the economy proposed by the 1995 mining code and subsequently appears to be based on the argument that openness will encourage vigorous competitive markets in which prices rather than social policies will drive the behaviour of firms and the factors of production they employ, and so provide an optimal allocation of resources. Realistic sustainable environmental outcomes, continues this mode of reasoning, are most likely to be achieved by privately owned companies acting in response to the pressures of the free market. However, as Andersen suggests, it is not clear how these "best environmental practices" will work. In other words, self-regulating markets may depend on quite specific circumstances. It would seem that the most important of these would be intense public scrutiny and highly competitive markets, notably in countries that have deposits sufficient in size and grade to attract multinationals. The same author continues:

1. World Bank, *Mining Sector Investment Promotion Project*, Report No.15291-GUI, Industry and Energy Division, Western Africa Department, Africa Region, 10 May 1996.
2. *Ibid.*, p. 10.

> The primary challenges for the government, and its regulators, will be to negotiate financial terms and agreements which capture a sufficient share of the rent; to have regulations in place which are fair, appropriate, and consistent; and, if necessary, to have the capacity to enforce agreements and compliance with environmental regulations.[1]

If developments in the Guinean mining sector since the late 1980s and 1990s illustrate one thing, it is the country's difficulty in meeting this primary challenge – negotiating financial terms for the conditions of extraction of its key resources, bauxite and alumina, in order to maintain minimally stable, rather than declining, export receipts and government revenue from this critical sector. Moreover, in the absence of intense public scrutiny and in the presence of a leading mining sector characterised by oligopoly, it is difficult to see how openness, accompanied by state withdrawal, could be claimed to help guarantee vigorously competitive markets.

As in the case of poverty reduction, so for environmental protection: appropriate policies depend on development strategies that ensure the capacity of the state not only to legislate and regulate but also to negotiate effectively, to enforce and redistribute, and above all, to "make visible a strong and unified political will".[2]

In the absence of public scrutiny, competitive markets, or such a capacity for state intervention, the present conceptualisation of Guinean economic growth strategies may well have unfortunate, cumulative, and perverse consequences in that they may contribute to endangering natural resource endowments, increasing poverty, and hence compromising more sustainable patterns of social and economic development.

A study carried out in 2001 in Guinea in collaboration with the Institut des Sciences de l'Environnement of the Université du Québec à Montréal suggests the extent to which environmental impacts have escaped proper scrutiny:

> There has occurred a deterioration in the quality of air due to dust emissions from bauxite in the atmosphere and this is especially the case during the dry season [November to May]. The quantity of dust emitted is such that its effects are felt even in Guinea Bissau, that is, several hundred kilometres away from Kamsar [the port from which bauxite is exported]. Moreover, massive deforestation linked to mining activity has contributed to displacing certain animal species, because now that the soil is barren, it is very poor. The Compagnie des Bauxites de Guinée (CBG) is presently trying to develop a reforestation technique that will be lasting in view of the advanced state of soil degradation. To these problems one must add the management of wastes and oils which result from the maintenance of mining installations and equipment, as well as the management of different social impacts which result from the displacement of local villages due to the extension of the area of activities (my translation).[3]

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1. Kathleen Andersen, "Mining, Privatization and the Environment", *Journal of Mineral Policy, Business and Environment, Raw Materials Report*, published by Raw Materials Group, Stockholm, vol. 11, no. 3, 1995, p. 7.
2. *Ibid.*, p. 28.
3. Geneviève Nolet, *Envirobref*, Institut des Sciences de l'Environnement of the Université du Québec à Montréal, February–March 2001.

One is left with the impression not only of the inadequacy of past environmental protection measures but also of the gap between this heritage and the approach set out in current legislation in this area.

C. THE THIRD GENERATION OF AFRICAN MINING CODES

Mali: Rewriting the Mining Code or Redefining the Role of the State?

Pascale Hatcher

It is said that during his pilgrimage to Mecca in 1325, the Emperor of Mali, Kankou Moussa, distributed so much gold along the way that its value in the world declined.[1] However, as a result of the vagaries of history, Mali is now a highly indebted country whose economic and social situation contrasts starkly with its wealthy past. In fact, literally invaded by the Sahara Desert, dangerously exposed to fluctuations of cotton prices and, unfortunately, one of the ten poorest countries on earth,[2] Mali in the twenty-first century shares with its wealthy past only its great gold reserves, now the subject of considerable interest by major international institutions as well as foreign mining companies.

This recent interest has been driven among other things by the drafting of a new mining code. Modelled explicitly on the Ghanaian code,[3] Mali's 1999 code illustrates what we have defined as the third generation of African mining codes. However, because the foremost objective of the recent transformation of the country's mining legislation has been to attract foreign investment to this industry, certain questions remain unanswered, notably with regard to the redefinition of the role to be played by industry and its contribution to public revenues, which, at least in principle, should enable the state to carry out certain social functions. In this section, we seek to show that, as in the case of Ghana, Madagascar, and Tanzania the transformation of the state's role in the mining industry through mining code reform is not necessarily compatible with meeting the development challenges that present themselves in Mali.

This hypothesis will be demonstrated in three steps, namely through the analysis of certain of the economic, social, and, lastly, environmental implications of the new Malian mining code.

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1. Soulemayne Dembele, "Environnement au Mali. ONG: partenaires ou prestataires de services?", Info-CCA, *Bulletin de liaison du Comité de Coordination des Actions des ONG au Mali*, No. 152, Bamako, September 2000.
2. Mali is ranked 153rd of 162 countries by the UNDP. Source: World Bank Group, *Countries: Mali*, April 2002, [web] http://www.worldbank.org/afr/ml2.htm.
3. Mark Keatley, "Africa's Gold Potential", speech by the Policy Division of the International Finance Corporation, presented to the World Gold Conference, London, 22 June 1992.

Why a New Code?

Mali's Gold Industry

In a manner similar to most African countries, Mali introduced numerous structural adjustment measures in the mid-1980s and throughout the 1990s in an attempt to reform its economy in accordance with the advice of major international donors. However, the results achieved over two decades of adjustment are, according to the international financial institutions (IFIs), quite limited. The IFIs, as well as the large bilateral agencies, are unanimous in their view that only the initial phases of adjustment were successfully completed, even though "the major macroeconomic balances were restored, debt controlled, the economy liberalized and the business environment reformed".[1] These organisations go on to point out that the efforts made by the government of Mali were inadequate: "Although the structural adjustment efforts helped Mali to turn its back on a closed and highly controlled system and become one of the most open and most liberal economies in the CFAF zone, there was little change in the economic structure".[2]

Given this conclusion, Mali decided to continue liberalising its economy, and it would appear that the special champion of this trend has been the gold industry. Since 1999, the industry has supplanted cotton as the most important of the country's export products, notably because the cotton industry suffered a crisis of such severity that production plummeted by 47% in 2000–2001.[3] This West African country, the 16th largest gold producer on earth, is currently the continent's fourth largest producer after South Africa, Ghana, and Zimbabwe, and is very close behind the latter country (see Table 1). Although Mali's subsoil contains an abundant variety of mineral resources, gold is by far the most important, if not the only resource-generating activity in the country's mining industry (see Figure 1).[4]

The gold industry, which created more than 2,240 jobs in 1998,[5] is experiencing an exceptionally high growth rate, reaching 210% in 1997.[6] Mali's gold production, all of which is exported, is making a major contribution to the improved trade balance, accounting for 39% of the country's export revenues.

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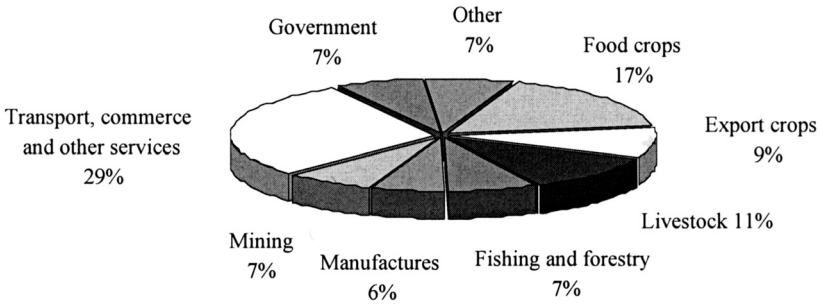
1. Translation. Centre français du Commerce extérieur, *Le point sur les privatisations au Mali, MAJ*, December 2001, [web] http://www.izf.net/izf/Opportunities/privatisations/mali.htm.
2. Translation. International Finance Corporation (IFC), *Profil du Mali*, [on-line] (http://www.ifc.org/abn/cic/mali/french/prof.htm).
3. World Bank Group, 2002, *Countrie: Mali, op. cit.*
4. Other resources include: iron, bauxite, phosphates, copper, zinc, lead, lithium, manganese, barytes, fluorite and construction materials, including limestone, gypsum, clay, marble, kaolin, etc. Source: United Nations Conference on Trade and Development (UNCTAD), *An Investment Guide to Mali*, United Nations in collaboration with Price Waterhouse Coopers, New York and Geneva: Internet edition UNCTAD, January 2001, p. 18, [PDF] http://www.unctad.org/en/docs//poiteiitm24.en.pdf.
5. Anonymous, "Ressources minières: 55 tonnes d'or et un secteur en expansion", *Le Soleil*, Dakar, 15 March 2002, [web] http://fr.allafrica.com/stories/200203150301.html.
6. UNCTAD, 2001, *op. cit.*, p. 18.

Figure 1: Analysis of GDP by Industry, 2000



Organization for Economic Cooperation and Development (OECD), Mali. African Economic Outlook, OECD/AfDB2002, 10 January 2002, p.201, [PDF] http://www.oecd.org/pdf/M00039000/M00039350.pdf.

Table 1: Estimated Total Gold Production, Mali (tonnes), 1985 to 2001

Year	Small Scale	KALANA	SYAMA	SADIOLA	MORILA	TOTAL
1985	4.613	0.595	-	-	-	5.208
1986	4.239	0.402	-	-	-	4.461
1987	4.208	0.446	-	-	-	4.654
1988	4.167	0.350	-	-	-	4.517
1989	2.079	0.288	-	-	-	2.367
1990	2.061	0.200	1.977	-	-	4.238
1991	2.887	0.252	2.465	-	-	5.604
1992	2.862	-	3.298	-	-	6.099
1993	3.323	-	3.038	-	-	5.900
1994	3.514	-	2.903	-	-	6.203
1995	3.219	-	3.996	-	-	7.496
1996	3.200	-	4.329	-	-	7.529
1997	3.100	-	4.106	12.217	-	19.428
1998	2.200	-	4.707	16.489	-	18.700
1999	2.300	-	6.103	17.586	-	25.989
2000	2.500	-	5.667	16.802	4.208	29.177
2001[a]	1.700	-	1.652	11.606	12.258	27.216

[a.] Reference period: June
Source: Keitha, Seydou, *Étude sur les mines artisanales du Mali*, September 2001, p. 12
[PDF] http://www.iied.org/ mmsd/mmsd_pdfs/asm_mali_fr.pdf.

If Mali's gold production has more than doubled since 1995,[1] this expansion has undoubtedly resulted from the growing presence of foreign mining interests. The country's three main mines are controlled by companies managed by international consortia made up notably of interests from South Africa (Randgold) and Canada (Iamgold), as well as the International Financial Corporation, in addition to the gov-

1. *Ibid.*, p. 3.

ernment of Mali.[1] It should be noted that this interest in Malian gold is in part explained by the fact that operating costs in Mali are exceptionally low, especially at the Morila Mine, where the operating cost is between $130 and $150 per ounce, whereas the world cost for the comparable period was between $230 and $250.[2]

The presence of foreign mining interests in Mali is likely to increase significantly in the coming years. It is estimated that about $55 million has been spent over the last ten years in exploration in the country, despite high energy costs and lack of infrastructure.[3] Twenty-eight companies were granted exploration leases in 1998 at a time when the country's gold reserves were estimated at over 800 tonnes.[4] In principle, Mali's annual production is expected to rise from 23.7 tonnes in 1999 to more than 40 tonnes by 2004.[5] These impressive projections are explained by the recent discovery of the Morila Mine, whose reserves are estimated at approximately 170 tonnes of gold.[6]

However, the recent drop in world gold prices, which were at their lowest level in 23 years,[7] resulted in a decline in investment and a slackening of exploration activities in the country. This downturn is likely to delay exploitation of the Kodiéran, Loulo, Ségala, Tabakoto, and Kalana mines.[8] The fact is that just as for the mining industry as a whole, gold mining is highly capital-intensive, risky, and has a limited life. For example, the feasibility studies for these mines were carried out before the fall in prices, on a $330 per ounce basis, whereas prices ranged between $270 and $290 per ounce in 2002.[9] Furthermore, it is estimated that gold production costs will fall by $20 per ounce by 2006 as mining increases in Third World countries. These numbers show how competitive the gold industry is, and above all, "the need for gold producers to keep shaving costs as the dollar gold price continues to fall".[10]

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1. In 1998, the three largest mines in Mali were:
   Syama: This mine is operated by the Société des mines de Syama (SOMISY), which is controlled by an international consortium consisting of Randgold of South Africa (75% interest), the government of Mali (20%), and the International Finance Corporation (5%);
   Sadiola: This mine is operated by the Société d'Exploitation des mines d'Or de Sadiola (SEMOS), an international consortium consisting of Iamgold of Canada (38% interest), Anglogold of South Africa (38%), the government of Mali (18%), and the International Finance Corporation (IFC) (6%).
   Morila: This mine, which started production in February 2001, is operated by Randgold and Anglogold.
   Source: Associates for International Resources and Development (AIRD) and École nationale de l'administration du Mali, *The Value of Gold for the Republic of Mali*, Cambridge, 3 April 2002, p. 11, [PDF] http://www.andover.edu/aep/papers/faculty/maligold.pdf.
2. Anonymous, "Mali Poised to Become Third African Gold Producer", *Panafrican News Agency*, Internet Edition, 3 August 2000, [web] http://allafrica.com/stories/200008030336.html.
3. Keatley, *op. cit.*
4. AIRD and École nationale de l'administration du Mali, *op. cit.*, p. 11.
5. *Ibid.*
6. Anonymous, August 2000, *op. cit.*
7. AIRD and Ecole Nationale de l'administration du Mali, *op. cit.,* p. 7.
8. Anonymous, 2002, *op. cit.*
9. *Ibid.*
10. Stewart Bailey, "Gold Producers Struggle to Keep Up", *Miningweb*, Miningweb Review for March 2002, Johannesburg, 21 February 2002, [web] http://www.miningweb.co.za.

The Introduction of a New Mining Code

Given the economic potential in this sector, international financial institutions strongly encouraged the government of Mali to reform its industry in order to make it more attractive to foreign investors. In 1991, Mali significantly liberalised its mining code with the assistance of the International Development Association. Before that date, gold production in Mali was small-scale and represented only about three tonnes per year.[1] The first major mining code after the country's independence was put forward in 1963, replacing the (much amended) government order of 1899 imposed by metropolitan France on her colonies in West Africa.[2] But in the context of the wave of liberalisation supported by the World Bank in particular, Mali decided in 1991 to amend its mining code once more[3] (see Table 2). Support for these reforms was also forthcoming from the World Trade Organization (WTO), which has pointed out that the Malian mining industry has been revived by the adoption of this new code, which offers guarantees and various tax and customs advantages.[4]

However, mirroring the Ghanaian reforms and the enthusiastic reaction of foreign companies to them, in 1999 Mali again amended its mining code to make it more attractive and provide greater incentives.[5] According to Ibrahima Kantao, Mali's director of mining and geology, the new code would enable the country to attract more foreign investors, thus making Mali "one of the major poles of African gold trade".[6]

Following discussion of a number of preliminary versions, Mali's new code was adopted in September 1999, integrating the various policies advocated in the mining policy document, including: "clarity, transparency, State participation, stable fiscal and customs regimes, equity, incentives for reinvestment, environmental protection, competitiveness, jobs, etc."[7] Last, the new code was aimed at "substantially increasing the share of mining products in the GDP by fostering private investment in the sector".[8]

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1. Keatley, *op. cit.*
2. For more on this topic, see in particular: Seydou Keitha, *Étude sur les mines artisanales du Mali*, September 2001, p. 30 [PDF] http://www.iied.org/mmsd/mmsd_pdfs/asm_mali_fr.pdf.
3. Mining legislation in Mali consists of Law No. 63 – 51/AN – RM of 31 May 1963, followed by three orders: No. 34/CMLN of 3 September 1970; No. 91 – 065/P – CTSP all 19 September 1991; and, last, No. 99 – 032/P – RM of 19 August 1999.
4. World Trade Organization (WTO), "Diversification of Exports Should Strengthen Mali's Trade", *Trade Policy Reviews*, Press Release, PRESS/TPRB/88, Secretariat and Government Summaries, 13 November 1998, [web] http://www.wto.org/english/tratop_e/tpr_e/tp88_e.htm.
5. Claudie Gosselin and Bani Touré, *Cohérence des politiques et interventions canadiennes dans la lutte contre la pauvreté: Le cas du Mali*, Ottawa: North-South Institute, November 2000, p. 27.
6. Anonymous, August 2000, *op. cit.*
7. Translation. Anonymous, 2002, *op. cit.*
8. Anonymous, "Malian Government Adopts New Mining Code", *Panafrican News Agency*, 5 August 1999 [web] http://allafrica.com/stories/199908050013.html.

Table 2: Comparison of Mali's Mining Codes, 1991 and 1999

Fiscal Regime (CFAF)		
	1991 code	1999 code
Professional Gold Washer's Card	5,000	n/a
Fixed Tax on Issuance of Exploration Permit regardless of area covered	300,000	500,000
Exploration Permit Renewal Tax (each renewal)	300,000	500,000
Fixed Tax on Issuance of Mining Permit regardless of area covered	1,000,000	1 500,000
Fixed Tax on Issuance of Prospecting Licence	300,000	400,000
Fixed Tax on Issuance of Licence to Open a Quarry - Class 1 - Class 2 - Class 3	 5,000 5,000 nil	5,000– 100,000
Fixed Tax on Issuance of Mining Licence	700,000	500,000
Tax on Renewal of Mining Permit	n/a	2,000,000
Capital Gains Tax on Transfer or Transmission of Mineral Exploration or Mining Rights	n/a	20%
Companies holding mining permits and licences must pay: 1. Annual rent based on area: a) for exploration permits and prospecting licences: - /km^2 for first validity period - /km^2 on first renewal - /km^2 on second renewal b) for mining permits: - /km^2 for first 3 three years - /km^2 for 4th and subsequent years c) for mining licences: - /km^2 per year. 2. Additional Royalty (*"ad valorem tax"*): 3. Service Delivery Contribution (CPS):	 50 100 200 50,000 75.0 50,000 3% 3%	 1,000 1,500 2,000 100,000/year n/a n/a n/a
Periodic Payment of Extraction and Material Removal Taxes proportional to volume:	100/m^3 of material extracted	300/m^3 of material extracted
Special Tax on Certain Products (ISCP)	n/a	3%

Table based on Mali's mining codes, 1991 and 1999
1,00US$ = 705.33 CFAF

As pointed out by Modibo Coulibaly, the country's national director of geology and mining, in addition to these changes:

> The primary purpose of the mining policy adopted by the government in November 1998 is to substantially increase the contribution of mineral products to GDP. The strategy for implementation of this policy was to assign the private sector the role and mission of assuming the business risks by contributing the financial, material and human resources required to develop the mining industry, in a simple, clear and transparent framework; the State will focus on the fundamental functions of establishing basic infrastructures, creating an environment conducive to investment, promoting the industry, etc.[1]

1. Translation. Anonymous, 2002, *op. cit.*

The proposed changes in the state's role in this key area of Mali's economy are directly in line with the policies advocated by the World Bank, which, it may be recalled, encouraged the state to relinquish its role of "owner/operator of mining interests" and assume the role of "regulator/administrator".[1] This approach explains the current privatiation of the Kalana Gold Mine, the Loulo gold mining companies (SOMILO), the Syama S.A. Mining Corporation, and the recent winding up of the national mineral exploration and exporting corporation (SONAREM), which specialised in mineral exploration and mining.[2]

The Government of Mali and the New Mining Code – Some Questions

The introduction of a new code and the resulting changes in the government's role raise certain issues regarding the current and future capacity of the government of Mali to pursue development objectives and, more basically, to guarantee its citizens' fundamental rights. It now seems clear that the gold industry represents and will represent, for at least the next ten years, one of the largest sources of government revenue. The question is whether the new mining code will provide the government with an adequate share of resources to permit it to pursue development objectives without hampering foreign private investment in the sector, and without attracting criticism from international financial institutions. In order to briefly explore these thorny issues, we propose to address three related aspects of the new legislation: the economic, the social and, last, the environmental implications of the Malian mining code.

Certain Economic Implications of the 1999 Mining Code

In addition to its undeniable contribution to international trade, mining is a significant source of revenue for the government of Mali. In this regard, the Canadian company SOGEMA, which received a contract from the Canadian International Development Agency (CIDA) to carry out an internal revenue mobilisation project (PAMORI), points out that after 20 years of adjustment, Mali can allow itself to increase its tax revenues, which in 1997 were among the lowest in sub-Saharan Africa.[3] Also according to SOGEMA, the macroeconomic stabilisation effort tended to prefer cuts in public spending over increases in tax revenues for the purpose of reducing the budget deficit: "Thus, the trend was to achieve a balanced bud-

1. Peter Van der Veen, "The World Bank Experience, Lessons From 10 Years of Mining Sector Reform: The Road Travelled", *Mining Taxation Workshop*, Washington D.C.: Mining Department, 4–5 April 2000, p. 3.
2. Centre français du Commerce extérieur, *op. cit.*
3. Mali's tax revenues represent 11% of GDP. Source: SOGEMA, *Extraits du protocole d'entente entre le Canada et le Mali,* [web] http://www.crcsogema.com/pamori/projet_4.html#entente.

get in a downward rather than upward direction, i.e., by cutting services that were already inadequate".[1] These policies dramatically weakened the country's government services to such an extent that, "the decline in public spending was close to reaching a floor beyond which availability of public goods in Mali was likely to collapse".[2] Given this situation, an increase in revenues has become one of the country's prime objectives. While the same report targets the investment portfolios of Malians, 80% of whom "pay practically no direct income taxes", there is no reference to the opportunity available to the government of Mali to benefit from the unprecedented expansion of the mining industry. Still according to SOGEMA, higher entry taxes (customs duties) are out of the question because of the regional integration process in which Mali is participating, and because of market globalisation, which is proceeding hand in hand with a worldwide decline in customs tariffs.[3]

Thus, despite recognition of the urgent need to replenish the public treasury, the government of Mali has increased the number of tax exemption measures in order to attract foreign mining companies. And in line with the recommendations concerning the reform of mining codes set out by the World Bank, the new Malian code increases measures to attract even more private investment.

In parallel with its withdrawal from its role as operator in the mining industry in order to assume that of regulator (i.e., promote private investment), the government of Mali guarantees the security of mineral titles. In this regard it should be pointed out, however, that the document *Review of Legal and Fiscal Frameworks for Exploration and Mining* criticises the fact that Mali does not grant exclusive prospecting rights, or priority for exploration licences covering the region in which interest is expressed.[4] Furthermore, survey rights in Mali are not transferable, although mining permits are assignable and transferable. As in the case of Tanzania, Mali "provides a special right for the purpose of conducting a feasibility study after the exploration phase".[5] According to the same document, one of the most important factors for investors during the exploration phase is the right to proceed from exploration to mining (continuity of tenure), and this is recognised by Mali's mining code.[6]

As regards annual surface area fees, Mali offers an "escalating annual fee per surface area", which apparently enables the country to attract foreign investment that is not affected, once mining starts, by charges considered too high by a mining operation in its early stages.[7] It should also be pointed out that mining companies are

1. Translation. *Ibid.*
2. Translation. *Ibid.*
3. *Ibid.*
4. Koh Naito, Felix Remy, and John P. Williams, *Review of Legal and Fiscal Frameworks for Exploration and Mining,* London: Mining Journal Books, 2001, p. 38.
5. *Ibid.*, p. 45.
6. *Ibid.*
7. *Ibid.*, p. 50.

entitled to free conversion and free transfer of profits and funds resulting from exploitation of the mine.

More specifically, mining companies operating in Mali are subject to the following taxes:[1]

- Income Tax: 35%;
- Dividend Tax: 12.5–18%;
- Royalty: 3% special tax on mineral products;
- Import Duty: 5–10% UEMOA common external tariff;
- Export Duty: none;
- Value Added Tax: exemption for the first three years of production;
- Tax holiday: none;
- Exchange Control: none;
- External Account: allowed;
- Tax Stability: yes, but the length is not specified;
- Government Equity: up to 20%.

In summary, the Malian Ministry of Finance states that during the exploration phase, "certified companies pay only some royalties related to private exploration of public property. They are also exempt from paying turnover taxes (T.V.A. and T.P.S) which might unduly burden the cost of exploration operations".[2]

The attempt to attract private investment underlying the above quotation is supported by a perusal of the list of exemptions provided by the government of Mali to mining companies during the first three accounting periods of production or mining. Such companies are exempt from:[3]

- Income Tax on professional earnings;
- Income Tax on property income and tax on property in mortmain;
- Registration and Stamp Duties;
- Value Added Tax and Service Delivery Tax;
- Income Tax on investment income;
- Contribution on patents;
- Tax on insurance policies.

Although the government of Mali has lauded the potential of the gold industry for increasing government revenues, a 1997 study shows that the gold industry's contri-

1. *Ibid.*, p. 73.
2. Translation. Ministère des Finances du Mali, "Avantages du code minier", Tecsult, 8 June 2002, [web] http://www.tecsult.com/EducMana/afriweb/mali/cdminier.htm.
3. *Ibid.*

bution to national GDP "is not as large as other estimates have suggested".[1] While the explanatory factors are no doubt multiple and complex, it is interesting to note, however, that in 1998, according to *Report on Business Magazine,* the Canadian mining company present in Mali, Iamgold, ranked third among companies whose revenues had increased most in Canada. The company's revenues totalled $63.6 million, up 393.1% over five years. Of these revenues, $8.7 million represented profits.[2]

Table 3 shows that the total taxes paid by the two Malian companies (SEMOS and SOMISY) over the 1995–99 period were CFAF56.29 million.

The paradox in which the government of Mali finds itself is important, since the government is no longer able to assume its role with respect to supplying services because of lack of revenues, even though, according to the prevailing argument, only foreign investment will increase government revenues through economic growth. Moreover, as will be seen below, present trends have also entailed far-reaching socioeconomic and environmental implications. Ironically, and revealing of the strength of current pressures to liberalise still further, in spite of the wide-ranging concessions with revenue implications of the 1999 Malian mining code noted above, there exists "concern on the part of certain elected officials who felt that it provided less of an incentive than the former provision".[3]

Certain Socioeconomic Implications of the 1999 Mining Code

One of the major problems of industrial-scale gold mining in Mali is undoubtedly the infringement by new industrial operators on the sites of traditional small-scale operators, and thus on their revenues. This has arisen because most gold-washing sites were transferred to the companies, since the government of Mali does not recognise land usufruct rights. It should be pointed out that it is in small-scale industry that Malian operators, both male and female, have historically been involved. In this regard, a report contrasting the impact of small-scale mining and industrial mining concluded: "The direct employment effects of the large-scale sector are limited".[4]

1. The writer points out in this regard: "Those analyses did not take into account the tradable (imported) portion of intermediate inputs and other goods and services purchased by mining companies and their suppliers and sub-processors. Calculated as a portion of the value of total gold exports in 1997 – CFAF 110 billion – the total quasi-rents retained in the economy amounted to 32% of the value of the resource produced that year. While it could be argued that this rate is not typical due to SEMOS's [Société d'Exploitation des mines d'Or de Sadiola] exemptions, it is also true that DNGM expects five new consortia to begin production within the next four years; exemptions for some companies will continue for the foreseeable future. Additionally, in 1997, direct taxes from all large-scale companies represent only 40% of the total impact; the rest is primarily backward linkage effects, with some marginal impact from wages and second-order effects". *Ibid.*, p. 19.
2. For information on this subject visit the official web site of IAMGOLD Corporation, http://www.iamgold.com.
3. Translation. Anonymous, "Le nouveau code minier adopté", *MaliNews*, Internet Edition, May 2000, [web] http://www.multi-canal.com/mali/mali052000.html.
4. AIRD and Ecole Nationale de l'Administration du Mali, *op. cit.*, p. 12.

In addition, Malian-owned projects remain restricted in scale, since Malians are unable to sustain the large investments required by the industrial sector. Indeed, in December 2001, only 55 of the 143 mining titles in effect were owned by Malian companies.[1]

Table 3: Taxes paid by SEMOS and SOMISY, 1995 to 1999 (CFAF Million)

		1995	1996	1997	1998	1999	Total 5 years
Taxes on salaries (CFE)							
	SEMOS	85	201	363	421	494	1563
	SOMISY	219	15	281	315	261	1260
Social security contributions (INPS)							
	SEMOS	226	552	997	1355	1564	4693
	SOMISY	532	455	698	779	772	3235
CPS and *ad valorem* tax							
	SEMOS	15	9	4814	5636	6142	16615
	SOMISY	1395	1404	1499	1455	1780	7533
Land rent/other rent withholding tax							
	SEMOS	0	0	0	0	0	0
	SOMISY	0	0	0	0	0	0
Registration, stamp duties							
	SEMOS	24	0	0	0	0	24
	SOMISY	0	0	0	0	5	5
Customs duties							
	SEMOS	3	377	127	137	107	751
	SOMISY	1863	2337	5415	6679	4311	20605
Total	SEMOS	352	1139	6301	7549	8312	23653
	SOMISY	4009	4380	7894	9227	7128	32638
TOTAL		4361	5519	14194	16766	15440	56291

Source: PAMORI, pp. 16, 18 (Tables 2,4). Data for 1997 (italics are used in Table 5. 1.00US$=33 CFAF)

Source: Associates for International Resources and Development (AIRD) and École Nationale de l'Administration du Mali, *The Value of Gold for the Republic of Mali*, *op. cit*., p. 13.

A study by Claudie Gosselin of the North-South Institute identifies some economic and social issues relating to the operation of the Sadiola Mine close to the city of Kayes:

> Population movements: Two villages (Sadiola and Farabagouta), representing about 1,100 people, were moved to allow operation of the mine. The standards associated with this mandatory displacement were those of the World Bank. According to the report, the local population had no property titles and no right to financial compensation from the government of Mali for the expropriation.[2] In addition, the population of Sadiola village has increased threefold since the start of mining operations in the region. This huge population increase is said to have been accompanied by a spread of cases of AIDS and all STDs, "which rose to the highest rate in the region".[3]
>
> Regional development: On this topic, the study finds that: "The mine has apparently had a limited economic impact on the Kayes region. Development of educational and health infrastructures benefited only the Sadiola region". It would appear that few Kayes merchants had

1. Anonymous, 2002, *op. cit.*

2. Gosselin and Touré, *op. cit.* p. 62.

3. Translation. *Ibid*., p. 63.

the opportunity to supply the mine and its city with materials, which are usually transported by Senegalese carriers. Furthermore, the report points out that the road between Kayes and Sadiola was built to meet the needs of the mining company rather than local populations. Finally, "the tax revenues and dividend income collected by the government of Mali ... seemed to remain in Bamako".[1]

Company social fund: To avoid social disruption at the time of the closure of the mine, which is anticipated in 2004, SEMOS is currently working on a gold washing project which should provide up to 300 jobs.

Certain Environmental Implications of the 1999 Mining Code

From an environmental point of view, the gold industry raises major ecological issues, particularly with regard to the risk of deforestation and the destruction of wildlife through mining operations; the relocation of those populations affected by the opening up of new fields; soil destruction and erosion through drilling; pollution of subterranean and surface water by chemicals discharged by the operating companies (cyanide, lead, mercury, etc.); air pollution through release of smoke and dust; large-scale disappearance of wildlife due to blasting in quarries, and the effects of dust on the forest.[2]

At least in theory, the introduction of the new Malian mining code should enable the government to cope more effectively with these environmental risks. In fact, Article 80, relating to environmental protection, states that any application for a mining licence or permit must now be accompanied by an environmental impact study, and approval of the feasibility study is subject to acceptance of the environmental impact study. The administration responsible for mines and the environment is responsible for verifying whether operators comply with the environmental requirements.

According to the World Bank, Mali enjoys extensive and customised environmental protection through its Environmental Action Plan.

While there is no doubt that the new code is stricter in terms of environmental protection, there remains the thorny issue of the government of Mali's capacity to enforce, strengthen, and evaluate the related requirements. When questioned about the measures contemplated in Mali to deal with the environmental problems associated with mining operations, Modibo Coulibaly, national director of geology and mining, responded as follows: "A multidisciplinary team regularly conducts missions to monitor environmental problems on operating sites. And for its self-monitoring requirements each mine has its own environmental team. So far, we have not noted any major environmental problems".[3]

1. *Ibid.*
2. Dembele, *op. cit.*, p. 5.
3. Anonymous, 2002, *op. cit.*

In fact, as in most countries in sub-Saharan Africa, it would appear that the government of Mali does not have the financial and institutional capacity to enforce its own environmental requirements. Mali is no exception as regards the reluctance of governments to introduce strict environmental legislation for fear of dissuading foreign investors. Indeed, this situation is confirmed by Soulemayne Dembele in the *Bulletin de liaison du Comité de Coordination des Actions des ONG au Mali*:

> Environmental problems were taken into account during the negotiation of agreements with the operating companies, through establishment of environmental restoration plans: however, it must be acknowledged that implementation of genuine environmental restoration and protection programs remains fairly half-hearted.[1]

A field investigation by Claudie Gosselin in 2000 at the Sadiola Mine confirmed the comments of Soulemayne Dembele in some respects. Although the operators of this open pit mine, which uses highly toxic chemicals such as cyanide and hydrochloric acid during the production cycle, say that they have implemented a highly sophisticated safety system to monitor use of these products, the study refers to a Canadian working in the area who "told us he had seen empty cyanide drums for sale at the Kayes market"; these are used to carry water.[2] In addition, the same study mentions a witness who stated that "large areas of land were stripped of forest during the exploration phase and were never replanted – this happened in a region affected by desertification".[3]

Conclusion

The introduction of the new Malian mining code raises many questions. We have noted that Mali has recently enjoyed unprecedented growth in its mining sector and especially in its gold industry. Whereas in most other gold-producing countries some mines are being closed as a result of the gold crisis, Mali is bucking the general trend in a spectacular manner, as illustrated by the announcement of the opening of the Morila Mine, whose gold reserves are the envy of many gold producers.

Despite the exponential growth of its gold industry, the paradox is that Mali's economic, social, and environmental situation remains extremely alarming. After 20 years of reform, Mali is still one of the ten poorest countries on earth, and government services have been perilously limited by structural adjustment measures.

Given this situation, as we have seen, the government of Mali introduced a new mining code in 1999 with the central goal of attracting foreign investment into the industry. There is no doubt that the new code is in conformity with the recommendations recently issued by the World Bank. The government of Mali offers foreign

1. Translation. Dembele, *op. cit.*

2. Translation. Gosselin and Touré, *op. cit.*, p. 27.

3. Translation. *Ibid.*

companies a wide range of economic incentives, supported by undeniable tax exemptions.

At the same time, however, the problem of the near failure of public services provided by the government of Mali remains totally unresolved – a situation confirmed by the observations of Canadian contractors carrying out structural adjustment measures in Mali. It is therefore of key importance to draw attention to the paradoxical situation of the Malian government, which, because it is starved for revenues, has been inclined to adopt the dogma that its fundamental role is to promote foreign investment, even at the expense of abandoning its own development role – that of ensuring the minimal conditions necessary for the social and economic development of its population.

Madagascar: A Mining Industry Caught Between Environment and Development[1]

Bruno Sarrasin

While the mining industry in Madagascar does not occupy a place as important as it does in certain other sub-Saharan African countries such as Guinea or the Democratic Republic of Congo, the country nonetheless possesses substantial natural resources. Located in the Indian Ocean some 500 kilometres off the southeastern coast of Africa, Madagascar, with an area of 587,000 km^2, is the world's fourth largest island. Known for, among other things, its rich biodiversity, it ranks with Brazil, Australia, Colombia, and Indonesia among the five countries with the largest number of animal species.[2] It has, for example, the third greatest diversity of primates, with 32 species, all indigenous; 30 chameleon species; over 135 amphibian species, and 260 bird species.[3] The richness and variety of plant life is comparable to that found in tropical countries as a whole. The country's "natural" originality is the result of its isolation: most of the animals living in Madagascar are unique and are evidence of an evolutionary period found elsewhere in the world only in the fossil record. For example, several of these primitive species represent, for many natural science disciplines, the "missing links" required to cast light on the relationships between certain contemporary animal groups.[4]

Despite its rich natural resources, however, Madagascar is economically poor. Since the mid-1980s, its biodiversity – usually referred to as its "environment" – has become the focal point of international funding, resulting in the preparation of a "development model". In order to fully appreciate the issues associated with the emergence of the mining industry in Madagascar and the role assigned to the industry in this "model" by the multilateral financial institutions – notably the World

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1. A French version of this text was published in the review *Afrique Contemporaine* (La Documentation française), no. 208, 2004.
2. (Biodiversity Hot Spots). See in particular R.A Mittermeier, "Primate Diversity and the Tropical Forest: Case Studies from Brazil and Madagascar and the Importance of Megadiversity Countries", edited by E.O. Wilson and F.M. Peters, *Biodiversity*, Washington, D.C.: National Academy Press, 1988, pp. 145–54.
3. Since our objective is not to present a detailed account of Madagascar's biodiversity, readers are referred to: Martin E. Nicoll and Olivier Langrand, *Madagascar: revue de la conservation et des aires protégées*, Gland (Switzerland): World Wildlife Fund, 1989; R.A. Mittermeier, *op. cit.*; Olivier Langrand, *Guide to the Birds of Madagascar*, New Haven: Yale University Press, 1990; R.A. Mittermeier et al., Lemurs of Madagascar, Washington, D.C.: Conservation International, 1994; Patricia C. Wright, "The Future of Biodiversity in Madagascar", edited by Steven M. Goodman and Bruce D. Patterson, *Natural Change and Human Impact in Madagascar*, Washington and London: Smithsonian Institution Press, 1997, pp. 381–405.
4. See Patricia C. Wright, *op. cit.*, p. 381.

Bank – this study adopts a political economy approach and begins by briefly presenting the economic situation in the country that led the government to support a liberalisation program, the pace of which has picked up in recent years. It will then be possible to consider to what extent the mining code adopted in 1999 has contributed to the withdrawal of the Malagasy state and, if deregulation has indeed occurred, to identify certain social and environmental impacts of the mining industry in this context.

Some Economic Indicators

Madagascar, an exporter of primary products (coffee, vanilla, cotton, sugar), like most sub-Saharan African countries, was severely affected by the two global economic crises in the 1980s and 1990s. This can be illustrated by the evolution of certain indicators set out in Table 1. For example, income per capita (GDP) has declined by 40% since the 1970s, and stood at US$260 in 2000. This indicator shows an annual average fall of -0.9% over the 1980s (1981–91) and of -0.1% during the 1990s (1991–2001). Such a trend means that, on average, population growth has exceeded the increase in production over the last 20 years. Although Madagascar has one of the lowest population densities of sub-Saharan Africa, its GDP per capita makes it one of the region's poorest countries.

According to the estimates produced in 2001 by World Bank economists, approximately 70% of the Malagasy population lives below the poverty line,[1] as compared to 43% during the 1960s, and 70% of the population lives in a rural environment, even though agriculture represents less than 35% of national production (Table 1). In other words, 68% of the population is poor and lives in a rural environment.[2] Although an evaluation of poverty would take us beyond the compass of this paper,[3] our starting point is that economic conditions have on average deteriorated in Madagascar between 1981 and 2001.

Obliged to introduce structural adjustment measures as of 1983, the Madagascar government has been commended by World Bank economists for introducing "good" policies after Didier Ratsiraka's socialist government radically changed the direction of its production model from agrarian collectivism to export-oriented capi-

1. The latest data are for 1994–2000 and appear in: World Bank, *Madagascar at a Glance*, Washington, D.C.: World Bank, 2001, p. 1.

2. World Bank, *Madagascar Second Environmental Programme*, Staff Appraisal Report No.15952-MAG, Environment Division and Indian Ocean Department, Africa Region, Washington, D.C., 27 October 1996.

3. See in particular David Morris, "Measuring the Condition of the World's Poor: The Physical Quality of Life Index", *Pergamon Policy Study*, no. 42, New York: Pergamon for the Overseas Development Council, 1979; Paul Streeten *et al.*, *First Things First: Meeting Basic Human Needs in Developing Countries*, New York: Oxford University Press for the World Bank, 1981; Paul Glewwe and Jacques Van Der Gaag, "Identifying the Poor in Developing Countries: Do Different Definitions Matter?", *World Development*, vol. 18, no. 6, 1990, pp. 803–14.

Table 1: Evolution of Some Economic Indicators, Madagascar, 1980 to 2001

Gross National Product, 2000 (GNP, Atlas method, US$ billion)				4.1
Gross National Product per capita, 2000 \(Atlas method, US$)				260
Average annual growth (%)	*1981–91*	*1991–2001*	*2000*	*2001*
Gross Domestic Product (GDP)	1.8	2.9	4.8	5.9
Gross National Product per capita (GNP/ per cap.)	-0.9	-0.1	1.6	2.8
Structure of the economy (% of GDP)	*1981*	*1991*	*2000*	*2001*
Agriculture	33.1	33.0	34.9	34.9
Industry	14.1	14.2	13.1	13.1
Services	52.8	52.8	52.0	52.0

Source: World Bank, *Le Partenariat Madagascar – Banque mondiale* [Madagascar – World Bank Partnership], Direction des Opérations pour Madagascar, Comores, Maurice et Seychelles, Antananarivo, 2002, introductory pages.

Table 2: Evolution of World Bank and International Development Agency Funding of Madagascar, by Economic Sector, 1971 to 2000

	TOTAL LOANS GRANTED, US$ MILLION			AVERAGE ANNUAL RATE OF INCREASE[b]	
SECTORS	1971–1980	1981–1990	1991–2000	1971–80 1981–90	1981–90 1991–00
Agriculture	64.3	163.2	158.95	9.8%	- 0.3%
Water Supply, Sanitary Infrastructures and Urban Development	20.5	68.3	52.3	12.8%	-2.6%
Education, Health, Nutrition, Population and Social Security	14	60.8	429.1	15.8%	21.6%
Electricity, Industry, Mining, Petroleum, Gas and Other Types of Energy	55.5	101	102.9	6.2%	0.2%
Environment	–	26	30	–	1.4%
Finance, Economic Policy and Private Sector Development	5	70	291.4	30.2%	15.3%
Public Sector Management	–	129.3	21.1	–	- 16.6%
Transportation	102.4	113	65	1%	- 5.4%
TOTAL	261.7	731.6	1150.75	10.8%	4.6%

[a.] Total loans granted by Bank, but not necessarily paid.
[b.] Geometric mean.
Source: Calculations based on World Bank data, 2002, [web] http://www.worldbank.org

talism. One specific result was a fourfold increase – between the 1970s and the 1990s – in total loans obtained by the government of Madagascar. As shown in Table 2, funding granted to Madagascar by the World Bank rose by an annual average of 30.2% over the period from 1971–80 to 1981–90 (the 1980s), and by 15.3% from 1981–90 to 1991–2000 (the 1990s), for finance, policy, and private sector development, i.e., structural adjustment. Although the World Bank is not the only institutional player involved in funding Madagascar, it should be stressed that in addition to the undeniable role played by its representatives in designing the "model" for development in Madagascar, funding from the Bank represented 33.47% of the country's external debt in 2000, making it the largest single lender.[1]

With regard to the mining industry, the World Bank has funded three projects over the 1981–2000 period, for a total of US$57.35 million. More than 85% of this funding relates to support for the development of a more liberal regulatory framework for this industry, a topic to which we shall return.

Madagascar's "development model"

With World Bank support, during the 1980s the government of Madagascar prepared a general development policy for the country based on three main goals: anti-poverty initiatives, restoration of internal and external fiscal balances, and the quest for a better regional balance.[2] From the viewpoint of the Bank's analysts, the three goals of this policy were attainable through three major joint initiatives that were implemented during the late 1980s: structural adjustment programs (SAP), the environmental action plan (EAP), and the social improvement program (PASAGE).[3] However, the convergence of these three types of programs has certainly not been demonstrated, as indicated by an evaluation report on the EAP released a few years later:

> Due to economic and social factors directly related to the general state of poverty, forest resources are constantly declining and this trend has now a tendency to accelerate. On the other hand, the budget austerity measures adopted under the auspices of the adjustment programs are hampering government initiatives to protect the environment. This is true of the management of forests which is increasingly incapable of dealing with forest degradation, despite the provisions implemented to avoid or limit deforestation.[4]

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1. The data are from: World Bank, *Madagascar at a Glance*, Washington, D.C., 2002, p. 2. The World Bank funding is through the International Development Agency (IDA). For purposes of comparison, the debt associated with the IMF represented only 2.55% of the total in 2000, and only bilateral funding (mainly France, but also the United States, Germany, Japan, and Italy) represented a total greater than the World Bank group, at 37.26%.
2. See in particular World Bank, USAID, Coopération suisse, UNESCO, UNDP, and WWF, *Madagascar Environmental Action Plan: Volume 1 – General Synthesis and Proposed Actions*, preliminary version, July 1988, p. 4–3.
3. *Ibid.*, p. R-2.
4. Translation. World Bank and Office national de l'environnement (ONE), *Évaluation par les bénéficiaires du Programme environnemental I (PE1)*, MIARA-MITA, November 1995, p. 53.

Despite many contradictions, structural adjustment, the environmental action plan, and PASAGE were identified by the Bank as the "tripod" for the implementation of Madagascar's general development policy. Acceptance of this assertion involves support of the liberalisation program and the definition of "development" proposed by the World Bank, which is based mainly on "economic" growth.[1] In this connection, during the late 1980s the institution's analysts added that a "dynamic program" in the area of population was necessary, "to restore a population growth rate compatible with sustainable resource development".[2] In plain terms, this means reducing the birth rate, the major cause of poverty in sub-Saharan Africa according to the analyses released by the World Bank.[3] Since the birth rate has remained high in this region of the world over the last 30 years, the Bank is suggesting an underlying hypothesis to halt environmental degradation, especially in a country like Madagascar: destruction of natural resources can be reduced through political and institutional changes that would give users the right to manage their own resources and the responsibility to do so without compromising their survival. The parallel hypothesis is that only this approach makes it possible to preserve biodiversity and natural resources in the context of rural poverty, political instability, and uncertain economic growth, as in the case of Madagascar. This "development hypothesis" is based on initial presuppositions, of which the two most important are:

1. The various types of use of natural resources are strongly influenced by the type of user; and
2. The introduction of the necessary conditions will lead to better management of natural resources and less degradation of those resources.

This is the context in which mining industry development is taking place in Madagascar, i.e., in a relationship linking the economy, the environment, and anti-poverty measures, with the rural population as the vector. The "development model" is therefore based on the equation whereby higher exports help to reduce poverty while also preserving biodiversity. Although much of the Madagascar economy remains agricultural, and the studies of environmental benefits relate mainly to that sector, the industry to which mining development belongs accounted for 13.3% of economic production in 1996.[4] Extractive industries contribute 3% to GDP and 1% to Madagascar's exports.[5] The mining industry is therefore relatively marginal in

1. See in particular Bruno Sarrasin, "Les coûts sociaux de l'ajustement structurel en Afrique subsaharienne: évolution des critiques externes et des réponses de la Banque mondiale", *Canadian Journal of African Studies*, vol. 31, no. 3, Spring/Fall 1997, pp. 517–53.
2. World Bank, USAID, Coopération suisse, UNESCO, UNDP, and WWF, *op. cit.*, p. R–2.
3. See in particular World Bank, *World Development Report 2000/2001: Attacking Poverty*, New York: Oxford University Press for the World Bank, 2001.
4. World Bank, *Madagascar at a Glance*, Washington, D.C., 2000.
5. Unless otherwise indicated, data relating to the mining industry in Madagascar are from the Fonds d'appui du secteur privé à Madagascar, July 2000.

the economy of Madagascar as compared to other sub-Saharan African countries such as Ghana and Mali. However, its growth and environmental impact are such that it deserves attention.

The Mining Industry and Natural Resource Conservation in Madagascar

Madagascar has major mineral resources scattered over the entire country. Many deposits have been identified and the mining potential is as follows:

- industrial ores: graphite, chromite, quartz, mica, coal, iron, ilmenite, nickel, etc.;
- decorative stones: labradorite, rock crystal, rhodonite, marble, cordierite, celestite, vitreous beryl, quartz, opaque tourmaline, corundum, ammonite, aragonite, silicified wood, etc.;
- precious stones: ruby, sapphire, emerald, aquamarine and other beryls, etc.; and
- gold.

With the exception of the large industrial mines integrated into the national economy, mining operations are mainly carried out by a large number of small operators in the informal economy. Revenues generated by mining are earned 95% by industrial mines operated by large companies, and only 5% by precious stones, since most products are disposed of through traffickers. Some 1,500 jobs are directly dependent on industrial mining operations, compared with 50,000 to 100,000 related to small, informal operations.[1]

One issue for the industry – and for a new regulatory framework – therefore relates to the willingness to integrate small-scale production into industrial-scale operations. This factor fits directly into the logic of the "development model" we identified earlier: the potential economic gains are major. For example, the two large mining projects funded by foreign capital (RTZ/QIT: titaniferous sands, and Phelps-Dodge: nickel and cobalt) will generate export revenues estimated at US$400 million annually after the necessary investments (approximately US$900 million) have been made over the next 15 years. These two projects should start production around 2005 and raise ore export revenues from US$25 million in 1997 to US$500 or US$600 million by 2010 (Table 3). Realisation of the weak scenarios assumes that no major new deposits will be discovered and that one of the two major investment projects (RTZ/QIT or Phelps-Dodge) will be abandoned. However, these projections are based on integration of small-scale mining operations, establishment of a medium-scale gold mining project, and the opening, by 2005, of at least two small mines for precious stone extraction. In addition to the two major mining projects already mentioned, realisation of the strong scenarios is based on the opening of two gold mines and two medium-sized precious stone extraction

1. See World Bank, *Project Appraisal Document for a Mining Sector Reform Project*, Report No.17788-MAG, Washington, D.C.: World Bank, 2 June 1998.

sites by 2010. Obviously, this potential is based on establishment of the "right policy environment to encourage investment and vigorous external markets for Madagascar's mineral products",[1] in other words, a more liberal mining code compatible with the World Bank "development model".

Table 3: Mineral Production and Export Forecasts, Madagascar, 2000–2010 (US$ Million)

SCENARIOS		GROSS PRODUCTION	GROSS EXPORTS	AVERAGE ANNUAL INVESTMENT
Current		35	20	10
2000	Weak	40	25	–
	Strong	450	400	2000–2010: 85
2010	Weak	50	30	–
	Strong	700	600	2000–2010: 200

Source: Adapted from World Bank, *Project Appraisal Document for a Mining Sector Reform Project*, Report No.17788-MAG, Washington, D.C., 2 June 1998, Annex 4, p. 29.

Hypotheses for realisation of strong scenarios:

1. *QIT:* total investment of US$500 million (2002–2005), including cost of opening the mine and related infrastructures; annual exports: US$80 million (2005–2015) and US$150 million thereafter.
2. *Phelps-Dodge:* total investment of US$500 million (2001–2004); annual exports: US$350 million.
3. *Gold:* reported production is currently practically nil. In order to realise the strong scenarios, average annual investments estimated at US$40 million would be necessary from 2000 to 2010, for annual exports estimated at US$10 million in 2005 and US$25 million in 2010.
4. *Precious stones:* average annual investments of US$40 million from 2000 to 2010, for annual exports estimated at US$25 million in 2005 and US$50 million in 2010.

We have mentioned briefly the major elements of the liberalisation program on which the government of Madagascar has been basing itself since the late 1980s, i.e., structural adjustment, the environmental action plan, and the social improvement program. In this subsection, it is not possible to provide a detailed analysis of each of these policies. However, it is important to point out that the environmental action plan – implemented from 1993 onwards following the adoption in 1990 of the Environmental Charter – although presented as a catalyst for natural resource conservation, is part of the process to liberalise the economy and redefine the role of the state, as indicated by the following extracts:

1. *Ibid.*, p. 30.

> This policy [environmental protection] requires practical implementation: the Charter defines this implementation by setting out the Environmental Action Plan (EAP). It positions the EAP in relation to the major problems of the State: decentralization, disengagement of the State, liberalization.[1]
>
> Since the environment is everybody's business, the State must give way to private operators, as its role is to define policy, develop the necessary incentives, and monitor and assess activities in the field ... *Eventually, this process must result in the accountability of the largest possible number of players in the area of environmental protection* (my emphasis).[2]

Indeed, the task force behind the definition of the EAP, the Cellule d'appuis au plan d'action environnemental (CAPAE), consisted mainly of private sector players.[3] Under the guidance of Plan management and through working committees, development of the EAP thus resulted in an amendment of the property law that gave greater security to farmers, but also to private companies. Implementation of new legislation designed to improve environmental assessments is also an outcome of the EAP. This is not presented as an end in itself but as a process for consideration and action to establish objectives and implementation strategies. The outcome of this initiative was the development of a new institutional framework as part of the World Bank "development model" that can be summarised in the following four points:[4] 1) confirmation of the responsibilities and reinforcement of the institutional capacity of the sectoral agencies; 2) full and comprehensive contribution by the private sector and national NGOs to environmental programs; 3) decentralisation of management in a more intersectoral framework; and 4) the most limited possible institutional component.

In fact, the EAP established three new agencies in the early 1990s: the national environmental office (ONE, public), the national association for management of protected areas (ANGAP, private), and the national association for environmental initiatives (ANAE, private). The first is the equivalent in Madagascar of a ministry of the environment, although the latter was in fact established in 1994, resulting in jurisdictional issues with ONE. The second agency created under the EAP coordinates management of Madagascar's national parks and reserves in partnership with players and associations of communities adjacent to these protected areas. The third agency is responsible for funding, development, and establishment of micro-projects (such as agro-forestry or reforestation) in local communities. These institutions, especially ONE, supported preparation of the government order decreeing

1. Translation. Ministère de l'Économie et du Plan, *Charte de l'Environnement,* Antananarivo: Democratic Republic of Madagascar, December 1990, p. 7.
2. *Ibid.*, p. 25.
3. See in particular Bruno Sarrasin, *Élaboration et mise en œuvre du Plan d'action environnemental à Madagascar (1987–2001): construction et problèmes d'une politique publique*, doctoral dissertation in political science, Université de Paris 1, 2002.
4. See François Falloux and Lee Talbot, *Crise et opportunité. Environnement et développement en Afrique*, Paris: Maisonneuve et Larose et ACCT, 1992.

that investments must be compatible with the environment (MECIE, order No. 95–377 of 23 May 1995), introducing standards required for all investments and specifically the obligation to carry out an environmental impact assessment. This was the context – marked by a "development model" linking economic growth, environmental conservation, and anti-poverty measures – in which the government of Madagascar adopted its new mining policy on 30 July 1999 (law No. 99–022).

Mineral Policy in Madagascar

The primary goal of the new Madagascar mining code is to improve the industry's results – significant increases in investments and growth[1] – by promoting the operations of the large mines, without ignoring small mines, including gold washing, identified as a source of additional income for many Malagasy peasants. In particular, the purpose of the 1999 mining code "is to help the Government of Madagascar address key needs (policy, institutional, environmental) in the mining sector, through a set of prerequisite steps that will lay the ground for future private investment and whose implementation will provide a training ground for Madagascar in exploiting, over the long term and in a developmentally sound manner, the significant potential of its natural resources".[2] The sub-objectives are defined as follows:[3]

1. Increase the mining sector's contribution to the national economy through incentives to encourage investment in the industry;
2. Contribute to exports and national foreign currency revenues;
3. Promote development of the regional infrastructure in order to facilitate access to mining areas and movement of products;
4. Open up the sector to national and international private investment. The government of Madagascar is clear in this regard: the state will not participate directly in the capital of mining companies;
5. Accelerate the process of state disengagement from commercial exploration, production, and marketing operations: the state will confine itself to exploration operations for public purposes and will avoid any situation that may bring its neutrality into question;
6. Promote private investment in mineral exploration and mining through appropriate techniques, creating conditions conducive to capital inflows;
7. Liberalise marketing of mineral products: marketing of the substances in question must not be subject to any restriction or monopoly benefiting the state.

1. Realisation of strong scenarios presented in Table 3.
2. World Bank, 1998, *op. cit.*, p. 2.
3. See Fonds d'appui du secteur privé à Madagascar, July 2000.

The primary goal of the 1999 mining policy is to increase the industry's contribution to economic growth, while also liberalising the industry and withdrawing the state from production operations. The structural adjustment programs had already helped to eliminate direct state intervention by restricting the activities of the Office of National Mines and Strategic Industries (OMNIS), and had introduced competition through enforcement of the former mining codes. Madagascar's mining industry was regulated, in turn, by the law of 31 July 1896, government orders No. 60–090 of 5 September 1960 and No. 62–103 of 1 October 1962, and laws No. 90–017 of 20 July 1990, followed by No. 95–016 of 9 August 1995. The "fundamental problems" associated with the conditions prevailing before adoption of the 1999 code were, in particular:[1]

- a lack of basic geological data concerning Madagascar;
- a lack of human and material resources to support the industry;
- a lack of highway, port, energy, and rail infrastructures;
- low contribution by the industry to the national GNP (never more than 3%);
- a lack of reliable information on mineral production;
- levies collected directly on production by local communities, in accordance with the provisions of law No. 94–007 of 26 April 1994 regulating these communities: together with mineral royalties, these levies amounted to double taxation;
- a lack of provisions for enforcement of the MECIE order, specifying standards and procedures to be adopted in the industry.

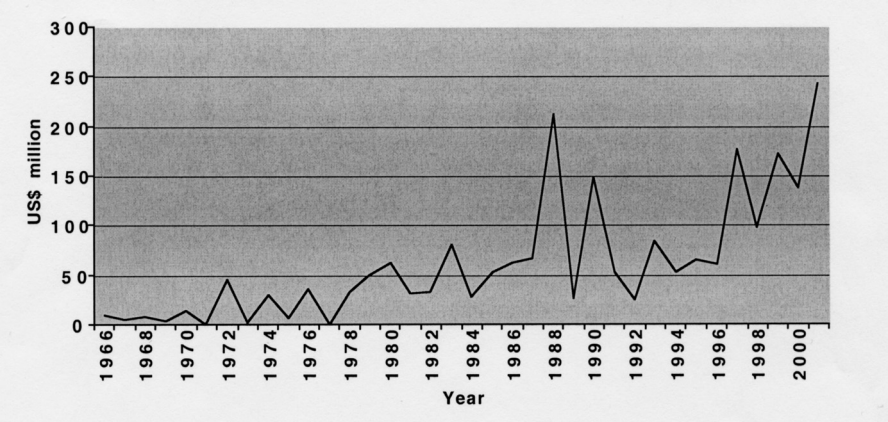
These elements provided a diagnosis that led to the definition in Madagascar of a new mining code whose basic approach was that Madagascar is not a country with a mining tradition and that information on the industry, where it exists, is incomplete and unreliable. Nonetheless, it was on this weak foundation that the government of Madagascar went ahead in 1998 and developed the principles of the new mineral policy that subsequently took the form of an investment code in 1999.

In order to help legitimise the process of mining industry liberalisation, the World Bank was instrumental in linking the new code to such social development goals as poverty reduction. For example, in its 1996–99 economic policy framework paper adopted in 1996, "the government of Madagascar expressed its definite preference for a market economy system characterised by establishment of a social and economic environment conducive to private sector development, a quest for foreign investment, withdrawal of the State from productive industry and effective

1. See Ministère de l'Énergie et des mines, *Déclaration de politique minière*, Republic of Madagascar, Antananarivo, 28 May 1998, pp. 3–4.

anti-poverty measures".[1] As another passage from the same document pertinently underlines, "this is a fundamental option that will impact on economic development in general and the mining industry in particular". We might add that this government of Madagascar policy orientation has impacted not only the economy but also the environment and the social sector.

Figure 1: Evolution of World Bank and International Development Agency Funding of Madagascar, 1966 to 2001



Source: World Bank, 2002, [web] http://www.worldbank.org.

This approach stems directly from the structural adjustments prevailing in Madagascar since 1983 and the conceptual approach supported by the IMF and the World Bank through their "development models". In the case of the former, since 18 September 1996, the government of Madagascar has complied with Article VIII of the IMF Statutes, resulting in freedom to invest in Madagascar without any con-ditions relating to certification or authorisation of investments. In addition, and as we have already pointed out, the World Bank developed a comprehensive theoretical framework linking liberalisation of mining and anti-poverty measures. For example, in the 1997 Country Assistance Strategy for Madagascar, the Bank identified a set of reforms it considered essential to combat poverty and support economic growth. Among these, it was emphasized that mining code reform "would improve the conditions to develop private sector-led mining activities especially in regions where mining is one of the few feasible options for economic activity, and help increase income-generating opportunities in the medium term, either at the mine sites or as a spin-off effect within the region".[2] This type of argument is part of the anti-poverty strategy developed by the World Bank on the basis of the concept of opportunity and the trickle-down effect. The effectiveness of this strategy is far from proven,

1. Translation. *Ibid*., p. 4.
2. World Bank, 1998, *op. cit*.

and a lively debate has flourished and continues to date on this topic.[1] In this context, and despite the insistence of World Bank analysts that a social development aspect be added to mining industry reform, it would appear that the primary goal of this initiative relates to the redefinition of the role of the state. The premises of this approach can be summarised as follows:

> Given weak domestic savings and access to mining technology, only private foreign investment could finance *large-scale mining* in Madagascar. However, foreign investments have yet to materialize because of continued state intervention in the sector, cumbersome regulations, and lack of incentives for developing mining operations on an industrial scale. ... The Government's economic reform program calls *inter alia* for liberalisation of the mining sector through withdrawal of the State as an operator of mining assets, and the implementation of a strategy to encourage a private-sector led mining industry.[2]

Although the World Bank presents this strategy as the outcome of a desire on the part of the government, over the last 30 years – and especially since the 1990s – the government has become increasingly dependent on the funding of this international institution, as shown by the evolution presented in Figure 1. In addition, the Bank itself points out that the mining industry reforms, which resulted in the 1999 code, were initially driven by the private sector development and capacity building project (PATESP), which provided guidance in relation to the new mining code for the following purposes:

> ... reduce the discretionary power of Government, increase transparency, and provide security to potential investors ... This policy is in conformity with the current economic reform program [structural adjustment] and sends the right signals to investors, clearly defining the respective roles of the State and of the private sector, including their rights and obligations."[3]
>
> More specifically, this means that the reform of the institutions involved in the mining industry (OMNIS, etc.) is part of an initiative for the purpose of "restricting the role of the State to that of a regulator.[4]

In the context of the structural adjustment reforms of the last 20 years, the government of Madagascar is in a difficult position with regard to rejection of investment opportunities. In 1997, for example, negotiations between the state mining agency OMNIS and Quit Madagascar Minerals (QMM), an affiliate of the multinational Rio Tinto Zinc (RTZ Corporation), culminated in the granting of mineral rights covering titanium and ilmenite at Tolagnaro on Madagascar's southeastern coast. Rio Tinto, through its affiliate Rio Tinto Fer et Titane inc. and its two production centres in Canada and South Africa, is the largest producer of high-grade titanium oxide concentrate. Rio Tinto affiliates currently produce about 40% of the global

1. See in particular Bonnie Campbell and Trevor Parfitt, "Virtual Adjustment: Whose Reality?", *Review of African Political Economy*, vol. 22, no. 63, March 1995, pp. 3–8; Bruno Sarrasin, *Ajustement structurel et lutte contre la pauvreté en Afrique. La Banque mondiale face à la critique*, Paris: L'Harmattan, 1999.

2. World Bank, 1998, *op. cit.*, pp. 5–6.

3. *Ibid.*, pp. 6–7.

4. *Ibid.*

market for titanium oxide raw materials. Other producers exploit deposits mainly in Australia, America, and South Africa. The project, estimated to be worth approximately $500 million, should produce some 700,000 tons of ilmenite per year, or the equivalent of 10% of global titanium oxide production. The project will create 600 jobs and, according to OMNIS, could raise the mining industry's contribution to GDP from 3% to 10% by early in the next decade, generating an estimated $10 million in royalties. On the other hand, this project would involve deforestation of an area 25 kilometres long by 7 kilometres wide in an environmentally and socially sensitive area.[1] The project involves mining and extraction of mineral sands at the Mandena, Petriky, and Sainte-Luce sites in the Anosy region of southeastern Madagascar, in accordance with the founding agreement of 26 January 1998 between the government of Madagascar and QMM. The mining of these deposits that has been authorised over a period of about 60 years covers ilmenite and small quantities of zircon. These developments will help to realise the World Bank strong scenario (Table 3), projecting a 20-fold increase in mineral production in Madagascar and a 30-fold rise in exports by 2010. Following environmental impact assessments and despite its major impacts on biodiversity and the regional population, the project received its environmental permit in 2002 for the Mandena sector, its first phase.

Conclusion

When compared with other sub-Saharan African countries whose mining industries have traditionally played an important economic role (Ghana and Guinea), industrial mining in Madagascar is still more a plan than a reality. However, it is now closer to realisation than ever before. The project of Quit Madagascar Minerals S.A. (QMM) is an interesting example of foreign investment with major and complex impacts on the natural and social environment, including construction of port and highway infrastructures, displacement of populations, deforestation, and environmental rehabilitation on completion of the project. All these factors, despite having been the subject of a social and environmental assessment, will have a major impact on the life of the people of the Tolagnaro region (immigration, changes in agricultural practices, decline in tourism, etc.).

This analysis shows that Madagascar is an excellent case study. The country was converted to export-oriented capitalism less than 20 years ago and its mineral resources have been little exploited compared to those of other countries of sub-Saharan Africa: despite the social and environmental impacts observed in a number of these countries, the World Bank is planning to bring Madagascar into the circuit of African mining countries:

1. See QMM S.A., *Projet ilménite – Étude d'impact social et environnemental*, Antananarivo, May 2001.

> Experience in other countries indicates that improving the enabling environment increases the ability of the country to attract and retain appropriate private investment. For instance, Ghana in the late 1980s undertook significant reforms, supported by the Bank and other donors, to improve the enabling environment for private sector investment mining. The result has been a fourfold increase in gold production, a mining investment climate that is consistently ranked among the best in the world by investors, and the privatization of state owned enterprise.[1]

The mining code adopted by Madagascar in 1999 is therefore clearly part of the initiative for a model whose primary goal is to accelerate growth of the sector, based on withdrawal of the state. There are a number of reasons why we should be concerned about this situation. First, because of a lack of information regarding the industry in Madagascar, it is hard to get an accurate picture of the current situation – as regards both its mineral potential and the impacts of mining – so that any attempt at forecasting has very limited value. Second, on paper Madagascar has a large number of laws, programs, and regulations, some of which we have referred to in our analysis. However, there is a real problem associated with the lack of human and financial resources necessary to ensure monitoring and implementation of this legislation, especially with regard to environmental protection. After more than 20 years of structural adjustment, the government's institutional capacity has been impaired, creating the paradoxical situation in which the government is hardly able to implement even its liberal legislation. The World Bank refers to this situation in its own reports: "After several years of budgetary reductions, Government institutions lack the human and financial resources to enforce the law, especially in the context of decentralization".[2] Under these conditions, although Madagascar has strict environmental protection legislation, its implementation is far from certain, especially in the context of accelerated liberalisation such as that entrenched in the mining code adopted in 1999. Beyond "models" and intentions, in this situation the private players must in fact assume responsibility for their own actions. Only over time will it be possible to assess how much genuine enforcement capacity the government of Madagascar has retained over the flow of anticipated royalties and protection of the environment following the introduction of this threefold set of regulatory frameworks, which illustrate what we have called the third generation of codes.

1. World Bank, 1998, *op. cit.*, p. 13.
2. *Ibid.*, p. 6.

Tanzania: Liberalisation of Investment and the Mining Sector Analysis of the Content and Certain Implications of the Tanzania 1998 Mining Act

Paula Butler

As with most highly indebted, low-income African countries, liberalisation of the Tanzanian economy occurred initially as a condition of debt relief imposed by the IMF and World Bank. Orthodox structural adjustment programs (SAPs) on which debt relief was conditional entailed privatisation of state-owned enterprises (in Tanzania's case, 400 "parastatals" were slated for privatisation),[1] an emphasis on export-led growth, removal of subsidies, lowering or abolition of tariffs, dismantling of state marketing boards, liberalisation of foreign exchange regimes, reductions in public expenditure, etc.

Since 1986, when Tanzania negotiated its first structural adjustment loan, it has attempted fairly faithfully to adjust and liberalise its economy according to IMF/WB prescriptions. With an external debt in 2000 of US$8 billion,[2] Tanzania is highly dependent on multilateral aid and has little bargaining power with regard to debt relief conditions (although Tanzania has now qualified for relief under the Highly Indebted Poor Countries Initiative). Policy statements of the Tanzanian government emphasize its commitment to creating a disciplined, stable environment conducive to attracting foreign investment as an engine for private sector-led economic growth. Mining is identified as a lead sector for foreign investment and is slated to grow to 10% of GDP.[3] The liberalisation that occurred through Tanzania's SAP – particularly the privatisation of public-sector industries – very effectively prepared the ground for the further liberalising thrusts to which Tanzania has been subject through its membership in the WTO. As will be seen below, it would be difficult to over-emphasize the role that the World Bank has played in Tanzania in catalysing the privatisation and reform of the country's mineral sector.

In its 1992 technical paper, *Strategy for African Mining* as noted above in section II, the World Bank described what it saw as the appropriate "regulatory framework" (mining codes, mineral rights and licences, model agreements); economic and fiscal policy; and institutional reform (i.e., ministry of mines, geological survey, environmental office, etc.) required for the reform of the mining sector in African countries.

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1. World Trade Organization (WTO), *Trade Policy Review of Tanzania*, Geneva: WTO, 2000, p. 43, par. 76.
2. *Ibid.*, p. 2, par. 5.
3. Ministry of Energy and Minerals, *Mineral Policy of Tanzania,* Dar es Salaam: Government of Tanzania, 1997, p. vii.

According to the World Bank, African governments should focus primarily on gaining long-term (10 to 20 years) tax revenues from private mining companies, as the major source of gain to the country. Foreign and domestic companies should receive the same treatment. Governments were specifically advised against using mining as a potential source of employment creation, and "should not be obliged to use or be offered incentives to use employment-increasing techniques".[1] Rather, tax revenues from mining should be invested in employment-creation initiatives in other sectors of the economy.

In 2001, two new documents prepared for the World Bank Group – Review of Legal and Fiscal Frameworks for Exploration and Mining and Mining Sector Reform and Investment: Results of a Global Survey[2] – set out in even more precise detail country-specific legal and fiscal information for the use of foreign investors. Ostensibly, these documents were designed to catalyse the wider adoption among numerous resource-rich "developing" countries of a model framework – essentially a template for mining sector policy – already in place in several Latin American countries, most notably Chile, Peru, and Mexico.

To complement its generic policy prescriptions, the World Bank financed, as part of its structural adjustment lending, a number of country-level mineral sector reform projects, designed essentially to implement the reforms recommended in the 1992 technical paper.

In this regard, in 1993–94, the World Bank initiated a five-year, US$14.5 million Mineral Sector Technical Assistance Project for Tanzania, designed to "introduce a legal, regulatory and fiscal framework, which would provide an environment conducive to private investment in mining".[3] Most notably, the project included assistance in rewriting relevant national legislation – e.g., the new *Investment Act of 1997* and a new *Mining Act* – to "harmonise" Tanzania's legislation with the requirements of the new global political economy.

It was in this context that on 1 July 1998, the government of Tanzania, under President Benjamin Mkapa, passed into law the new *Mining Act*. The new legislation replaced the 1979 *Mining Act*, produced during the presidency of Julius Nyerere. The new mining law offers appealing terms to prospective investors: 3% royalty rates on minerals (5% on diamonds); 30% income tax and no additional profits tax; indefinite carry forward of losses; no import duty or Value Added Tax (VAT) on mining equipment; withholding tax on dividends is 10% and on expatriate salaries is 3%;

1. World Bank, *Strategy for African Mining*, Technical Paper No.181, Industry and Energy Division, Geneva: World Bank, 1992, p. 28.
2. Koh Naito, Felix Remy, and John P. Williams, *Review of Legal and Fiscal Frameworks for Exploration and Mining*, London: Mining Journal Books, 2001; and Koh Naito and Felix Remy, *Mining Sector Reform and Investment and Investment: Results of a Global Survey*, London: Mining Journal Books, 2001.
3. World Bank, *Mineral Sector Development Technical Assistance Project: Tanzania*. Geneva: World Bank, 1993.

mining rights are transferable and mortgageable; titling is on a first-come, first-served basis.

How have the changes introduced with the new *Mining Act* been explained? What are the significant differences between the 1979 and the 1998 mining codes and what are certain likely implications of these changes?

The World Bank's diagnosis of the problems with the mineral sectors in many African nations during the 1960s to the1980s is well documented. A recent World Bank website communiqué states it succinctly: there was a:

> … lack of an attractive enabling environment for private sector mining investment, a paucity of accurate and up-to-date geological information and the systems to manage the information, inadequate or non-existent environmental regulations and standards, and insufficient human skills and capacity to effectively administer the sector.[1]

Extrapolating from this general critique, I would assert that the Bank found Tanzania's 1979 *Mining Act* problematic on the following grounds:

- It did not offer private investors a risk-free investment climate. "Security of tenure" of mineral rights was not adequately protected within a legal framework.
- There was too much discretionary latitude invested in the minister of mines; this latitude created a climate of uncertainty, a perceived arbitrariness, and the potential for bureaucratic delays.
- The Act contained national welfare-related "performance requirements" of private mining companies, i.e., explicit commitments that became part of the prospecting or mining licence concerning employment of Tanzanians and local sourcing of goods and services.
- The United Republic of Tanzania had the right to acquire an interest in private mining ventures, and to make this right a condition of granting prospecting licences.
- There was no dispute resolution mechanism independent of the minister of mines.
- There was inadequate service provision to companies on the part of the ministry in the form of provision of geophysical data, etc.
- There were no clearly set-out environmental regulations and standards.

To what extent was the World Bank's perspective shared by the government of Tanzania? The *Mineral Policy of Tanzania*, a policy paper released in October 1997 by the Ministry of Energy and Minerals, and a precursor to the new *Mining Act*, provides some indices. It treats the 1979 *Mining Act*, produced during an era of "state-

1. World Bank Group and International Finance Corporation (IFC), "Mining Regional Strategies: Africa", 2003, [web] http://www.worldbank.org/ogmc/mining_africa.htm.

directed" development strategies, as simply outdated: not adequate to respond to the changed political and macroeconomic realities of a twenty-first century global investment climate.

In its diagnosis of the problems of the mining sector, the mineral policy statement echoes World Bank views in naming the "lack or absence of appropriate and consistent macroeconomic policies to provide an enabling environment for mineral development by the private sector investment"; "lack or absence of appropriate and consistent mineral sector policies oriented towards private sector participation", "inadequacy of modern management and technical skills", etc. It also names the competition among developing countries for private foreign investment and the imperative of offering "competitive" incentive packages (in particular, tax relief) to attract investment. The policy statement gives some priority to "rationalizing" and "modernizing" the small-scale or artisanal mining sector and diverges somewhat from standard World Bank prescriptions in paying at least lip service to the objective of harnessing the mining sector generally to wider social and economic development objectives (such as value-added – "mineral beneficiation" – processes for economic diversification, employment, and increased revenues). However, as will be evident from my examination of the 1998 *Mining Act*, the *Act* responds primarily to concerns for an enhanced "enabling environment" for private investment, and very little to the broader development objectives that are mentioned – perhaps only rhetorically — in the mineral policy statement.

How significant was the external influence on Tanzania to reform its mining and investment laws? As noted, the 1998 *Mining Act* – and the 1997 *Investment Act* – were introduced as part of a five-year World Bank-financed sectoral reform project (1993/94–1998/99). This was also the same period in which Tanzania was attempting to qualify for the World Bank's HIPC (Highly Indebted Poor Countries) debt relief scheme. HIPC conditionality included macroeconomic reforms featuring further shifts towards a market-oriented, export-oriented, liberalised economy. Such motivations were undoubtedly significant aspects of the general context in which the government of Tanzania moved to reform its mining code.

It is also likely that certain foreign diplomats used avenues at their disposal to encourage Tanzania to adopt investment and mining laws that would respond more closely to their national corporate interests.[1] If this was indeed the case, as it appears to have been, it would seem difficult to dispute that the orientation of the Mineral Policy (1997) and the *Mining Act* (1998) were not influenced by input and comments

1. The Canadian High Commissioner to Tanzania during the mid-1990s, as well as senior officials of Sutton, the Canadian company that held the mineral rights to the enormous gold property at Bulyanhulu, gave high priority to attending a conference in Arusha in November 1996 organised by the Ministry of Energy and Minerals on "The Legal, Regulatory and Fiscal Framework of the Tanzanian Mineral Sector". A proposed revision of the *Mining Act* was presented for discussion at this workshop.

– possibly associated with forms of leverage such as aid packages and support for debt relief – from diplomats and officials of Western countries with vested interests in the mining policies of mineral-rich African nations.

A close, comparative analysis of the 1979 and 1998 *Mining Act*s of Tanzania provides the necessary background for understanding certain implications of Tanzania's mining legislation reform.

Comparison of 1979 and 1998 Mining Acts

1. Transferability and Mortgageability of Mining Right or Licence

This issue is important as a dimension of an "enabling environment" that will attract foreign investment because it moves towards treating a mining licence as legal property, thus reducing risk to investors. The 1979 law placed a number of restrictions on the transfer of mineral rights:

– Transfers of mineral rights had to be approved by the minister of mines; furthermore, "the Minister may give, or refuse to give, his approval, or give his approval subject to such conditions as he deems necessary in the circumstances to impose". Section 60 (3). The minister may require various types of information from the applicant for a transfer and the applicant shall comply with the requirement. Section 61.
– Transfers of reconnaissance licences are not allowed; Section 60 (4).
– The minister of mines shall give approval to the transfer of a prospecting licence or mining licence when the transferee is not disqualified under any provision of the Act and when the transferee is a person "controlling, controlled by, or under common control with, the transferor". Section 60 (5).
– There is no indication of mineral rights being mortgageable.

By comparison, the 1998 Act (Section 9) has the following provisions:

– The *holder* of the mineral right is *entitled* to assign the mineral right to another person, Section 9 (1) … subject to the *consent* of the licensing authority – which is not to be "unreasonably withheld or delayed";
– The consent of the licensing authority is NOT required if the transfer is to an affiliate (affiliate defined as any company which directly or indirectly controls or is controlled by the applicant or which is controlled directly or indirectly by a company which directly or indirectly controls the applicant);
– The consent of the licensing authority is NOT required if the transfer is to a bank or other financial institution by way of mortgage or charge given as security for any loan or guarantee in respect of mining operations.
– No mineral right may be assigned to a person who would be disqualified under the Act.

With the provisions of the 1998 Act, there is a significant shift in the distribution of leverage between the government and the private licence holder in favour of the licence holder. Under the 1979 law, the minister of mines had authority and entitlements, while the mining company had duties and obligations. Authority resided in the minister of mines to grant or withhold approval of transfers and to set conditions for an approved transfer. He/she was not required to provide reasons for a denial of an application for transfer, and could require from an applicant any information deemed necessary to make a decision about the application. The *Act* does, however, state that the minister "shall" (is expected to) approve transfers when the transfer requested is to an affiliate.

By comparison, in the 1998 *Act*, the private licence holder is much more in the driver's seat vis-à-vis transfer decisions. The licence holder now has entitlements, while the minister has obligations (i.e., not to unreasonably withhold or delay consent to a transfer). The language shifts from "approval" of an application for transfer, to "consent" to a decision on the part of the private company to transfer a mineral right. There are legal implications to this shift in terminology. Moreover, whereas under the 1979 *Act*, ministerial approval was still necessary for transfers to affiliates, under the 1998 *Act*, such transfers become the right or entitlement of the licence holder and are no longer subject to ministerial consent or approval. Although the effect in terms of the instances of transfers among affiliates may be small, the shift in bargaining power between the ministry and private companies – for instance, as it applies to other aspects of the licensing process, such as the terms of the development agreement – may be considerable.

The most significant change from the 1979 *Act* to the 1998 *Act* is the entitlement of private licence holders to use their mineral rights as collateral and to transfer mineral rights to banks or financial institutions without requiring ministerial approval or consent. Foreign financial institutions are thus enabled to acquire mineral rights in Tanzania. This is clearly a favourable legislative change for foreign investment houses as it offers them a new level of protection in the Tanzanian mining sector not previously enjoyed. On the other hand, this legislative change can be regarded as a significant erosion of Tanzanian sovereignty over its mineral sector.

2. Discretionary Latitude of Minister of Mines

Calls from the World Bank and the corporate mining industry for legal and regulatory frameworks characterised by "fairness" and "transparency" can be interpreted as efforts to curtail the discretionary latitude of key government officials vis-à-vis the granting of, and terms of, mineral rights. Corruption, cronyism, and bureaucratic delays are regularly cited as the rationale for greater checks and balances on ministerial discretion. However, a nationalistic or developmental "bias" on the part

of government officials with discretionary power may at times be the more salient concern of the foreign investment community.

Under the 1979 *Act*, the minister of mines possessed considerable discretionary power. He/she was entitled to make judgments "in the public interest", without "the public interest" being further defined in the *Act*. He/she could approve or suspend licences with or without conditions, could request or require information from companies, and had (along with the commissioner of mines and other relevant officials) a right of entry to mining sites and the right to inspect company documents.

In the 1998 *Act*, ministerial *discretion can be curtailed* and/or *limited* under the terms of the Development Agreement, Section 10 (2) (b): "The agreement may contain provisions binding on the United Republic … relating to the circumstances or the manner in which the Minister or the Commissioner will exercise any discretion conferred on them by this Act or the Regulations". In addition, Par 10 (3) states: "Where this Act or the Regulations confer on the Minister or the Commissioner a discretion, the Minister or, as the case may be, the Commissioner *shall exercise that discretion subject to and in accordance with any relevant stipulation contained in a development agreement* made under this section" (my emphasis).

The 1998 *Act* creates a new administrative body, the mining advisory committee, to which certain decisions must be referred. The minister of mines becomes publicly accountable for any decisions he/she takes that are contrary to advice he/she has received from the mining advisory committee (Section 20 (4)).

In the 1979 *Act*, the minister was the only source of appeal in disputes, and made final decisions in the case of any disputes. In the 1998 *Act*, in the Development Agreement, Section 10, there is a provision for "settlement of any such dispute by international arbitration" (i.e., the International Convention for the Settlement of Investment Disputes, ICSID).

Under the terms of the 1998 *Act*, the minister cannot make a decision concerning the inclusion of, or the terms of, any Development Agreement. Rather, any such decision must be referred to the mining advisory committee.

The 1998 *Mining Act* represents a shift to a "rules-based" system of management of the mining sector in which the discretionary latitude of the minister and national interest-based interpretation of the *Mining Act* is much reduced. Most decisions become mechanical. Most significantly for the private mining industry, Section 12 (1) of the 1998 *Act* establishes the principle/practice of "first come, first served" with regard to the granting of mineral rights.

3. Provision of State Services to Private Mining Industry

One of the mantras of the World Bank concerning reform of the African mining sector is that the state must move from being an "owner and operator" of mining ventures to being a "regulator, promoter and service-provider" to a private-led min-

ing sector. To this end, the 1998 *Act* contains a lengthy section detailing how the Ministry of Mines is to be organised and administered, and is much more explicit concerning the tasks and duties of various officials.

The 1979 *Act* contained little by way of obligations on the part of the Ministry of Mines to provide services to the mining industry. To the contrary, it was private industry that was to provide geological data and information to the state. With the 1998 *Act*, this arrangement is effectively reversed. Section 21 states that "no information furnished or information in a report submitted by a holder of a Mineral Right shall … be disclosed, except with the consent of the holder of the Mineral Right". Moreover, the ministry is now explicitly legislated to "undertake the geological mapping of Tanzania", to "provide data concerning the geology and mineral resources of Tanzania", to "assist members of the public seeking information concerning geological matters", and to "maintain laboratory, library and record facilities as may be necessary for the discharge of these functions" (Section 18). These services can be regarded as a public subsidy to the private mining industry in a context, as noted, in which the Tanzanian state has foregone considerable discretionary power over the development of its mining sector.

4. Development Agreement

The Development Agreement, Section 10 in the 1998 *Act*, is a completely new feature. The concept of a Development Agreement is elsewhere called "a model investment contract for mining ventures, anchored in the mining code and comprising a new fiscal regime as well as other provisions".[1] It provides a legislative loophole for companies to negotiate fixed tax rates throughout the life of the project – even in the event of changes in the tax laws (e.g., with a changed government); opportunities to negotiate a variety of other incentives and special guarantees; it may entail a waiver of company liability for environmental problems; and, as noted above, it may override and/or limit the discretionary authority of ministry officials.

This is particularly evident in the section of the 1998 *Mining Act* that sets out the terms of the "special mining licence", which is the 25-year licence applicable to major capital-intensive (i.e., most often, foreign private) mining ventures. The Development Agreement may limit the minister's discretion in approving special mining licences for "non-entitled applicants" (i.e., persons or companies not already holding prospecting or retention licences); may prevent the minister from rejecting an application for renewal of a special mining licence or limit the grounds for refusal; and may limit the ability of the minister to reject an amendment submitted by a company regarding the terms of their special mining licence, including terms

1. World Bank, *Guinea – Mining Sector Investment Promotion Project*, Washington: World Bank, 1995.

such as the details of the environmental management plan and plans for training and employing Tanzanians.

In effect, while the 1998 mining code is more "rules-based" legislation, the Development Agreement allows some rules to be suspended or modified in favour of private corporate mining interests. Provisions established under the Development Agreements are "binding on the United Republic" (Section 10 (2)), suggesting that they may be subject to litigation.

5. Right of State to Acquire an Interest in Mining Ventures

Section 32 of the 1979 *Act* provided for the right of the United Republic of Tanzania to acquire, "on stipulated terms or on terms to be agreed, an interest in any mining venture which may be carried on in relation to land in, or which constitutes, the prospecting area." This stipulation may be included in the prospecting licence. In the 1998 Act, this right on the part of the state disappears.

At the same time, while the 1979 *Mining Act* expressly prohibited Ministry of Mines officials from holding shares in mining companies or mining licences, this prohibition is significantly dropped from the 1998 *Act*. This would seem to open the door to an increased potential for ministry officials to act with private, versus state or public interests, in mind. It also creates an additional avenue for influence or enticements directed at public officials by private mining companies.

6. Categories of Mineral Rights

Under the 1979 *Act*, there were three (or effectively four) categories of mineral rights: reconnaissance licence (12 months); prospecting licence (3 years); and mining licence (maximum 25 years). There was, in addition, a "prospecting right" (12 months, renewable) to work in areas designated for prospecting and mining for prescribed minerals "not requiring substantial expenditure and the use of specialist technology" (i.e., artisanal mining areas) and to stake claims in such areas.

In the 1998 *Act*, there are seven categories: prospecting licence (5 years, renewable); retention licence (5 years, renewable once); special mining licence (25 years, renewable); mining licence (10 years, renewable once); gemstone mining licence (10 years, renewable); primary prospecting licence (12 months, renewable); and primary mining licence (5 years, renewable). The two categories of primary licences are essentially designed for artisanal and small-scale mining, while the special mining licence (for minerals other than building materials) and the mining licence (for minerals other than gemstones) appear designed for large-scale, technologically complex, and capital-intensive mining operations.

It is noteworthy that primary (artisanal) mining licences can be converted, upon request, to a mining or special mining licence, usually by entering into a joint venture with a company that is able to meet the annual expenditure requirements. What

this suggests, however, is that tracts of land originally designated for artisanal (Tanzanian citizen) prospecting and mining may, with time, be gradually converted into areas that are exclusively the jurisdiction of private (foreign-owned) companies and investors.

7. National Developmental Benefits

In 1979, *general developmental benefits* (e.g., employment and spin-off economic effects) were treated as integral aspects of mining ventures and figure in the approval and licensing process. The 1979 *Act* required applicants for both prospecting and mining licences to indicate their plans for *employment and training of Tanzanians*. The 1979 *Act* further required applications for mining licences to indicate a plan for *goods and services to be procured in Tanzania,* as well as for "infrastructure requirements" (my emphasis). Environmental concerns were not given high priority.

With the 1998 *Mining Act*, there are a number of significant, although subtle, shifts in how national developmental, or sustainable development, objectives are conceptualised. As I will discuss in more detail below, the following changes occur: "sustainable development" becomes focused, to a large extent, on environmental protection and standards; employment creation and poverty alleviation are addressed primarily in relation to the small-scale mining sector, although this sector is not privileged in the *Act*, which, to the contrary, is primarily designed to attract foreign investment and presence; and the deliberate enhancement of backward and forward economic linkages through local procurement requirements disappears.

Environmental Regulations

The 1998 *Mining Act* has much more stringent regulations for compliance with international standards of best practice regarding protection and rehabilitation of the environment in mining areas. Applicants for mining licences, special mining licences, and gemstone mining licences are all required to submit an independent environmental impact assessment and an environmental management plan. In addition, while applicants for primary mining licences (i.e., small-scale mining licences) are not obliged to submit an environmental impact assessment, renewal of primary mining licences is partially determined by "strict" compliance with environmental and safety regulations.

For reasons similar to those set out in the case studies of Mali and Madagascar, in view of the lack of capacity of the Tanzanian state to monitor and enforce the enhanced environmental concerns contained in the 1998 *Mining Act*, one can only speculate about the reasons for their paradoxical inclusion in this context. Beyond genuine environmental concerns in their own right, an additional explanation might be traced back to the desire on the part of large Western mining multinationals to

appease an activist public highly concerned and vocal about environmental risks related to mining. Furthermore, the environmental discourse is increasingly used by Western mining companies to enhance their own status as responsible corporate citizens with superior environmental practices in comparison to the inadequate and irresponsible practices of small-scale peasant miners (e.g., mercury pollution resulting from artisanal gold processing). This critique of artisanal mining becomes, then, a further rationale for regulating and containing the activities of the small-scale sector and creating a paternalistic relationship between Western companies and local artisanal mining groups.

Employment

Tanzania's 1997 Mineral Policy identifies the creation of "gainful and secure employment in the mineral sector" and the provision of "alternative sources of income particularly for the rural population" as one of the national "challenges" addressed by the policy.[1] In the 1998 *Mining Act*, only Tanzanian citizens are eligible for primary (i.e., small-scale) mining licences. The ILO estimated in 1999 that there were between 450,000 and 600,000 artisanal miners employed in small-scale mining in Tanzania.[2]

Some of the attention given to the artisanal mining sector in both the 1997 Mineral Policy and the 1998 *Mining Act* concerns the quality of employment in this sector. In other words, improved training opportunities, credit facilities, extension services, and formal regulation will enhance the capacity of this sector to alleviate poverty and enhance social and economic development in rural areas. Such goals are strongly promoted by international agencies such as the UNDP, ILO, and World Bank, as well as, to a certain extent, by the corporate mining industry, although the motivation of the latter may at times also have to do with minimising potential conflicts between industrial and artisanal mining and enhancing the industry's own public profile as responsible corporate citizens committed to "sustainable development".

However, the provision of extension services to Tanzanian peasant producers in other economic sectors (in particular, agriculture) has been hampered over the past two decades by structural adjustment-related government revenue shortfalls and cutbacks. Indeed, one recent study of artisanal mining in the SADC region observed that, in Tanzania, "the government is often unable to control artisanal mining because it lacks adequate operational resources to enforce existing regulations".[3]

1. Ministry of Energy and Minerals, 1997, *op. cit.*, p. 8, par. 1.
2. International Labour Organization (ILO), *Social and Labour Issues in Small-Scale Mines*, Geneva: ILO, 1999, p. 5.
3. Bernd Dreschler, "Small-scale Mining and Sustainable Development within the SADC Region", *Mining, Minerals and Sustainable Development*, August 2001, p. 66, [PDF] http://www.iied.org/mmsd/mmsd_pdfs/asm_southern_africa.pdf.

Simply naming extension services to the artisanal mining sector in the *Mining Act* is not a guarantee that they will occur: how will they be financed?

The section on mining in the WTO *Trade Policy Review 2000* of Tanzania states bluntly: "There is no requirement for local participation or equity ownership in a foreign investment".[1] Of the licences that allow for foreign participation, only the applicant for a special mining licence (25-year renewable licence) is required to include plans for the training and employment of Tanzanian citizens. As with the 1979 *Act,* such plans then become terms of the licence. As has been indicated above, however, any Development Agreement negotiated by the company with the ministry may limit the capacity of the ministry to terminate a licence on grounds such as employment targets not being met. That is, the capacity of the Ministry of Energy and Minerals to hold companies accountable regarding Tanzanian employment targets is considerably weaker in the 1998 Mining Act than it was in the earlier *Act*.

The picture with regard to the effects of the 1998 *Mining Act* to date on overall employment in the mining industry in Tanzania is difficult to ascertain. The ILO, for instance, has employment figures for the informal (artisanal) sector, but not for the formal industrial mining sector in Tanzania. Given that modern industrial mining is a capital-intensive, versus labour-intensive, sector, if the long-term effect of the 1998 *Act* proves to be that much greater land areas in mineral-rich regions of the country are licensed to companies involved in industrial (as opposed to artisanal) mining, a significant reduction in the number of total people employed in the mining sector seems likely.

In addition, as I have indicated in my discussion above, many elements of the 1998 *Act* favour larger, "experienced" companies and foreign investors who demonstrably possess the capacity to efficiently and profitably exploit the country's mineral resources: the small-scale sector is not prioritised in relation to large, capital-intensive operators. This again indicates the likelihood of an erosion of total numbers of employment opportunities in the Tanzanian mining sector, as a capital-intensive industry encroaches on small-scale mining areas.

Maximising the Broader Economic Benefits of Mining

The 1997 Mineral Policy of Tanzania makes a number of references to the importance of linking the mining sector to broader economic development objectives. For instance, economic diversification is to be partially realised through value-added processing of minerals. Tanzania is to become "the gemstone center of Africa" with the establishment of "a well-developed gemstone cutting and jewellery industry". The *Mining Act*, however, provides little legislative support for any of these aspects of the mineral policy vision.

1. WTO, 2000, *op. cit.*, p. 18, par. 42.

Most significantly, there is no mention anywhere in the 1998 *Mining Act* of any requirement for plans for procurement of local goods and services. International trade and investment agreements increasingly treat such measures as illegal "performance requirements". In this regard, Tanzania's mining legislation has been reformed so as to make it compatible with the TRIMs Agreement (1994). The latter considers certain performance requirements, such as local sourcing and local content. violations of the GATT Art. III National Treatment provision. The WTO *Trade Policy Review of Tanzania* (2000) states: "The authorities indicate that Tanzania does not have any local content requirements".[1] Such a policy environment – that is, the international trade and investment policy environment – appears to trump Tanzania's national policy objectives related to economic "beneficiation" through enhancing the potential for upstream and downstream impacts of the mining sector. It appears that the Tanzanian government has, despite policy vision statements, been obliged to abandon certain key development objectives.

Conclusions

Tanzania's artisanal mining sector generated an average US$30 million annually in official gold exports between 1990 and 1994 – i.e., US$13.84 tons of gold produced artisanally during from 1990 to 1994.[2] This annual amount was only surpassed in 1999 when the Barrick-owned Bulyanhulu gold mine entered into production.[3] In 1992, 76% of all mineral export earnings came from gold mining by artisanal miners.[4] Such facts suggest the need to question the necessity and appropriateness of a mining policy focused so strenuously on attracting private foreign investment. Clearly, technologically sophisticated industrial mining is able to recover resources at greater depths and from lower-grade concentrations than the small-scale industry can. However, the geology of gold mineralisation in Tanzania is such that there is still considerable potential for small-scale resource extraction to occur. As one expert notes, "The majority of discoveries [by companies from Australia, Canada, South Africa, Sweden, and the UK] to date are focused on near surface deposits grading from 2 to 5 grams per ton".[5]

Finally, it is not clear that government earnings from taxes and royalties connected with large-scale foreign-owned industrial mining maximises the revenues and developmental benefits that could accrue to the country. Other strategies, such as minerals processing, development of the mining services and equipment supply side

1. *Ibid.*, p. 41, par. 56.
2. Dreschler, *op. cit.*, p. 81.
3. *Ibid.*, p. 73.
4. *Ibid.*, p. 81.
5. George Coakley, *The Mineral Industry of Tanzania*, U.S. Geological Survey, 1998, p. 1.

of the industry, as well as enhanced local ownership of mining and exploration companies in order to appropriate a greater share of profits, are all approaches that have enhanced the wider economic benefits for mining in industrial nations and that merit serious consideration by relevant policy makers with regard to the Tanzanian mining industry.

Conclusion

The issues raised by this series of case studies are complex and clearly merit closer investigation. They are presented to draw attention to the need for closer scrutiny of current trends. For, as the analysis of what we have described as the third generation of mining codes illustrates, recent forms of "re-regulating" African states and societies that have as their objective creating legal and regulatory frameworks designed above all to attract foreign investment, while clearly contributing to this objective, appear to fall far short of permitting sustainable development strategies and the introduction of norms and standards with regard to the protection of the environment, social impacts, or labour.

While attention has been drawn during the recent (2001–2003) *Extractive Industries Review* carried out for the World Bank Group to the need for more efficient and transparent *management* of resources in a sector that has often been characterised by corruption and rent-seeking behaviour – the importance of which can hardly be disputed – the issues raised in our analysis are of a complementary but different order. They concern not so much important technical issues related to the need for good administrative practices, but more substantive issues. These relate to the design of the reforms and the legal and fiscal frameworks that help shape the role of local states, the nature and objectives of state interventions, and the determination of to what end, under whose control, and for whose benefit extractive industries operate. In this regard, the extractive sector provides a particularly striking illustration of the way in which multilateral financial institutions, notably the World Bank, are, in view of their overall mission to reduce poverty and promote sustainable development, at times caught between contradictory and sometimes incompatible logics – promoting foreign private investment as opposed to promoting the social and economic development of countries and their populations. This appears particularly true in the post-adjustment African context, which has been characterised by a radical redefinition of the role of the state.

Rather than increasing recognition of the need for a greater developmental role for local states, it may be argued that the opposite trend appears to have characterised third- generation mining codes and certain recent recommendations.[1] For, if one looks at the likely effect of recent proposals on the role of states, understood in the sense suggested by Biersteker, the recommendations have tended to favour a

1. Van der Veen, Peter, "The World Bank Experience. Lessons From 10 Years of Mining Sector Reform: The Road Traveled", *Mining Taxation Workshop*, Mining Department, Washington D.C.: World Bank, 4–5 April 2000.

weakening of the state's fiscal basis, its capacity to monitor and enforce, and, consequently, decreased legitimacy and state sovereignty.

In this regard, the study commissioned by the World Bank, *Review of Legal and Fiscal Frameworks for Exploration and Mining*, proposes a "shift in the policy orientation of developing countries in favour of enabling and facilitating private investment in mineral resource development".[1] Four of the seven components of the proposed policy shift intended to create a favourable investment climate concern the regulatory function of the state. The state's capacity to implement development goals is seriously compromised by the proposal that it should withdraw even further from regulating key macroeconomic instruments. Moreover, its capacity to ensure a sustainable flow of net returns from mining activities and to maintain political sovereignty are challenged in a very direct manner, as the following recommendations illustrate:

i) Economic reform that liberalised the general investment regime (in the areas of taxation, currency exchange, banking, trade, and labour) and opened all sectors to foreign investors.

ii) Allowing or expanding private access to resources previously reserved to the state, *which involves a major change in the concept of sovereignty for many developing countries* (my emphasis).

vi) A reduction in ad valorem royalties required by the state.

vii) A reduction in corporate income tax rates, as well as customs duties on imported capital goods, so that they fall within a generally accepted range.[2]

On the one hand, there is little doubt that present forms of liberalisation and regulatory framework, designed to minimise risk and ensure a favourable investment climate, explain the increased presence of investors in the mining sector. This interpretation is confirmed, in the case of Canadian interests, by Michael Knuckey of Noranda, who underlines that while decisions to invest are complex, "changes in political systems, liberalization of investment policies, and the adoption of enticing new mining laws have created an appearance of reduced political risk in many places that were clearly off limits in the past".[3]

On the other hand, there is increasing evidence to suggest that such a degree of deregulation in the absence of a capacity to enforce existing norms concerning the

1. Koh Naito, Felix Remy, and John P, Williams, *Review of Legal and Fiscal Frameworks for Exploration and Mining*, produced for the World Bank, Mining Journal Books, London, 2001, vol. 1, p. 6.

2. *Ibid.*

3. Michael Knuckey, "Noranda Mining and Exploration: A New World, A New Direction", paper presented to the Prospectors and Developers Association of Canada (PDAC) and the Canadian Institute of Mining and Metallurgy, Toronto Branch, 13 March 1996, [web] http://www.noranda.com. Quoted in The North-South Institute, *Canadian Corporate and Social Responsibility, Canadian Development Report 1998*, chap. 4, "Beyond Best Practice. The Mining Sector", Ottawa: NSI, 1998, p. 75.

flow of export receipts, environmental protection, or social impacts, cannot but lead to a pattern of confrontation that is neither in the interest of local populations, their states, nor of industry.

Given the degree and forms of state withdrawal over the last 20 years, the question is no longer *whether* norms and standards should be defined or *what their basis should be*, but *who* should define them and *how* their enforcement should be ensured.

The analysis in this study suggests that individual actors within the industry cannot resolve these issues. More generally, the analysis suggests the extent to which it is not for industry to re-regulate new norms for social and economic development in lieu of the state, notably through the intervention of local or international NGOs. The issues are so large that such an approach may turn out to be counterproductive for several reasons.

A mining boom will not lead to economic diversification capable of generating long-term sustainable development in the absence of effective public policies that encourage such a process. In fact, in a study of Latin America and the Caribbean, the World Bank expressed the fear that "exploration successes will not necessarily translate into mines, related industries, employment, and the increase in national wealth if the requisite conditions are not in place".[1]

As the North-South Institute's 1998 study points out:

> No research has been carried out enabling conclusions to be drawn about whether Canadian mining investment in general … contributes or not to sustainable development. Technology transfer, the generation of employment, provision of capital, and export earnings are often referred to as benefits of multinational mining investment. We found no data, however, establishing overall effects in relation to these factors.[2]

On the specific issue of labour standards, according to the OECD the right of association is nonexistent or seriously impeded in certain mining countries. Fundamental labour standards, according to the 1998 North-South Institute report, are seriously restricted in several African countries where mining investment is important.[3]

Given the nature of the issues raised here, and the present context of increasing deregulation of state developmental functions, it is critical that private sector actors not substitute themselves for state actors but rather recognise the negative implications of present trends, as these are to the advantage of neither foreign investors nor the local populations.

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1. World Bank, "A Mining Strategy for Latin America and the Caribbean: Executive Summary", World Bank Technical Paper No.345, Industry and Energy Department, 1996, p. 3, [PDF] http//www.worldbank.org. Quoted in NSI, *op. cit.*, p. 78.
2. *Ibid.*, pp. 77–8.
3. *Ibid.*, p. 80.

Beyond the call made by the World Bank Group *Extractive Industries Review* for more transparent management of resources from the mining sector, with which it is difficult to disagree, our study suggests that the legacy of the 1980s and 1990s underlines the need to recognise the central role and responsibility of multilateral and bilateral actors in shaping the institutional frameworks and the developmental outcomes in the extractive sector in Africa. A review of the design of the reforms of the last two decades also suggests the extent to which the role of external actors has precluded the countries concerned from adopting alternative development strategies for the sector. Preliminary findings concerning the impact of past reforms suggest, moreover, the need to review certain fundamental assumptions at the core of past recommendations. Most importantly, there appears to be ample evidence of the need to question whether proposed reforms formulated from the perspective of financial institutions, which privilege short-term fiscal redress and investment incentives and which tend to equate economic growth driven by foreign investment with poverty-reduction strategies, will, in the absence of a more rigorous developmental role for local states, contribute to sustainable social and economic development and environmental protection.

In the absence of capacity in certain African states to formulate and enforce norms and standards, the question of *who* will do this and *how* assumes particular importance.

In the short term, it is clear the answer cannot merely be *individual* corporate actors. In view of the real risk that the present situation could deteriorate and lead to increasing confrontation, there are, however, various measures that can be taken.

Until such time as an international regulatory framework is put in place, individual companies can agree to:

1. Adopt a protocol on the conduct of business, based on the "Draft Fundamental Human Rights Principles for Business Enterprises" drawn up by the UN Sub-Commission on the Promotion and Protection of Human Rights. These principles should be strengthened by the addition of a strong and independent monitoring board, including rules for enforcement, which could become the basis of a recognised international regulatory framework that is binding on states and business enterprises.

2. Implement the Organization for Economic Cooperation and Development's "Guidelines for Multinational Enterprises", and ensure that the designated National Contact Points are given greater prominence, with powers of monitoring and enforcement. A company's willingness to implement the OECD guidelines could become a condition of eligibility for all Northern government guarantees and export credits.

More generally:

3. The countries that are home to mining companies that operate internationally should agree to develop corporate social responsibility guidelines. These would make reference to established indices of corporate social responsibility, such as those set out in the OECD's "Guidelines for Multinational Enterprises". For these to be effective, mechanisms to ensure the monitoring and enforcement of these guidelines, involving participants in the countries and the mining communities concerned, need to be established.
4. Stock exchanges in the countries where mining companies are registered should establish corporate social responsibility disclosure requirements, modelled on corporate governance guidelines. As part of their listings requirements, companies would be required to disclose in their annual reports or annual information circulars their approaches to corporate social responsibility, evaluate the extent to which these practices conform to the corporate social responsibility guidelines set out in stock market listing rules, and explain any discrepancies.

Any form of public support for a mining company should be conditional upon a company's capacity to demonstrate its strict adherence to corporate social responsibility guidelines.

Finally, given the lack of financial and technical resources and capacity in many African states to monitor and enforce norms, it should be the responsibility of the countries of origin of the companies that operate internationally to ensure respect for norms and standards contained in such guidelines. The fact that such practices have already begun to be implemented in several Scandinavian countries and are recommended in the European Union's *Guidelines for European Enterprises Operating in Developing Countries* (1998), is clear proof of the feasibility of such measures. In this regard, there is a need to go beyond voluntary codes of conduct and guidelines in favour of establishing mechanisms enabling independent monitoring and binding enforcement.

Ultimately, however, the responsibility to define, monitor, and enforce norms and standards must rest with local governments and the communities concerned. The current process of redefining the role of the state through the introduction of increasingly standardised legal and fiscal frameworks intended to create a favourable investment environment, but at the expense of the state's capacity to respond to the challenges of development, is neither viable nor in the interest of local populations or of foreign investors.

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