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Undermining the forests

The need to control transnational mining companies: a Canadian case study



BY *Forest Peoples Programme, Philippine Indigenous Peoples Links, World Rainforest Movement*

JANUARY, 2000

Undermining the forests

The need to control transnational mining companies: a Canadian case study

ONE IN A SERIES OF REPORTS ON TRANSNATIONAL CORPORATIONS AND THEIR IMPACTS ON FORESTS AND FOREST-DEPENDENT PEOPLES

BY *Forest Peoples Programme*
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JANUARY, 2000

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Material in this report has been taken mainly from published sources and care has been taken to ensure its accuracy. The situation with regard to mining companies and their operations changes rapidly, however, and comments and additional information will be welcome.

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Also in this series:

'High Stakes—the need to control transnational logging companies: a Malaysian case study'
AUGUST 1998

Available in English, French, Spanish and Bahasa Malaysia from:

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Preface

THIS REPORT is the second[i] in a series which focuses on the social, environmental, economic and political impacts of transnational corporations (TNCs) on forests and forest peoples. The reports present analysis and case studies of particular sectors, countries or regions and examine key companies' activities, political connections and *modus operandi*. The reports also examine the capacity of the main actors—national governments of both the home and host countries; civil society; relevant intergovernmental institutions and TNCs themselves—to mitigate the negative impacts of TNC operations. The selection of the case studies is based on:

§ requests for information from affected local communities;

§ particular current importance of the issue or sector;

§ relevance to national and international debate and policy on forests and forest peoples.

The question of how to control multinational corporations is not a new one and is of fundamental significance to the emerging international agenda on how to achieve environmentally and socially appropriate development. Recently, the discourse of regulation of industry has been eroded in favour of self-regulation through mechanisms such as industry-developed codes of conduct, which are increasingly being put forward as a means to achieve sustainable development. This change manifested itself most clearly in the early 1990s, with the effective closure of the UN Center on Transnational Corporations (UNCTC), a body established to monitor the activities of TNCs, and at the 1992 Earth Summit in Rio, when a draft chapter on the environmental responsibilities of TNCs was removed from the agenda following pressure from the business community and Northern governments.

Whilst the role of states should be to represent the best interests of their citizens, all too often it is the relatively few economically powerful voices within a state, such as TNCs and their subsidiaries, which exert the strongest influence. And whilst TNCs can be important contributors to a state's economic, social and environmental health, this is not necessarily the case: in fact, it is frequently the opposite. Accordingly, the need for control of TNCs has to be addressed.

It is our hope that this series of reports will make a significant contribution to the debate on how to achieve a balance between economic interests, the state and civil society, a balance which is geared more closely to realising sustainable and equitable forest use and management. With this objective in mind, these reports aim to:

§ Raise awareness within industry of its impact on forests and forest peoples.

§ Inform policy and decision makers of the potential dangers of unsustainable development, especially in those countries which are inviting in foreign investors, or are under pressure to liberalise their economies or to offer incentives to investors who do not adhere to strict social and environmental standards.

§ Be a resource guide for local environmental and social NGOs working on issues raised by the industry sectors and companies mentioned in the report series.

§ Bring the issue of TNC operations and their impacts on forests to the agenda of intergovernmental processes dealing with forests, particularly the Intergovernmental Forum on Forests (IFF).[ii]

As the series progresses, occasional papers may be produced focusing on themes which emerge from the research and data presented in the case studies.

[i] The first report, titled 'High Stakes; The Need to Control Transnational Logging Companies:a Malaysian case study' was published by the World Rainforest Movement and Forests Monitor in August 1998.

[ii] The IFF was established under the Commission on Sustainable Development (CSD) in July 1997 to continue the international policy debate on forests. The main components of its mandatge are the promotion and facilitation of the implementation of the proposal for action produced by the Intergovernmental Panel on Forests (IPF, 1995-1997); consider matters left pending and other issues arising from the programme elements of the IPF process; debate international arrangements and mechanisms to promote the management, conservation and sustainable use of forests.

Introduction

IN CONVENTIONAL FORESTRY DEBATES mining barely gets a mention.[1] Forests are seen as the professional domain of the forester, whose job is to manage stands of trees. Typically, governments deal with forestry and mining as separate "sectors" often through quite separate ministries and subject to quite distinct bodies of law.

In fact, the areas of land subject to the jurisdiction of mining and forestry institutions and legislation often overlap directly while the goals and objectives of one "sector" often conflict with and undermine the other's. All too often, moreover, the official policies and priorities of both sectors exclude or marginalise the rights of forest-dwellers. Commonly, forested areas are treated as state lands where local residents have few, or even no, rights. Likewise, in all but a few countries, sub-surface resources are treated as state assets to be "developed" in the national interest. For forest-dwellers, therefore, mining in forests is a double blow, a near unstoppable intrusion on their lands and threat to their livelihoods.

The World Rainforest Movement (WRM), an international alliance of NGOs from North and South, concerned about forest destruction, was established in the mid-1980s specifically to challenge the conventional approach to forests,[1] which promotes the exploitation of forests by commercial interests while excluding local communities.[2] The WRM emphasises that pressure on forests often comes mainly from outside the forestry sector and thus solutions to the forest crisis need to be cross-sectoral, addressing these outside pressures as much as reforming forestry itself.[3] Above all the WRM calls for a shift in priorities away from top-down solutions and impositions and in favour of processes that respect the rights and initiatives of local communities, indigenous peoples and the rural poor.[4]

That mining can pose a threat to the integrity of forests is obvious. Clearance of surface vegetation and soils to gain access to sub-surface minerals has evident and often long-lasting impacts. Surface scarring by mines themselves, with associated erosion and siltation, is exacerbated by spoil heaps, tailings dams, associated mining works, disrupted water-tables, local chemical changes, including acid mining drainage and the release of heavy metals and the consequent pollution of soils and waterways. Mining operations use, and too often pollute, vast quantities of water. Mines can also be massive consumers of timber. Where mineral resources are extensive, the damage can affect substantial areas either through huge open-cast mining operations or through the combined impacts of a multitude of small-scale mines. Any local communities previously dependent on the renewable natural resources in these areas suffer immediate losses as a result, with their livelihoods undermined, their social organisations disrupted and their cultures transformed. Cash compensations, if paid, cannot restore these losses and the dark legacy of mining continues even after a mine is abandoned.

The impacts of mines, however, often spread far wider than this. Mining can be very lucrative, and large- and medium-scale operations may command huge investments and generate substantial returns. Mining in remote forest areas thus often implies the establishment of major infrastructures – roads, ports, townships, river diversions, dams and power plants – all needed to make the mines themselves workable and productive. Downstream processing of ores require additional industries, making further demands for energy, water and land. Big mines often constitute the spearpoint of even larger development plans, which are designed to transform whole regions. Brazil's Grande Carajas project, for example, which centres on the Companhia Vale do Rio Doce's iron ore mine, part-funded by the European Iron and Steel Community, forms the centre-piece of a huge complex of railways, ports, dams, plantations and colonisation schemes which is affecting tens of millions of hectares in the eastern Amazon in Brazil.[5] The World Resources Institute estimates that mining and oil exploration threaten 38% of the world's "frontier forests" – the last remaining areas of relatively undisturbed old-growth forests.[6]

Whether planned or unforeseen, mines and their associated infrastructures trigger widespread economic and social changes and environmental transformations. Roads, and the lure of employment opportunities in new mining districts, bring settlers into forest areas, overwhelming both local communities and the capacity of government institutions to regulate access to lands and forests.

The power of the mining industry also has more enduring impacts on the political ecology of forests. Large-scale mines are the province of wealthy corporations and international capital and the over-enthusiastic promotion of mining thus results in enduring shifts in power away from local people and civil society in favour of international corporations and national elites.[7] In Guyana, for example, the reluctance of the government to recognise indigenous peoples' rights in large part results from the pressure from international financial institutions, the mining lobby and senior government financiers to facilitate access to the gold, bauxite and diamonds in the interior.[8]

Likewise, in neighbouring Venezuela, where indigenous rights are more weakly recognised than almost anywhere in Latin America, mining lobbyists proclaim that their country's "natural vocation" is mining, leading to radical rewriting of national laws to facilitate mining by foreign companies on indigenous territories.[9]

The promotion of large-scale mining thus entrenches policies, institutions and mind-sets that visualise "development" as a top-down enterprise to be imposed on local communities and environments – the very antithesis of the model of "sustainable development" promoted by the Brundtland Commission. Indeed, in some countries, struggles for control of mines have completely overwhelmed the capacity of the nation state to function. Sierra Leone's civil wars, fuelled by diamond mining, have resulted in terrible human rights abuses and complete lawlessness in the southern forests.[10]

Obviously, the prospects for forests and forest-dwellers are significantly worsened in these circumstances. While international forestry thinking has begun to shift, encouragingly, in favour of more pluralistic models, which promote more democratic regimes of forest management,[11] large-scale mining is reinforcing exactly the opposite tendency. The industry cannot, however, be wished away. What this publication advocates are: first, a greater appreciation of the risks and problems posed to forests and forest-dwellers by mining; secondly, that international organisations, governments and development agencies institute far stronger controls over the industry to mitigate its impacts; thirdly, that independent information be available; and, fourthly, but most importantly, that laws and regulations are changed to ensure the recognition of local communities' rights and that they have the right to veto development projects proposed on their lands. If mines could only go ahead with the free and informed consent of those communities likely to be affected, the playing field could be leveled giving as much weight to social and environmental considerations as to economic ones.

[i] For example, after two years of intensive review of the world's forests, the report of the Intergovernmental Panel on Forests to the UN's Commission on Sustainable Development in 1996 makes only one allusion to mining. *Report of the Ad Hoc Intergovernmental Panel on Forests at its Fourth Session,* E/cn.1/1997/12.

Mining and the liberalisation of mining codes to ease the entry of foreign mining companies has become the source of protest and tension. Here, Philippinos call for the scrapping of the 1995 Mining Code.

© CATHERINE COUMANS



Executive Summary

MINING IS OFTEN ignored in forestry debates, yet has obvious and severe impacts on forests. Indeed, mining is considered to be the second biggest threat (after commercial logging) to the world's remaining frontier forests. The mines themselves cause vegetation to be cleared and topsoil removed, contributing to soil erosion and river siltation. These environmental impacts are exacerbated by rock waste heaps, tailings dams, disrupted water-tables, acid mining drainage, the release of heavy metals and the consequent pollution of soils, air, waterways and coastal waters.

The forests and river ecosystems affected by mining are usually within the homelands of forest peoples, who in most cases suffer the worst impacts of large-scale mining. Mining and its related infrastructure, such as dams, roads and ports, result in land disputes and displacement of local communities, loss of livelihoods, exclusion, poverty and severe health hazards. In several places where Canadian mining companies operate, communities who have traditionally had access to forests, rivers and coastal areas for their subsistence and local needs are excluded from such resources because these areas have been designated and awarded as mining concessions without community consent. Social impacts can be all the more severe as mining companies are notorious for their readiness to operate in countries with blatantly corrupt regimes. The conflict-creating nature of large-scale mining turns mineral-rich areas into zones of high tension and, in many cases, violence. Once again, those who lose out are the local communities, whose human rights are often violated through torture, disappearances and murder.

Because of the severe impacts of mining, the International Alliance of Indigenous/Tribal Peoples of the Tropical Forests called in 1992 for:

> *The cancellation of all mining concessions in our territories imposed without the consent of our representative organisations. Mining policies must prioritise, and be carried out under our control, to guarantee rational management and a balance with the environment.*[i]

In 1996, a conference of indigenous and other forest-dependent peoples, organised under the auspices of the Intergovernmental Panel on Forests (IPF), demanded that:

> *No activities must take place on indigenous peoples' territories without full and informed consent through their representative organisations, including the power of veto.*[ii]

Despite the fact that international legal instruments require states to recognise and protect the rights of indigenous peoples, in the vast majority of states these rights are not fully respected and discriminatory practices are employed to dispossess indigenous peoples of their lands and resources. As a result, mining has continued to affect forest peoples' lives and resources. Canadian mining companies are not unique in their impacts on forests and forest peoples, but their pre-eminence in the industry, particularly in financing and exploration, means that they play a leading role in such impacts.

There is a myth that the Canadian mining industry is divided into two camps: the juniors, which largely depend on venture and speculative capital and operate irresponsibly, and the majors (or large mining companies), which operate responsibly. A close look at the operations of these companies, however, reveals that major companies and juniors are interdependent. Majors often take over mines discovered by the juniors and are themselves also responsible for the continued perpetration of environmental and social disasters.

A second myth is that the wealth of Canadian mining companies depends largely on the location and exploitation of mines overseas. In fact, while it is certainly true that Canadian companies have expanded significantly overseas in the past 15 years, driven by promising and unexploited geology and favourable liberalised mining policies in southern countries, the industry's key target and mining investments remain within Canada. Over the past few years, the Canadian mining industry has expanded its exploration and development activities both domestically and internationally.

As a result, the Canadian mining industry has emerged as a world leader. It ranks first in global production of zinc, uranium, nickel and potash; second in sulphur, asbestos, aluminium and cadmium; third in copper and platinum group metals; fourth in gold; and fifth in lead. Overall domestic mineral exploration investment more than doubled between 1992 and 1996 to over C$945 million (US$643 million), in part due to exploration rushes in Labrador and the Northwest Territories. The industry now has interests in over 8,300 properties worldwide, 3,400 of which are in 100 foreign countries. It now carries out one-third of all mineral exploration world-wide and represents the largest concentration of foreign mining companies in Latin America and the Caribbean (where it has interests in more than 1,200 mineral properties), which is currently the chief geographical global target for mineral exploration.

In 1998, Canadian mining companies raised over US$4.5 billion for domestic and foreign mining projects on the four Canadian securities markets in Vancouver, Toronto, Alberta and Montreal. This figure represents 51% of the world's mine finance, 80% of which was raised on the Toronto Stock Exchange. Despite some reform to the stock exchange systems in the wake of notorious frauds, most notably the bogus gold discovery by Bre-X in Indonesia, very little has been done to curb or control the market or its more speculative investors effectively. The pre-eminence of the Canadian mining industry relies in part on the Canadian government and Canadian financial institutions.

The rapid expansion of Canadian mining companies has been aided by major changes made in recent years to mining regulatory frameworks, ownership and investment patterns. The mining laws of more than 70 countries have been" liberalised" with the stated purpose of attracting greater foreign investment. Government control and even ownership have been replaced by a competitive chase after investors, which has in several instances led to lower standards and lower returns for host states.

The liberalisation wave was orchestrated by the World Bank and supported by the United Nations Development Program (UNDP) and regional development banks. Mining-related loans from the World Bank during the 1990s were mostly directed at mining policy changes (in favour of the industry) and at provision of hidden subsidies and support to some of the world's richest companies. The international debt crisis during the 1970s and 1980s and the continuing dependence of debtor nations on Bank loans has given the World Bank great influence over government policies in many debtor countries. Privatisation and deregulation have therefore been widely and relatively easily imposed, including priority privatisation of the mining sector. The massive sell-off of state-owned mining assets and the industry-favourable policy climate has concentrated the control of mining production in the hands of a few transnational miners still further.

Advocates of mineral development including the World Bank tend to stress the role of mining in producing raw materials which are the basic essentials for national development. In practice, however, a growing concentration of investment has been in the search for gold and diamonds, which are attractive for their profitability rather than their usefulness.

Having orchestrated the dismantling of national control of mining and having liberalised mining regulation across the globe, the World Bank has joined with industry leaders in actively promoting what is for the industry their preferred replacement: voluntary codes, voluntary guidelines and the highlighting of best practice. Some mining companies now claim that their industry is making profound changes towards responsible and even "sustainable" mining. Some NGOs, persuaded by this industry shift, have also pushed for the adoption of voluntary standards as a first step towards improvements, although most NGOs insist on independent verification and regulation. Many affected communities do not accept the right of mining companies to enter their territories, reject mining as incompatible with their culture, economies or traditions, and have rejected the elaboration of Codes of Conduct. Their demand is for priority to be given to the recognition of land rights and the rights of peoples to determine the future of their own lands. Pressure for change is therefore mounting on an industry that has so far, at best, tried to clean up its image rather than to reform its practice more fundamentally.

The case studies from tropical forest countries presented in this report confront some realities that belie mining companies' appeals to trust them. In the Philippines, for example, Placer Dome, a major Canadian company, operated in close collaboration with then dictator Ferdinand Marcos. Despite being responsible for the severe pollution of rivers and coastal areas and for the worst mining environmental disaster in the history of the Philippines, the company continues to deny responsibility for the massive environmental and social impacts caused by its operations. Meanwhile, a junior company, TVI, is using military forces to repress local peoples' opposition to their mining project.

In Indonesia, international mining corporations favoured the political 'stability' offered by former President Suharto's authoritarian regime, as well as low land, labour and environmental costs. The Indonesian state has so far proritised the demands of investors over the livelihoods of communities in forest, rural areas and cities.

The case of French Guiana highlights the hypocrisy of the European Union, which passes resolutions condemning the treatment of indigenous peoples by governments in southern countries while ignoring the situation of indigenous peoples within the territories of the European Union itself, especially in terms of recognising and enforcing indigenous peoples' rights in member states. French mining laws were revised in 1996 to facilitate investment and shorten administrative procedures rather than to introduce environmental and human rights guarantees.

In Suriname, the government began inviting multinational investment in the gold mining sector in 1991. Golden Star was the first foreign company to enter the country, followed by many others; by 1999, exploratory concessions covered approximately 30% of the country's land. Indigenous and tribal peoples, whose rights to their territories and resources are not recognised in Surinamese law, have vigorously condemned this multinational invasion and demanded that all concessions be suspended until their rights are recognised in accordance with international human rights standards. There is currently no requirement for indigenous and Maroon communities to be consulted if a mining concession is granted on their ancestral lands, and there is no effective environmental legislation and monitoring capacity with respect to mining.

In Guyana, in order to generate income and to satisfy the conditions of a 1991 International Monetary Fund (IMF)/World Bank structural adjustment programme, the government has opened up the natural resources of its interior, especially timber and minerals, granting mining concessions that are larger in area that all the combined recognised indigenous lands in the country. Governmental monitoring and regulatory capacities are minimal and existing laws are not enforced. Many Amerindians have asserted that the only adequate protection is the full recognition of their territorial rights, including rights to subsoil and minerals.

As monitoring of mining operations and enforcement capacity by governments are weak (and are being eroded), local community groups and NGOs increasingly face the task of campaigning against the negative impacts of indiscriminate mining while affected communities are in many cases forced to desperate measures of defence.

The overall purpose of this report is to highlight the severe, and sometimes overlooked, impacts of mining on forests and forest peoples. We hope that within Canada the report assists in identifying the key role of the Canadian mining industry in this process and, through the case studies and analysis, alert concerned bodies and individuals to the urgent need for change. The conclusions and recommendations refer to the issues raised by the material in the report and therefore do not deal with the full range of critical problems generated by the mining industry, such as workers rights and conditions. We hope, however, that they can contribute to a wider debate on the need to address the fundamental crisis facing both the mining industry and the peoples and ecosystems adversely affected by its operations.

[i] Charter of the Indigenous-Tribal Peoples of the Tropical Forests, 1992, Art. 26

[ii] Leticia Declaration on the Management, Conservation, and Sustainable Development of All Types of forests

Part I

Mining the planet: the Canadian mining industry and its influence world–wide

Canadamage Inc[3]

Canadian mining disasters [i]

April 24 1998, Los Frailes, Spain: Boliden Ltd, Canada: dam collapse causing widespread damage and contamination to farmland and water sources, costing, according to the company, at least US$150 million.

March 24 1996, Marinduque, Philippines: Placer Dome *(see 'The Boac River Disaster', page 64)*

Aug 19 1996, Omai, Guyana: Cambior and Golden Star *(see Guyana, page 37)*

1985–present, Summitville gold mine, Colorado: managed by Galactic Resources, VSE: heap leach pads breach almost as soon as mine is opened, resulting in cyanide and heavy metals contamination of local waterways, causing the worst environmental mine-related disaster in the USA for the past twenty years.

[i] Coal mines and small scale operations are not included in this list, nor are ongoing, less cataclysmic failures of tailings containment, including many which have afflicted base metal and uranium mines in Canada for many years.

FROM THE OUTSET it is important to quash two myths. The first is that Canada's corporate industry is irretrievably divided into two camps: on the one hand, the "juniors", who are largely irresponsible, devious fly-by-night operators; heavily dependent on venture capital raised on the "wild-west" Vancouver stock exchange. On the other hand, the "majors" or large mining companies, which supposedly embrace an environmental and social ethic. The second myth is that the financial prosperity of Canada's mining industry depends primarily on the location and digging up of foreign lands. This myth is discussed in more detail later *(see 'The myth of mining flight', page 15)*.

Junior and major companies: two sides of the same coin

This report contains many examples of the unacceptable behaviour of Canadian mining companies overseas, recorded since the country's junior mining sector became the predominant global force for "discovering" minerals and metals world-wide. However, some of the worst social and ecological impacts of the past fifteen years can be ascribed to some of the country's biggest enterprises, backed by their most respected private, financial, and governmental institutions.

It is generally agreed—both inside and outside the minerals industry[1]—that the worst scenario is for a mine's tailings containment facility—usually a dam—to collapse suddenly and almost entirely, propelling an avalanche of heavy metals (and, in the case of gold, cyanide-contaminated effluent) into surrounding ecosystems and water sources. Unless contained and neutralised immediately, these discharges can additionally pose acid mine drainage (AMD) problems *(see Mining impacts, page 28)*. Canadian companies have been directly responsible for four out of five of the worst cases of such a scenario since 1986 (Los Frailes, Marinduque, Omai, Summitville—the non-Canadian example being at Harmony Gold in South Africa in 1994). However, only one of these companies could be termed a junior *(see feature 'Canadamage Inc.', left)*.

Just how much juniors have achieved independently in the development of viable new mines during the past fifteen years is questionable. One considered estimate is that they have made a third of all recent global "discoveries".[2] There is hardly one example, however, of a promising find not swiftly attracting the interest—and investment—of a middle-ranking or large mining company. It is important to understand how dependent the juniors are on the mining expertise, finance and fund raising respectability of the big companies to develop what they find. Today this dependence is further reflected in the equity that large companies hold in some of the juniors. Large companies, in return, also find the juniors convenient and even necessary as a front behind which they can work in high risk ventures and in controversial regions and projects.

Bringing up junior: junior companies in the 1990's

Until 1997 junior companies played a major role in locating and ruthlessly "proving up" mineral deposits, especially in areas of intense social conflict and often fragile biospheres including Angola, Sierra Leone, the Democratic Republic of the Congo, Venezuela's Kilometre 88 region, and in Central America. Since then, however, three main factors have reduced their role substantially: the drastically falling (until late-99) price of gold, the main metal for which they search; Asia's recent banking and credit crisis; and the Bre-X scandal.

In Spring 1997, unidentified employees of a Canadian junior called Bre-X were found to have falsified results from several years gold sampling at a deposit in East Kalimantan (Indonesian Borneo). A purported 70 million ounces of the yellow metal hadn't been sitting in the ground, after all: on the contrary the find was virtually worthless. Compounding this scam was the fact that, when drawn into the frenzy, well-established mining leaders (including Barrick, the country's premier gold producer) had not called for a thorough assessment of the deposit's reserves. Many others—including media commentators, investment advisors and Canada's stock promoters—had willingly fuelled the gold-rush hysteria and hype *(see Indonesia, page 71)*. When the facts were revealed, Bre-X shares collapsed, but not before several of the company's promoters had walked away with fortunes gained from grotesque speculation in the company's stock.[4]

Just as Canada's stock exchange regulators were frantically trying to limit post-Bre-X damage to their credibility, the 1997 "Asian Crisis" (another result of gross and corrupt capital speculation) struck a further blow to mining companies and their backers. Credit was squeezed and markets contracted. Since then, some companies have sunk without trace and others have diversified out of mining altogether (several of them have invested into Internet ventures). Others have merged, or have been taken over by large companies.

Licence to mine; Canadian mining overseas

Geographical targeting

Mineral exploration today, says the Prospectors and Developers Association of Canada (PDA) is *"entirely market driven and internationally competitive"*.[5] The role of state and international agencies, especially the UNDP, which was so important in locating mineral resources in many countries during the 1960's and 1970's, has drastically diminished. In contrast, annual expenditure on global corporate exploration doubled between 1992 and 1997; the Canadian contribution to this rose fivefold (from US$100 to US$500 million). The number of countries with exploration programmes has also increased in the past eight years from 59 in 1991 to 95 six years later[6]; Canadian outfits are active in almost all of these.

No less than a third of all mineral exploration world-wide is currently being conducted by the "larger" Canadian companies (defined as those spending more than C$4 million (US$2.7 million) a year on exploration, a definition which rather confusingly encompasses a significant number of "juniors"). In 1998, for the first time, Canada-based companies dominated exploration in the USA itself. The industry carries out one third of all the world's mineral exploration and now has interests in over 8,300 properties world-wide, 3,400 of which are in 100 foreign countries.[7] It also represents the largest concentration of foreign companies in Latin America and the Caribbean (having interests in more than 1,200 mineral properties), which is currently the chief geographical global target for mineral exploration. Canadian outfits allocated more than C$440 million (US$300 million) during 1998, by far the largest of any country. They concentrated investments primarily on Argentina, Bolivia, Chile, Colombia, Guyana, Mexico and Peru, followed by Costa Rica, El Salvador, Honduras, Nicaragua and Panama. In all 12 nations, Canadians held the dominant share of exploration investment.[8] Africa, whose importance as a source of minerals for the new millennium is increasing, has also become a key Canadian target *(see Appendix, page 86)*.

Ranking the miners

Canada's mining companies can be divided into four ranks. At the top are the country's biggest diversified mining companies, which are among the country's most powerful commercial enterprises: Noranda,[ii] Cominco/Teck, Inco, Falconbridge, Alcan, Placer Dome, Barrick Gold and Cameco. Close scrutiny of the activities of Canada's mining companies overseas throws up these names time and time again. The first five are fully integrated "downstream" in the processing, upgrading and refining of their chosen metals. Together with Placer Dome, they are also inveterate world travellers, ranking among the world's most geographically "spread" mining corporations. While they may vie with other big mining companies for dominance over specific metals or deposits, and indeed with each other, they also have crucial cross-holdings: Teck being the biggest shareholder of Cominco, and Noranda effectively controlling Falconbridge.

Cameco and Barrick, however, are not so thoroughly globalised. Barrick's main strength is in its Nevada mines, and it has joint venture interests in South Africa *(see Appendix, page 86)*. Cameco has a minor stake (6.45%) in ERA's large Ranger mining on Aboriginal territory in northern Australia. It operates the Kumtor gold mine in Kazakhstan, which became notorious for a huge cyanide spill in 1998, but which has also proved a nice profit-earner for the Canadian company.[9]

A second rank of big companies, while not as powerful or strategically important, still have stakes in world-class mines and are joint venture partners for the bigger companies. For example, Rio Algom is a main investor in the vast Antamina project in Peru[10] and is entitled to substantial copper production from new Chilean mines: Cerro Colorado and Spence, as well as the Argentinian copper-gold mine at Alumbrera.[11] Inmet, though surrendering its stake in Antamina in 1999[12] retains important shares in the Ok Tedi mine in Papua New Guinea *(see feature 'Ok Tedi: a poisoned legacy?', over page)* and in the huge German copper refiners, Norddeutsche Affinineire AG.

[ii] Noranda's biggest single shareholder (40%) is Edper Brascan, Canada's twenty-third largest company. Edper was originally set up by the powerful Bronfman brothers, which own Seagram's the world's biggest distillers. It amalgamated in 1997 with Brascan, carrying with it Brascade Resources. These two companies have major investments in Brazil. Edper Brascan also acquired a sizeable stake in Battle Mountain Gold of the US.

A third group consists of mining companies that have moved (or are moving) up from their junior status to a middle position, thanks to a combination of astute financial management and success in locating rich ores. Among these are Cambior, and its joint venture partner, Golden Star Resources,[iii] both of which financed the now notorious Omai gold mine in Guyana *(see Guyana, page 37)*. Despite its responsibility for this unprecedented disaster, the worst of its kind in Latin America, Cambior's reputation still runs high within Canada, especially on its home territory of Quebec. It has aggressively bid for other Canadian juniors.

In contrast, Golden Star has clearly over-reached itself abroad (notably in Africa and in the Guiana Shield). This outfit previously controlled by the world's most infamous

[iii] GSR is registered in Denver, Colorado but raising finance mainly on the Toronto Stock Exchange

Ok Tedi: a poisoned legacy[13]

THE Ok Tedi mine in Papua New Guinea (PNG) dumps 80,000 tons of contaminated waste rock and tailings per day from the mine-site directly into the Ok Tedi and Fly Rivers. The resulting impacts have already been devastating on both people and environment. According to Ok Tedi Mines Limited (OTML) themselves, mine waste could seriously damage up to 1,350 square kilometres of forest along the rivers. Independent reviewers, however, fear an even wider impact. The company concedes that, given the sheer volume of tailings already in the river and continued erosion from the waste rock dumps adjacent to the mine in the mountains, whatever the future of the mine, the environmental problems will continue to grow worse over the next forty years. This is as far into the future as the company's models allow the company to predict. The problems, however, may last even longer: if the tailings are subject to acid mine drainage effects, as is feared, the poisonous pollution may continue for many more years.

The mine exploits a major copper deposit in the Western Province of PNG. OTML has three major shareholders: BHP owns 52%, the PNG government owns 30%, and Inmet Mining Corporation, a Canadian owned company, holds 18%. The Ok Tedi mine contributes an estimated 20% to PNG's exports, and 10% to its gross domestic product.

The mine is operated by BHP, one of Australia's largest corporations. It began production in 1984. By 1989 it was already clear that environmental degradation from the mine was causing severe hardships downstream. Yonggom leaders Alex Maun and Rex Dagi—representing affected landowners—brought a legal case against the company in Australia for its responsibility for environmental destruction and local communities' suffering. BHP tried by all means to stop this case but were held in contempt when it was exposed that they were collaborating with the PNG government in drafting a law that would have criminalized participation in legal action abroad against corporations operating in PNG. The case was settled out of court in 1996 with promises of approximately US$500 million in compensation and the removal and containment of tailings.

Some compensation has been paid but there has been a complete failure to act on the commitment to tailings containment. The company originally posed four possible options: (1) to do nothing, which was regarded as unacceptable, (2) to build a tailings dam, (3) to dredge downstream in the lower Ok Tedi River to remove some of the tailings build up and (4) to build a tailings pipeline at a cost of several hundred million dollars to take the tailings from the mine to a stable lowland waste dump, along with a dredging operation.

In August 1999 OTML announced, however, that the environmental impacts of the Ok Tedi mine on the surrounding environment *"would be far greater and more damaging than predicted."* The company also announced that none of the solutions it had studied, to date, would adequately solve the mine's environmental problems.

According to a press statement from BHP,

> *"From BHP's perspective as a shareholder, the easy conclusion to reach, with the benefit of these reports* (studying the environmental impacts and possible solutions) *and 20/20 hindsight, is that the mine is not compatible with our environmental values and the company should never have become involved."*

In a related development, BHP hired a law firm to determine whether it has already met its "legal" obligations to PNG landowners from environmental damage caused by the mine. BHP's recent actions have prompted concerns, amongst environmental groups and community leaders, that BHP plans to abandon its commitment to environmental cleanup and social compensation. The company has posed the unacceptable alternative of either abandoning the mine and area or being allowed to continue operations in order to finance some clean up activities.

The "surprise" expressed by OTML and BHP at the scale of environmental damage was greeted with cynicism by critics and observers who have been pointing to the huge impacts of the mine since the 1980s. A United Nations Environment Program report conducted in 1995 also identified massive environmental impacts.[14] Stuart Kirsch, an anthropologist who has worked in the area for 15 years expresses the widespread suspicion and disgust for the current proposals of the company:

> *"For BHP to threaten to walk away from the project is completely irresponsible in my view. About two years ago, BHP ran an ad campaign in British Colombia, in Canada, touting their environmental record in the Island Copper mine closure. The advertisement showed a sparkling blue lake and a bright sunny sky, along with the slogan, "BHP: Leaving the environment the way we found it." I challenge BHP to live up to their corporate propaganda. They should clean up the Ok Tedi and the Fly Rivers, and not threaten to abandon the problems downstream".*[15]

mining magnate, Robert "Toxic Bob" Friedland *(see feature 'Robert "Toxic Bob" Friedland', over page)* has had constant internal debt problems over the past five years: in August 1999 its auditors expressed the opinion that the company may not survive "as a going concern" unless it raised substantial new capital or sold off some assets.[16]

Several other juniors, however, are now forcefully forging themselves into bigger enterprises. These include Afri-Ore, a company which has seized opportunities in western and southern Africa (in both diamonds and coal[17]), IAMGOLD (in joint venture with Afri-Ore on the Witwatesrand reefs in South Africa[18]), Bema Gold, Metallica, Pangea—and the sprawling brood of outfits directly or indirectly controlled by Friedland *(see feature 'Robert "Toxic Bob" Friedland', over page)*.

Finally, there is a new—and important—breed of Canadian company which astutely avoid the costs of major exploration and development on their own account but gain high stakes in profitable projects by purchasing net smelter royalties. Between them, Franco-Nevada and Euro-Nevada last year had a market capitalisation of US$3,260 million.[44] Now that they are merging,[45] they are likely to become Canada's fifth biggest mining corporation. They threaten also to become large miners themselves; in 1998 they opened up Ken Snyder, their own gold pit in Nevada *(see feature 'A right royal picnic', right)*.[46]

Where Canada rules the world

Canadians may take pride in their country's role as the world's biggest fertiliser producer, (through the Potash Corporation of Saskatchewan), the world's third biggest exporter of iron ore,[54] the premier refiner of cadmium and the third biggest producer of magnesium.[55]

However, few should be able to rest easy knowing that, after Russia, Canada's mines spew out more deadly asbestos than any other country or that the Canadian government is using the World Trade Organisation (WTO) to override bans on promoting and exporting this deadly substance to other countries, particularly "developing" countries.[56] Canada is also the biggest global provider of uranium, accounting for one third of world supply from Cameco's mines in Saskatchewan.[57]

While the country's technical experts in mining have developed their fair share of innovatory anti-pollution devices, including Inco's oxygen flash smelting and its cyanide detoxification systems, these technical fixes have tended to be applied at the "end of the pipe"—not at the mining, tailings or overburden[v] treatment stages. More characteristically, Canadian companies have substituted one problem for another. The solution exchange-electro-winning (SE-EW) of copper and heap leaching of gold, still depend on destructive open-pit mining, and create both chemical and solid wastes.[58] Alcan's "red mud stacking" of bauxite wastes in Jamaica *"may be swapping one pollution problem (solution leakage from slurry reservoirs) for another—dust pollution from drying red mud sludge with a high caustic soda content"*.[59]

Canadian mines deliver substantial proportions of the world's key base metals: nickel, zinc, lead and copper. When this is added to the part played by overseas mining and the strategic and economic importance of Canadian-owned smelters and refining facilities it becomes clear that the world economy depends heavily on the Canadian mining industry.

[v] The surface soil and rock material found above a mineable deposit.

A right royal picnic

CLAIMING ROYALTIES on the value of mined products has usually been considered exclusive to governments. But, as privatisation and deregulation of the minerals sector takes hold globally, so several Canadian investors have started buying into mining projects by purchasing their own "net smelter royalties" (NSR) in other company's mined product. This financial support entitles them to a share in profits when the market price rises above an agreed level. Companies now involved in providing this form of financing include Royal Gold at the South Pipeline project, which is operated by Canada's Placer Dome with Rio Tinto as a junior partner. This mine trespasses on the Western Shoshone territory of Newe Segobia (Nevada).[47]

By far the biggest of them are Franco-Nevada, and its junior partner, Euro-Nevada, both of which were set up by Seymour Schulich, a financial speculator. Schulich began by taking a royalty stake in Barrick's Goldstrike "property", also in Newe Segobia. The investment was soon to deliver sparkling dividends, enabling his two companies to diversify into oil, gas, copper, nickel, uranium and platinum group metals.

They grabbed stakes in projects throughout North America, in Anglo American's Bushveld operations in South Africa, a 4.1% interest in Falcondo (Falconbridge's ferronickel plant in the Domican Republic), and a 3%–net smelter royalty in the Mount Muro gold mine in Kalimantan, Indonesia.[48] This project, operated by Aurora of Australia,[49] has been criticised by NGOs in both Indonesia and Australia for its flagrant failure to observe traditional adat[iv] and pay adequate compensation to local people affected by their operations.

Franco-Nevada also holds a small NSR in the important Cerro San Pedro project near San Luis Potosi, Mexico, now operated by Cambior Inc, and a similar NSR on two exploration prospects in Guyane ("French" Guiana). These are Haute-Mana operated by Canadian junior, Franc-Or, and St-Pierre, operated by the big US gold producer, Homestake. It also has an equivalent NSR on the Mara Rosa gold-silver deposit 220 km north of Brasilia, Brazil operated by Metallica Resources.[50]

Now the world's largest publicly-quoted precious metals royalties company,[51] Franco-Nevada's most significant coups may prove to be the 9.25% net profits interest in the fabled Voisey's Bay, Labrador, nickel/cobalt project, acquired in early 1999[52] when the company bought a direct 37% interest in Inco's Voisey's Bay Nickel subsidiary;[53] and the 9.55 equity interest in Aber Resources purchased around the same time—giving the company a foothold in the Diavik diamond project on Dene territory in the North West Territories (NWT).

[iv] Adat is the generic term in Indonesia for the unwritten legal codes of indigenous societies.

Robert "Toxic Bob" Friedland

ROBERT FRIEDLAND, also known as "Toxic Bob", is a 49-year old Canadian, who after following an alternative lifestyle in his youth[19] has today become one of the world's most successful and notorious junior mining entrepreneurs. He launched his first minerals venture, Galactic Resources, in 1981, a "shell company" registered on the Vancouver's stock exchange. The company's showpiece was Summitville, a cyanide heap-leach[i] gold project in the state of Colorado, USA. The mine was partly financed by loans from the Bank of America. Built half way up a mountain in mid-winter and opened in record time in 1985, the liners on which the ore was piled for processing began stretching and collapsing almost immediately. Cyanide solution leached out from the pads and—worse—acidic wastes laced with heavy metals cascaded into nearby rivers and creeks. Extraction was halted in 1991 but further processing continued until 1992, when the mine was closed by the US Environmental Protection Agency (EPA). Summitville, the operating company, was declared bankrupt that year: its parent Galactic followed suit in 1993.[20]

The US EPA has paid around US$50,000 a day just to contain the cocktail of heavy metals and cyanide wastes, while final clean-up costs will probably exceed US$100 million, mostly of taxpayers' money.[21] Friedland quit all his posts at Galactic in 1990 and later, with the EPA in hot pursuit, fled the USA altogether. Although in 1996 trustees for the bankrupt Summitville company pleaded guilty to no less than 40 felony counts, for which they were fined the maximum US$20 million penalty), attempts to make Friedland pay up have so far failed. He remains a fugitive.



SOURCE: SYDNEY MORNING HERALD 11 APRIL 1997

Friedland's next ventures were primarily funded from Canada through his main investment vehicle, the Vancover-based Ivanhoe Capital Corporation. He also used Vengold in Venezuela, while in Guyana he bought his way into Golden Star Resources (GSR) at a bargain price. This junior Canadian company had a stake with Placer Dome in the country's biggest gold deposit, at Omai, on the Essequibo River. Soon GSR sealed a deal with then-respected Quebecois company Cambior, and the Guyana government, as well as the World Bank and Canadian Export Development Corporation (EDC), who were providing political risk insurance. According to GSR, Friedland sold all his shares in the company in 1994[22] although his brother and confidante, Eric, continued in an executive role. Friedland's claimed withdrawal was fortuitous in preceding the 1995 tailings dam collapse that released millions of tonnes of diluted cyanide and heavy metals into the country's main river. *(see Guyana, page 33)*.

One year later, Friedland's Diamond Fields Resources (DFR) struck rich in Labrador with the discovery of the huge Voisey's Bay polymetallic deposit on Innu and Inuit territory. Soon Friedland arranged a C$4.3 billion (US$2.9 billion) take-over of DFR by Inco, in exchange for Inco shares worth more than US$500 million, making him the biggest single shareholder in the world's biggest nickel mining company.[23]

Mercenary mining

After the Inco take-over, Friedland created another company, DiamondWorks. Its main interest is now the lucrative Koidu diamond field in Sierra Leone. Originally acquired by Friedland in 1994, the deposit was later overrun by anti-government forces. In early 1996 the notorious South African private army, Executive Outcomes, teamed up with a company called Branch Energy to recapture Koidu and hand it over to DiamondWorks. In the process, civilians were killed and the involvement of foreign military adventurers in one of the world's most beleaguered countries deepened.

There are strong corporate links between Friedland's DiamondWorks and Branch Energy.[24] Branch Energy is also corporately linked to another mercenary group, the notorious Sandline, which went on to offer its services to the Papua New Guinea government, to quash the Bougainville independence movement[25] and support the shaky Sierra Leone government in the civil conflict of 1997.

Ivanhoe rides roughshod

After a meeting with the now-discredited Indonesian tycoon, Johanes Kotjo, in 1995, Friedland decided to move his business empire to Singapore. Friedland began trying to take over the highly promising Bakyrchik gold joint venture at Vasilkovskoye in Kazakhstan, through a company called First Dynasty, in which major Canadian miner Teck also became a partner.[26]

In Indonesia he sealed a deal with one of Indonesia's biggest mining companies, the nickel and gold mining company PT Aneka Tambang (ANTAM), which began to be privatised in 1996. First Dynasty gained access to the producing Gunung Pongkor gold/silver mine and all that company's related mineral concessions in West Java, while ANTAM received shares worth US$120-145 million in

[i] A technique whereby gold ore is piled on impermeable plastic sheeting and the gold extracted by spraying with a liquid cyanide compound.

First Dynasty and the right to appoint two directors to the board.[27]

ANTAM's reputation, however, has not improved in its two years association with Friedland. Five miners died at Gunung Ponkgor in October 1997 when a shaft collapsed. Villagers living on the island of Hauruku, in central Indonesia, have also filed numerous complaints about the pollution of the Wai Ira River by ANTAM.[28] Meanwhile the Friedland cohorts had also entered Vietnam, China, Mongolia, Burma,[29] West Papua, Tasmania and Fiji. Friedland's holding company, Indochina Goldfields Ltd acquired a 17% stake in Fiji's Emperor Gold Mines which is itself notorious for its disregard of its workforce, land rights and the environment.[30]

Indochina

By this time Indochina Goldfields (IGL) was Friedland's main mining vehicle. After its first public flotation and registration on the Toronto Stock Exchange (TSE) in 1996, Friedland owned 38.2% of IGL.[31] He also persuaded two mining heavyweights—the Canadian company, Teck and Japan's huge Sumitomo, the world's largest copper trader, to invest.[32]

Despite Friedland's appalling record, IGL's 1996 public offering was underwritten by a raft of leading Canadian brokerage firms, including First Marathon Securities. Friedland's genius for drawing ostensibly respectable financiers into his manoeuvres was aptly demonstrated when, in the two years before the offering, five employees of First Marathon were invited to participate in a series of private placements, enabling them to secure IGL stock at heavily discounted prices. Allegedly one broker, Robert Hartkinson, invested over one and a quarter million dollars in the deal at up to C$5 (US$3.4) a share.[33] When IGL went public, with shares issued at three times this value (C$15 (US$10) per share), Hartkinson and his colleagues are said to have made millions. Friedland himself loaned C$3 million (US$2 million) to IGL in February 1994 for "general corporate purposes". Later that year he was repaid with 16.78 million shares in the company, valued then at only C$0.25 (US$0.17) a share. In 1996 their value shot up to nearly C$186 million (US$126 million)—a paper profit for Friedland of more than C$180 million (US$122 million).

IGL also secured a 50% stake in the Monywa copper project in Burma,[34] inherited from Ivanhoe Myanmar holdings.[35] Capital expenditure of C$4.36 million on the mineral concession was paid for with five million IGL shares, whose value has since climbed more than tenfold.

The over-reacher?

Prerequisites for the emergence of Friedland over the past decade have included the erosion of government investments in mining and the World Bank's Structural Adjustment programmes, which have enforced a fatal weakening in state regulation of the industry in many vulnerable debt-laden, yet minerally-prosperous countries.

But Friedland didn't just take advantage of these changes: he also helped engineer them. It is likely that the junior venture capital phenomenon would be a different—certainly lesser—beast, without his stock promotions during the late 1980's. The flotation of Golden Star Resources, for example, was the most important single offering on the Vancouver Stock Exchange in 1993, raking in more than C$30 million (US$20 million).[36]

Friedland stands out for his readiness to play a critical role, in territories where political conflict over resources is at its worst (Indonesia, West Papua, Bougainville, Sierra Leone, Burma). He has gone beyond pouncing on undervalued or precarious companies and prospects: in the case of Bakyrchik, he was even willing to stand in keen competition with some major mining interests. He has been able to count on complacency or complicity from his backers, whether at home or abroad. Nowhere is this better illustrated than in his exploits in Burma.

When the Burmese military regime, SLORC, began offering large stakes in the country's mineral resources to outside interests in 1995, Canadian juniors were first off the block. Two thirds of the initial sixteen mineral concessions were taken by Canadian juniors, of which no less than eight were controlled by Friedland's Ivanhoe Myanmar. By late 1998, six such juniors—Pacarc, East Asia Gold Corporation, Palmer Resources, Leeward Capital Corporation, Mindoro Resources and International Panorama Resources were still actively pursuing their "interests" in the country.[37] In mid-1999, Friedland renamed IGL as Ivanhoe Mines.

The Monywa project is now at the heart of Friedland's empire. Output from the Monywa copper mine is currently running slightly ahead of schedule, allegedly at some of the lowest operating costs of any such mine in the world.[38] In 1998, however, local people reported the contamination of local water resources. There is no doubt that this mine lends more credibility to the infamous military regime—a 50% partner in Monywa—than any other mineral project. It pays a 3-5% royalty directly to the government and is destined to be one of the country's biggest single foreign exchange earners. The SLORC has already benefited from selling Friedland further extensive mineral rights in Burma.[39] Friedland has boasted in turn that his operations could generate at least an extra 100,000 tonnes of copper per year[40]—to add to what is already being sold to the mine's partners Marubeni and Sumitomo in Japan, and customers in Hong Kong, Thailand, Saudi Arabia, Malaysia, Korea and Pakistan.[41] The project falls firmly within the category of Burmese investment projects currently condemned by the ILO and which, were it operated by a US company, would probably make it subject to legal action in the USA.[42]

Despite Friedland's notoriety, the Canadian Government did nothing to stop IGL's initial entry into Burma. Indeed in 1997 Friedland was able to boast that

> *"… in 1996 representatives of the company met with officials of the Canadian government in Ottawa [and] at no time did the ...government advise us against investing in Myanmar [Burma] or attempt to dissuade us from doing business in the country".*[43]

Equally important, the Canadian authorities allowed Friedland to relocate to Singapore without any investigation of the deals that allowed IGL—and its investment partners—to extend their destructive and exploitative reach throughout the Asia-Pacific region. Then, in 1998, a Canadian court refused the US EPA permission to indict Friedland for the Summitville disaster—the debacle that launched him into mining in the first place.

Alcan conflicting with Adivasis in India [67]

SIXTY THOUSAND Indigenous Indians (Adivasis), along with their habitat, are currently threatened by a number of multinational companies, led by Alcan in joint venture with TISCO (the Tata group of India), Norsk Hydro of Norway and Indal, an Alcan subsidiary. The Adivasis live in the Rayagada district of Orissa, at the heart of the country's "tribal belt", a region occupied by the largest number of tropical forest dwellers, anywhere in the world.

India has around 10% of estimated world bauxite resources, much of it concentrated in Orissa, on the Baphlimali Parbat plateau. In 1994, a study team concluded that mining the ore—mainly to be found in deposits at Sijurmalli and Kuturmali—would result in the direct or indirect displacement of 60,000 people from about one hundred villages, and would cause considerable ecological destruction.

Resistance to the project mounted dramatically during January 1998. Police baton-charged children, women and men who had erected a roadblock in the village of Kucheipadar, arresting several people, including young workers from the Oriya voluntary organisation, Agragamee. Goondahs (thugs) allegedly employed by local representatives of the companies, were accused of inciting conflict between the police and tribal residents, leading to false arrests, beatings and illegal imprisonment.

Contintental Resources of Montreal has also embarked upon a feasibility study of the Gandhamardan bauxite deposits in Orissa, with an option to mine, linked to a possible refinery and 225,000 tonnes/year smelter.

Bauxite

There is no bauxite, the raw material for aluminium, in Canada itself. This mineral is found almost exclusively in a tropical belt encompassing some of the most important remaining rainforests in the world. Alcan (the Aluminium Company of Canada), a company that is almost synonymous with aluminium, is the world's second biggest exploiter of bauxite; its current plans to enlarge capacity are second only to those of Australia.[60] To achieve this, Canadian provinces are now competing with each other to offer the cheapest source of hydropower[61]—the most critical factor in transforming bauxite into aluminium profitably.[vi] This has already had a grave social cost. In 1999, First Peoples' organisations took Alcan, along with the British Colombia and federal governments, to court, suing them for damages caused by the longstanding pollution and land-destruction caused by Alcan's Kemano smelter.[62]

Alcan prides itself on being "the most international of aluminium companies" with operations in thirty countries.[63] In the Brazilian Amazon, it holds 10% of the Alumar consortium (headed by the US company Alcoa), using power from the Tucurui hydro scheme, which has itself been heavily criticised by indigenous peoples' organisations and environmentalists.[64]

The company mines bauxite in Malaysia[65] and Jamaica, and is expanding both in Ghana (where it recently acquired 80% of the Ghana Bauxite company) and in Australia (in joint venture with Rio Tinto/Comalco).[66] In India, the company operates a fully integrated bauxite-to-aluminium complex and in 1999 won control of Indal (India Aluminium Company), the third largest aluminium producer in the country. Indal is now concentrating its operations, both mining and refining, in Orissa. This represents potentially the worst threat to rainforest dwelling communities of any new Canadian-managed mine project (*see feature on 'Alcan', left)*.

Nickel

Inco, the world's leading exploiter of nickel, has recently fallen on hard times. The company's share value fell dramatically and its debts piled up, as the market price for nickel went almost through the floor. Since then, cutbacks on capacity and jobs within Canada (Inco closed seven mines in Sudbury, Ontario)[68] have helped rally the market.[69] This encouraged Falconbridge to invest C$25 million (US$17 million) in its Doniambo smelter in Kanaky (New Caledonia),[70] where it has a joint venture with Kanak-run enterprises, concerned to wrest further control of the country's mineral resources from French colonial hands. Inco also seemed optimistic that it would proceed with exploitation of the island's Goro deposit, using controversial high pressure acid leaching technology, and possibly disposing of wastes by submarine tailings disposal (STD).[71]

The acid leaching process was first developed on a mine in Cuba now operated by Sherrit International Corp. (Canada). Sherrit has flown a flag of dubious anti-imperialism by continuing to produce nickel from its 50%-owned Moa Bay project, in the teeth of US sanctions against companies dealing with Cuba.[72]

But these projects are small beer compared with the two biggest putative expansion projects under Canadian control: Voisey's Bay in Labrador, and Bahomotefe, in Sulawesi, Indonesia. The former, allegedly the world's biggest untapped nickel deposit, is currently stalled, not only due to market uncertainties, but because of a continuing three-cornered fight over land rights and power sources between Inco; the provincial government of Newfoundland (which includes Labrador); and the indigenous owners of Voisey's Bay, the Inuit and Innu. Inco's Indonesian ventures also face accusations of social and environmental depredation *(see Indonesia, page 71)*. In both these cases, it is the fears and aspirations of the original inhabitants, which risk being ignored and betrayed, as governments and company, strive to work out a deal.

Zinc

The world's largest producer of zinc is the Canadian company Cominco (40.4% owned by Teck)[73] with more than 10% of world output in 1996. In the same year, Noranda came second in the world league tables with 9%.[74]

But there is also significant junior interest overseas. Afri-Ore has a 696 square kilometre prospecting permit in Congo-Brazzaville, which includes the high-grade lead-zinc deposit at Yangsa-Koubanza. Aurora Gold Corp. along with High Marsh Holdings Ltd. has several properties in the Zone des Domes region of Tunisia,[75] while Breakwater operates a mine in Honduras.[76] Solitario Resources is in a 40/60 joint venture with Cominco in Bougara, northern Peru.[77]

[vi] The process of smelting bauxite into aluminium requires an estimated 13-18 kilowatt hours of electricity per kilogram of metal ingot produced.

In 1997, nearly one sixth of world zinc consumption was provided by sources within Canada. But Noranda and Cominco have major exploration programmes in the USA, Mexico, Argentina and Brazil.[78] They also hold significant shares in mines in Peru, currently the worlds' fourth biggest producer of zinc.[79] This is the location of the world's most ambitious and costly projected mine, the Antamina copper-zinc project which is situated in the high Andes, 380km northeast of the Peruvian capital Lima. By the end of 1999, Antamina will be owned a third each (33.73%) by Noranda and Rio Algom, with Teck holding 12.5% and Mitsubishi (Japan) 10%.[80]

Between them Cominco, Teck, Noranda and Falconbridge will probably smelt and refine the majority of this ore on Canadian soil. However, Cominco's 82%-owned Peruvian refinery at Cajamarquilla (bought with Marubeni of Japan in 1996) is scheduled to deliver more than a quarter of a million additional tonnes around the turn of the century.[81] Much of the feedstock for Cajamarquilla will be mined from the San Gregorio mine, operated by El Brocal, a company partly-owned by Cominco *(see feature 'Protests in Peru', right)*.

Copper

Canada is the world's third biggest producer of copper after Chile and the USA, supplying 6.2% of world market requirements.[83] In mid 1999 Canada's Falconbridge, Minorco (part of the UK-based Anglo American Corporation)—each with a 44% share—and Mitsui of Japan started up Latin America's biggest new mine. Situated in northern Chile—a country with which the Canadian government last year concluded an important trade agreement on *"the sustainable (sic) development of minerals"*.[84] Collahuasi is scheduled to produce 250,000 tonnes of copper a year, at lower than average costs, over its first five years.[85]

Cominco's 47.5% owned Sociedad Minera Pudahel of Chile (along with Chilean Empresa de Mineria) is one of the world's biggest employers of solvent exchange electro-winning technology[86] [vii] and in 1998 delivered around 70,000 tonnes of copper by this method from its Quebrada Blanca mine.

However, the implosion of the copper price over the past few years has resulted in many closures and delays. One casualty is the Cerro Colorado project in Panama. Panacobre *(see feature 'A serious attack on indigenous territories', right)*, a subsidiary of Canada's titanium dioxide company, Tiomin, last year said it would bring the mine into production, only if the copper price rose to US$1.1.5 per pound, and stayed at that level for three months.[87] Since then it has optioned "ownership" of the deposit to Aur Resources—in order to fund its own Kwale mineral sands project in Kenya.[88]

One of the world's largest remaining sources of unexploited copper and cobalt is the Democratic Republic of Congo.[90] Because of "security" and "logistics" problems during recent civil conflict, virtually all Canadian companies have suspended or slowed operations but remain in the best position to resume them later. The players include Tenke Mining,[91] which signed a buy-in agreement with BHP of Australia in mid-1999,[92] International Panorama Resources[93] and Caledonian Mining which has signed a joint venture agreement with the Congolese Sodimco to exploit the 47.5 million tonnes/ore copper and cobalt resource of Lubembe north.

Elsewhere Teck has a finance deal with Western Copper Holdings Ltd at the El Salvador prospect in Mexico's Zacatecas state.[94]

[vii] The use of chemicals and electrolysis to refine copper while avoiding the conventional smelting process.

Protests in Peru: violating rights in Oeru

THE INDIGENOUS Vicco community comprises 3,500 mostly cattle-ranching landowners. In late 1998, 250 representatives demonstrated at the Ministry of Mines and Energy in the capital, Lima, demanding an immediate halt to the purloining of 2,904 hectares of land which the government had priced at a mere US$4 per hectare. *"The problem is not the amount of money"* declared community leader and president of Frente Ecologica Altoandino, Miguel Palacin, *"but rather that this is violating our right as legitimate owners of the land to freely negotiate the way in which it will be used"*. This is the first time that article 130 of the Peruvian General Mining law, allowing the government to appropriate indigenous territory, has been challenged within the country. Peru has seen the most dramatic increase in mineral exploration permitting of any Latin American country over the past seven years. Territory opened for prospecting has rocketed from three million to 20.3 million hectares, affecting an estimated 2000 communities throughout the country.[82]

A serious attack on indigenous territories [89]

LAST YEAR Javier Romero, logistics director of the Panacobre mining company, claimed that *"the local population realises that, if the mining sector goes, they will be without (sic)"*. He was referring to the Ngobe-Bugle indigenous land holders within the comarca (indigenous domain) that includes the world-class Cerro Colorado copper mountain. But the communities have vigorously contested this assumption for many years, beginning in the early eighties when they opposed the entry of Canada's Texasgulf onto their lands. In October 1996 representatives of the 126,000 strong community marched in protest 440 km. to Panama City and, a month later, other members undertook a lengthy hunger strike, stating unequivocally that the granting of mineral concessions was *"a serious attack on the conservation of the indigenous territories"*. Teck and Canadian junior Adrian Resources also have a joint venture at Petaquilla, the other world-class Panamanian copper deposit; this was put on hold for a year in mid-1998.

Gold: the global rush

Canada is the world's fourth largest producer of gold from its domestic mines after South Africa, the USA and Australia.[95] The country's larger mining companies participate in some of the world's biggest existing or putative gold projects. Most global exploration expenditure (55.1% in 1998[96]) continues being directed towards gold deposits, and Placer Dome distinguished itself as the world's third biggest spender on exploration during 1997.[97] But, as the price of bullion went down and criticisms of its operations grew louder and stronger during 1998, Placer cut back on this expenditure; in mid-1999 it announced that it was closing exploration offices in Manila, Jakarta, Papua New Guinea and Venezuela.[98]

Barrick, Canada's biggest gold miner, has the world's largest gold "hedging programme"[viii] with forward sales of more than 11 million ounces of gold, at a minimum US$385 per ounce.[99] It also benefits from low costs at several mines. These include the Bulyanhulu mine in Tanzania, newly acquired from another Canadian firm, Sutton Resources *(see feature 'Buried alive: the Bulanhulu atrocity', right)*,[100] the Pascua/Lama "property" which straddles Chile and Argentina, and the world-class Goldstrike in Nevada which is projected to deliver more than two million ounces of gold in 1999, at a cost of US$135 per ounce. But even this impressive low cost record is likely to be broken by the company's new Pierina mine, near the mountain climbing and holiday town of Huaraz, in the high Andes of Peru. The mining costs here, the company claims, will initially be only US$45 per ounce (one ounce=approx. 28 grammes), thanks to an astonishing grade of 25 grammes per tonne.[101] Barrick is a "dedicated" gold producer whose most important investments are in temperate areas. In 1998 it put its African "rainforest" projects—in Mali, Senegal and DR Congo—into a joint venture managed by AngloGold Ltd of South Africa.

Placer Dome is an important copper miner, but it is gold mining which it is most closely associated with. It was Placer that started drilling Guyana's ill-fated Omai site, along with Golden Star Resources in the late eighties.[104] Placer withdrew in 1999 from the controversial Las Cristinas venture in eastern Venezuela, as well as from Costa Rica, where it met determined protest, but its exploits in Papua New Guinea and the Philippines *(see The Philippines, page 59)* have given it an unenviable global notoriety *(see feature 'Placer Dome in Papua New Guinea', below)*.

[viii] "Hedging" involves pre selling future production at fixed prices.

Placer Dome in Papua New Guinea

Risking peoples' lives

PLACER'S 80%-OWNED Misima gold mine lies on Misima Island, 190 km. east of the mainland of Papua New Guinea. Insured by Canada's EDC,[105] it opened in May 1989 and was the first tropical mine to employ untried and hazardous submarine tailings disposal (STD) *"because it is cheap"*, concluded a study made for the South Pacific Region Environment Programme (SPREP) the same year. Within weeks of opening, mine wastes were clogging up rivers and creeks and contaminating vital water resources. The government immediately ordered the company to clean up the mess, and roundly condemned Placer for ignoring a compensation agreement with indigenous landowners to build alternative water supply systems.[106]

Much bigger than Misima, the huge Porgera gold mine—managed and 50%–owned by Placer Pacific—opened the following year, 1990. Australian and Papua New Guinean companies, the national and provincial governments and local landowners hold the remaining equity. When the joint venture was initially floated, more than 800,000 shares went directly to the PNG Minister of Finance and his cronies who were later alleged to have sold them at a profit of Aus$1 million (US$636,000). Although local landowners vigorously protested at their lack of equity in the project, they and the Enga provincial government ended up with only 5%.

Located 8,000 feet above sea-level at the luxuriantly-rainforested Mount Waruwarii, Porgera's operations have sparked a catalogue of complaints and condemnation. In August 1994 an explosion, blamed by Placer on a subcontractor, killed 11 workers. It was the worst single occupational mine disaster in the country's history.

Placer dumps its tailings from Porgera directly into the Strickland river after cyanide de-toxification, arguing that seismic and climatic conditions made land-based containment too dangerous. Initial government opposition was quickly quashed as the national council sided with the companies. However the new Environment Minister, Perry Zeipi claimed the mine *"posed a great risk to the lives of the people"*. Over the following five years his forebodings have been confirmed, as the quality of the Strickland river has, according to local users—continually deteriorated, while sedimentation threatens an important sacred site along its course.

The Mineral Policy Institute of Australia published a consultant's report, in December 1995, concluding that nearly 15 million cubic metres of tailings, contaminated with heavy metal sulphides and ferro/ferric cyanide complexes, were still being dumped directly in the Maiapiam river. This is a tributary of the Strickland and part of the entire Fly River system. These levels were well in excess of Australian and PNG standards, rendering the mine at least as bad as Ok Tedi, "and possibly worse". The report claimed that a number of unexplained deaths and illnesses had occurred among local people using the waters. Subsequent company denials have failed to silence critics.

Placer is also associated in Papua New Guinea with Vengold, the corporate vehicle originally used by Robert Friedland to penetrate the Kilometer 88 region of Venezuela.[107] In 1999, Vengold made a successful and canny bid for 19.3% of shares in Lihir Gold Ltd, part of a ploy to enable a junior mining company to control one of the largest gold deposits in the world. The move soon attracted Placer Dome, which bought its own 16.8% stake in Vengold for US$420 million.[108]

The Lihir mine is managed by Rio Tinto. Like Porgera, it dumps its massive wastes—containing two and a third million tonnes of suspended solids last year alone,[109] and including a significant proportion of cyanide and heavy metals—directly into the Pacific, using submarine tailings discharge. In its first full year of operation, the mine has already encountered protests by local landowners and church groups against pollution and the creation of social inequities.

Buried alive: the Bulyanhulu atrocity

In 1995, Sutton Resources of Canada (now owned by Barrick Gold) took over the Kahama gold fields in Tanzania, which were then being worked by thousands of local smallscale miners. The company promptly applied for an order of "permanent injunction" to prevent the miners continuing their operations. The miners successfully petitioned the Tanzanian Attorney General to be cited as co-defendants, since they believed their fundamental rights would be violated.

In August 1996, Sutton moved into Kahama, along with the Tanzanian state mining company, backed by paramilitary police units, even before the courts could hear the case. Under this threat of impending violence, the small-scale miners applied for a temporary injunction to restrain the company. This was promptly granted by Justice McHome, with the comment that *"...even a poor peasant... [should] at least be consulted before a decision affecting his (sic) life is made"*. Immediately, the Attorney General asked the Court of Appeal to rescind the injunction but, before his request was even considered, the state made its move. Amnesty International in its Human Rights report for 1997 recorded the appalling events, which followed:

> *"Over fifty gold miners were killed in what may have been extrajudicial executions during evictions from disputed land in an operation involving the police, regional authorities in Shinyanga and a Canadian mining company. The men were buried alive when the Canadian company, guarded by police, bulldozed smallscale mines in Bulyanhulu, despite on the spot appeals from distraught villagers. The bodies had not been recovered by the end of the year [1996] and criminal investigations appear to have been discontinued".*[102]

In May 1998, Amnesty sent an investigative mission to Tanzania, and urged the government to set up a high-level commission of enquiry into the events of mid-1996. To this day, Amnesty's request continues to be rejected, with the government claiming that there is no evidence that any miner was killed. Indeed, Tanzania's Minister of Energy and Minerals made the ominous declaration to Parliament that the government *"...will remove such people [smallscale miners] without any mercy"*.[103] Sutton Resources has followed the Tanzanian government's line on the massacre. To date, Barrick Gold has made no statement on the affair.[ix]

[ix] With acknowledgement to Dr Tundu Antiphas Lissu and Amnesty International, London, for additional information provided in this section.

Inside Canada

Inexorably each year, more money flows out of Canada into mineral exploration and development overseas than from any other country on the planet. This is a startling reality for a nation of only 25 million people. Hardly any of this derived from direct taxation; instead a vast proportion depends on savings, pension funds and equity purchases made by Canadian citizens either in companies registered on one or more of Canada's four main stock exchanges or its commercial banks.

The Canadian Government and ordinary Canadians bear a heavy responsibility for the Canadian industry's appalling record in destructive exploration and mining overseas *(see feature 'How Canada gives carte blanche to the mining industry', page 19)*. Some of the better known cases outlined in this report have already alerted Canadian activists and NGOs to the damage caused by Canadian companies in Guyana, Sierra Leone, the Philippines, Papua New Guinea, Indonesia, and Venezuela. Hopefully they—and others—will now be concerned to prevent similar devastation in territories currently under prospect: Burma, French Guiana, Tanzania, Argentina, Panama and Kazakhstan among them. Unfortunately less attention has so far been given to the political implications of this mineralogical "diaspora" or its financial engines. Is it morally justifiable for a "developed" nation to dominate a major global industry, especially when it inevitably requires depleting, or buying cheap, the resource capital of so many "lesser developed countries"? Does Canada protect citizens guilty of misdemeanours at foreign mines? And to what extent is the "Canadianisation" of mining across the planet a result of legal restrictions placed on domestic mining and exploration, or opposition to specific projects by Canadian citizens?

The myth of mining flight: why go overseas when you can do as much at home?

There is a false impression that Canadian mining companies have been abandoning domestic mining and moving en bloc overseas, primarily in order to escape higher standards at home. It is clearly true that many Canadian mining companies have expanded overseas. They take advantage of the greater available information of promising geology and the installation of investment incentives and liberalised mining regimes. There is also anecdotal evidence that certain companies have targeted the generic "South" in order to avoid the threat of punitive legislation at home (see Guyana case study). Inco's massive forays into Indonesian Sulawesi thirty years ago were also undoubtedly prompted, not just by the availability of huge nickel resources, but also cheap hydropower, the low cost of local labour and the growing clamour at home to cut its huge sulphur emissions.[110]

The industry's key target, however, remains the homeland—or more specifically the hinterlands. Canadian companies continue to spend a greater share of exploration and development funds within Canada than anywhere else in the world. Overall domestic mineral exploration investment has more than doubled between 1992 and 1996 to over C$945 million (US$643 million), in part due to exploration rushes in Labrador and the Northwest Territories.[111] In 1998 the Metals Economics Group (MEG), based in Vancouver put Canada second, after Australia, among the most attractive of individual countries for exploration investment.[112] Moreover, the financial burdens of North American mining are not usually onerous. The Metals Economics Group estimates that 42% of gold production in Canada has lower than average industry costs.[113] Indeed Placer/Rio Tinto's Cortez mine in Nevada, USA, has the cheapest gold operating costs of any major mine anywhere—at US$58 per ounce.[114] The second best performer on the Toronto Stock Exchange in 1998 was Goldcorp, which owns just two mines—one in Canada and

the other in the USA.[115] Some industry critics even suggest that one of the effects of the liberalised mining regulation offered to the companies overseas is that these are used by the domestic industry as a leverage to keep standards in Canada low, in order—the companies claim—to maintain international competitiveness.

When junior companies started venturing abroad in the eighties, they largely concentrated on locations in the USA, where standards are at least the equal of Canada, and other locations close to home and main markets. This included Mexico, the Caribbean, and Central and South America. It was not until the gold rush of the early nineties that the rest of the world conspicuously became the juniors' oyster. The picture that emerges is one of an industry intent on securing raw materials at the cheapest entry price, preferably—but not necessarily—close to home, in order to support its well-established and profitable downstream processing industry and sell to the biggest global markets.[116] At the same time Canada's mining companies are also very highly motivated, adaptable and carry less emotive "baggage" than US, British or South African mining companies. As a Canadian diplomat somewhat disingenuously put it:

> *"There isn't any politics attached to [Canadian] business. There are some disadvantages to not having a history here, but there are also lots of advantages".*[117]

It is tempting to suggest that, were investing within Canada to be made even more attractive and barriers imposed on investment overseas, the worst aspects of the country's global mining project could be abated. Certainly tax write-offs for foreign exploration and "development" expenses could be abolished[118] and restrictions placed on the repatriation of profits. However, net income tax paid by mining companies in Canada is already lower than in some parts of Australia and in Chile.[119] In any case it would be highly reprehensible to promote any measure that reduced even further the limited environmental and social accountability within Canada itself.

Environmental refugees?

Environmental standards within Canada are neither the world's toughest, nor the most rigorously applied, and differ considerably from province to province.[120] Professor Alyson Warhurst has commented: *"At a federal level, the policy is one of co-operatively working with industry to achieve environmental management goals rather than prosecution".*[121] For example, accelerated capital depreciation costs are allowed on the purchase of pollution control equipment.[x]

Even though the country's Metal Mining Liquid Effluent Register (MMLER) appears to impose high standards of effluent control from mines, it can be varied (that is, effectively ignored) in specific cases[122] while some of its emission thresholds are less stringent than in some "developing" countries, including Papua New Guinea and the Philippines.[123] Little wonder then that there is opposition from the industry to attempts to impose stronger, unified federal standards, backed by legal penalties, as opposed to "self regulation" by bodies like the International Council on Metals and the Environment (ICME)[xi]. Another voluntary initiative is the Accelerated Reduction/Elimination of Toxics (ARET), launched in 1994 to reduce the output of 117 toxic substances from all industry sources. Its targets, however, according to the Canadian Institute for Business and the Environment (CIBE) have been *"soft, unverified, and questionable as to how they were achieved".*[124] Only two out of five members of the Canadian Aluminium Industry Association had, as of 1998, even signed up to ARET.[125] In a survey, carried out by the Pembina Institute on the implementation of VCR (Voluntary Challenge and Registry) most of the 351 work places scrutinised *"did not include many of the actions required to establish a framework to ensure that [they]...go beyond investment as usual"*. Inco and BC Hydro are among the major companies specifically singled out for criticism.[126]

Mining indigenous lands and territories

There is cause for grave concern at the impacts of Canadian companies upon indigenous peoples, particularly in tropical regions. One estimate made in 1996 was that up to 90% of gold production and around 60% of copper would, by the year 2020, probably derive from indigenous territory world-wide.[127] If more recent mine projections are now included,[128] then Canadian companies could be responsible for more than half the gold being hacked out of Indigenous territory over the next two decades, along with similar proportions of nickel, lead and zinc. Only copper among the major metals is likely to have a lesser impact upon indigenous peoples in the future, while that of diamonds will substantially increase, possibly to a fifth of global output. In many instances, these projects will require onslaughts upon the territory of indigenous peoples who have not yet experienced big mines, or had the opportunity to properly evaluate their consequences. There might be more reason to be

"Treaties don't stop people from coming on our land to look for resources. What if we don't want a mine at all? The mining company says it's their right to make money. It's our right to make protests and blockades."

—"Between a Rock and a Hard Place: Aboriginal Communities and Mining", September, 1999, Innu Nation/MiningWatch Canada

[x] Tax allowances of up to 100% on the full value of pollution control equipment.

[xi] ICME is a Canadian-based, industry-funded organisation that represents industry concerns on the environment. It is working with the World Bank on voluntary standard-setting for the mining industry.

sanguine that this right to evaluation and respect for indigenous rights would occur overseas, were the invasive companies already respecting Native demands and values in Canada itself.

While there are exceptions to prove the rule, such as Falconbridge's work programme with the Inuit community at its Raglan mine in northern Quebec,[129] experience overall suggests only token acknowledgement of indigenous rights. This is particularly true of the biggest new ventures impacting on native groups—Inco's proposed mining in Voisey's Bay and the new diamond exploitation in the North West Territories—which one expert commentator has called the diamond industry's *"most important event in 1998"*.[130]

Both Rio Tinto and Canadian junior partner, Aber Resources have faced strident criticisms over their intentions to mine at Diavik. In June 1999, the Dogrib Treaty 11 Council[xii] roundly condemned the mine's comprehensive study report[131] claiming that the cumulative impact of

[xii] The council of Dogrib tribes covered by one of a series of treaties between the Canadian Colonial Government and the First Nations.

Nishnawbi-Aski Nation and Ontario's living legacy [137]

In February 1997, the Ontario Government announced "Lands for Life", a public consultation process on land use planning for Ontario crown lands (within the area of the undertaking). Three planning areas were identified (Boreal West, Boreal East, and Great Lakes-St. Lawrence) and a Round Table for each planning area with representatives from each sector of interest was established. Many First Nations were strongly opposed to the Lands for Life process primarily because of its lack of recognition of treaty and aboriginal rights. Nishnawbe-Aski Nation (NAN) Chiefs nonetheless took the decision to participate in the process by appointing representatives to the Boreal Forest East and West Roundtables. After careful examination of the Lands for Life process, in July 1998 the NAN Chiefs withdrew, citing lack of community consultation and the threat to aboriginal and treaty rights.

In November 1998, NAN launched a procedural motion in court to stop the Lands for Life process again citing a lack of consultation and breach of legislative process. In May 1999 this court proceeding was adjourned pending further community consultation. In February 1999 the Ministry of Natural Resources conducted closed-door meetings with industry and the Partners for Public Lands (a coalition of environmental groups) in an attempt to achieve unity. These secret meetings formed the basis of the Ontario Living Legacy that was announced on March 29, 1999 by Premier Harris and Minister John Snobelen.

Nishnawbe-Aski Nation's main concerns regarding the Living Legacy:

- **The absence of First Nations in the negotiations**, the lack of any further plan for inclusion in future processes and the disrespect conveyed to the NAN people in the land use planning process.
- **Granting of increased tenure rights to the forest and mining industry** that significantly strengthened the resource industries' interests in resources allocated to them.
- **The planning process was flawed.** All affected parties should have been consulted on how to address the failure of Lands for Life instead of holding secret meetings.
- **The 1999 Ontario Forest Accord and Proposed Land Use Strategy provide no substantive role for First Nations in the stewardship of Ontario's resources.** There are no specific measures by which First Nations' environmental, economic, and traditional knowledge can be used to steward and manage the resources of Ontario with the provincial government and other commercial concerns. Other recognized environmental management programs such as the Forest Stewardship Council's Forest Certification Procedures recognize and value traditional knowledge.
- **The 1999 Forest Accord and the Proposed Land Use Strategy directly affect the native communities' well being.** These agreements will adversely affect many of their communities in their social, cultural, and economic well being. New and expanded protected areas and intensive forest operations will be established. High mineral showings were used as a veto for protected areas, and First Nations had no role in setting priorities for protected areas, unlike industry. Furthermore, their ability to use the planning provisions contained within the Ministry's Forest management Planning Manual to protect their important sites and land use areas will be lost because no comparable mechanism exists for protected area identification and management in Ontario. These new protected and intensive use areas will also affect their treaty and aboriginal rights.

Throughout the Lands for Life planning program, NAN was assured by the Ministry of Natural resources that this planning program would not apply to **the far north** (north of 51°). The commitment made in Living Legacy and Forest Accord is to expand forestry and mineral exploration into the far north and identify new protected areas without First Nation input.

Mining and mineral exploration

The Lands for Life and Living Legacy processes have, as a goal, the achievement of greater certainty for resource extraction industries. The mineral industry has made considerable gains through these processes, not the least of which is their ability to conduct mineral exploration unhindered on 88% of the lands in the planning area. Of the 12% which is reserved as protected areas, mineral exploration will nonetheless be allowed in almost half. If a protected area demonstrates a strong mineral showing, it will be removed from the protected area, developed, and then re-designated as a protected area. During the period when the designation is lifted from the land, another area of equal size will be designated a protected area.

NAN does not regret withdrawing from the process at an early stage, and is currently consulting with communities about the next steps forward.

the mine—along with other mines in the NWT—had still not been adequately addressed. It branded Diavik *"a huge experiment"* carrying the risk of damaging water quality, toxicity from acid drainage and disturbing the crucial migration patterns of up to 350,000 caribou.[132]

Recent juridical advances—the creation of the native territory of Nunavut in the far north[133] and the Nisga'a treaty signed last year in British Columbia—offer Canada's First Peoples more opportunity than before to accept or reject certain aspects of mining. But these advances are subordinated to a continuing denial of Aboriginal rights in general. Some mining companies seem to believe that they can come to terms with further "concessions" to the country's original custodians in return for new "rights", such as access to unclaimed Crown land[134] or that they can severely limit the consequences of granting land claims. For several years the industry's defenders have applauded a series of dialogues and meetings between mining companies and native peoples, starting with the 1992 Report on Native Participation in Mining,[135] leading to the Whitehorse Initiative of 1994[xiii] as evidence that the two sides can collaborate to mutual benefit. However, these deliberations seem to have moved little beyond the industry's opening gambit to *"see its opportunities expanded, instead of reduced"*[136] *(see feature 'Nishnawbi-Aski Nation and Ontario's Living Legacy', previous page)*. In any event, there seems to be a total industry inertia, when it comes to applying lessons reluctantly learned from Canada's Aboriginal Peoples to any other indigenous communities world-wide.

The money behind the machines

A trawl of the world's most dubious or destructive mining ventures reveals Australian, British or US examples to rival Canadian "horror stories". What essentially distinguishes Canada from these contenders is the facility with which the country's financial institutions have backed mining as an international project; and—until recently[xiv]—, the absence of concerted opposition to it from the majority of Canadians. The Canadian Government has also played a significant role in promoting mining overseas *(see feature 'How Canada gives carte blanche to the mining industry', opposite page)*.

Until 1997 the majority of money subscribed to Canada's most controversial mining projects was dedicated to exploration, and raised—usually in the form of so-called "venture capital"—mostly on the Vancouver and Toronto stock exchanges. Although these wellsprings have dried up considerably since the Bre-X debacle and fall in gold prices, just over half of the world's mine finance (51%) in 1998 was raised in Canada[141] and around 80% of this on the Toronto Stock Exchange (TSE) alone. In comparison, all Australian exchanges raise only a quarter of the total.[142] In turn, mining accounts for about a quarter of all trading on the TSE.[143] There is no one source of mine finance, however; the bigger a project becomes, the more varied the sources—and resource providers—tend to be. Although corporate cash-flow used to be the key means used by the bigger companies in the industry for new "development", it was hardly ever available to the juniors. It is now also becoming less available to many bigger companies, especially as the size and costs of operations grow.

In general, the most important types of funding are through equity (shares) and project debt or loan. Mine finance totalling C$6.8 billion (US$4.6 billion) was raised in Canada in 1998—a drop from C$8.8 billion (US$6 billion) two years before. But while only 28% of this had been debt finance in 1996, last year the proportion soared to 74%.[144] Both forms of finance come from the well-known commercial (or private) banks, lesser-known chartered banks (such as Rothschilds), investment banks or private investment companies. Institutional investors, primarily pension fund managers and insurance companies, also play an important role. There are also other parties involved in facilitating mining-related transactions that have assumed more importance in Canada than elsewhere, including accountancy firms, corporate lawyers, and brokerages that underwrite the issuance of shares and loans to both small and large companies. Brokers have played a particularly dubious part in questionable mining ventures *(see, for example, feature 'Robert "Toxic Bob" Friedland', pages 10-11)*. The country's biggest underwriter, however, is the commercial bank, RBC Dominion. Nor do the banks eschew equity in mining companies. CIBC—Canada's second largest bank—has recently been purchasing an increasing amount of equity in the companies it helps bring to market.[145]

There is not always a firm division between the two main forms of finance: for example, Sumitomo and Marubeni loaned US$90 million to Friedland's Indochina Goldfields (IGL—now Ivanhoe Mines Ltd) for the start-up of the Monywa copper mine, Burma's single most important new mine. In return the two huge Japanese corporations—both heavily involved in the smelting and marketing of copper—gained access to part of the mine's output. The rest of the finance for the IGL came in the form of equity purchased by Canadians (notably Teck).

The vast Antamina mine is being underwritten by both bankers and the corporate Canadian partners. A consortium of global banks, including Dutch ABN-Amro, the Australian New Zealand Banking group (ANZ) the Bank of Montreal and the CIBC, have pledged US$600 million. An equivalent amount is expected to come from a group of international export-import credit agencies, and the remainder (US$1 billion) in the form of equity raised by the mine's partners. This example illustrates clearly that the term "Canadian mine" can be something of a misnomer. An increasing amount of capital available within the country is in fact sourced from outside, especially from financial service firms and securities markets in the USA.[146] Equally important, the role of domestic commercial banks has been threatened by foreign-owned mutual funds and investment banks, in particular US bank Merrill Lynch.[147] Federal Finance Minister, Paul Martin, imposed a ban in 1999 on prospective mergers between several leading Canadian banks, but nonetheless the sector will probably open further to non-Canadian involvement over the next two years.[148] This will parallel the process by which an increasing number of foreign mining companies have relocated to Canada, in order to profit from capital raised by listing on the country's stock exchanges. These outfits already include Echo Bay, Meridian, Philex Gold, Samax Gold and TVX Gold—all of which have their major assets and management and most of their operations outside Canada.[149]

[xiii] A then unique forum for discussion between the First Nations and some mining companies.

[xiv] Founded in April, 1999, MiningWatch Canada is a pan-Canadian initiative supported by environmental, social justice, Aboriginal and labour organisations from across the country. It is a direct response to industry and government failures to protect the public and the environment from destructive mining practices and to deliver on their sustainability rhetoric. The aims of MiningWatch Canada are to:

§ ensure that mineral development practices are consistent with the goals of sustainable communities and ecological health;
§ strengthen technical and strategic skills within communities and organisations faced with impacts of mineral development;
§ impose appropriate terms and conditions on mining and in some cases prevent the development of projects that would adversely affect areas of ecological, economic and cultural significance; and
§ advocate policies to improve the efficiency and reduce the risks of mineral development.

Much has been made of the ease with which mining juniors, whether home or foreign grown, can turn speculative "finds" into a speculator's dreamscape, by being registered on the Vancouver and Alberta stock exchanges in particular.[150] The shock waves reverberating from the collapse of Bre-X finally forced the country's stock regulators to examine the mechanisms by which dross was being ignominiously metamorphosed into gilt. A Mining Standards Task Force submitted its report in 1998, and some of its recommendations have already been implemented (for example on independent assays of field results, and on standards of technical reporting). In the meantime, the regulators have announced that they are embarking on the stock exchanges *"most substantial realignment in their history"*.[151]

The Toronto Stock Exchange is to become Canada's senior listing exchange.[152] This is an alarming prospect, in view of a recent admission by the TSE's chair that around 800 of the exchange's 1,400 companies *"would not meet the listing requirements of Nasdaq or the NYSE"*, two of the USA's major stock exchanges.[153] Vancouver and Calgary (Alberta) will amalgamate into a national exchange for junior companies—in particular for mining, energy and small technology, while Montreal will become the only options and futures exchange.[154] This is, at best, merely cosmetic surgery. It will hardly curb the influence of Canada's unique army of investment advisors and "independent" mining analysts, who did so much to hype the shabby activities of Bre-X and its backers. It does nothing to undermine the insidious and cultivated relationships between juniors and bigger companies, which have been at the root of so many socially disastrous mining ventures. On the contrary, as one analyst pointed out, big mining companies are increasingly financing juniors directly, in order to carry out exploration, or are buying the smaller concerns outright.[155]

But most importantly, such reform does not challenge the manner in which finance for mine development—as distinct from exploration—may be raised, precisely at the point where projects begin so profoundly to affect peoples' health, their livelihoods, the species around them, and the ecospheres they inhabit.

How Canada gives carte blanche to the mining industry

SEVERAL FACTORS have contributed to Canada's prominence in global mining:

1) a culture of mining;

2) diversity of skills and technical experience;

3) detailed and cultivated knowledge of overseas mineral potential;

4) a perceived political neutrality of Canada by governments overseas;

5) ready availability of mineral finance;

6) Canada's own liberal regime on investment and insurance for mining companies.

The latter facilitates the granting of mineral titles, the purchase and selling of "properties" and dealing in escrowed shares[xv]. Tax rules specifically ease corporate penetration overseas:

1) corporations can deduct interest incurred on borrowing for their foreign subsidiaries;

2) intercorporate dividends are exempt from income tax in Canada;

3) profits generated by subsidiaries in countries with which Canada has a tax treaty can be repatriated free of income tax in Canada itself;

4) overseas exploration and "development" expenses can be deducted from tax, under certain conditions up to 100%;

5) Exploration and development expenses can be "pooled" between companies, protecting profits gained by selling or merging overseas properties against tax, to the tune of the total amount of unclaimed foreign exploration and development expenses

The Canadian government, along with its institutions, also play major roles in supporting the mining "diaspora", through:

1) Multilateral and bilateral trade treaties supporting geological exploration;

2) the role of CIDA (Canadian International Development Association) and the Department of Foreign Affairs and International Trade (DFAIT), as well as the Export Development Corporation (EDC).

CIDA offers a range of services, including aero-magnetic surveying, training of local experts in mining, and the funding of dissemination and translation of neo-liberal mining codes (such as the one for Guinea)

EDC provides political risk insurance to mining projects (starting with Omai, Guyana) and export credit guarantees (which included C$88 million (US$60 million) to the BHP/Inmet Ok Tedi project). According to MiningWatch Canada, EDC is exempt from Canada's Freedom of Information Act and the Environment Assessment Act, because it is a Crown Corporation. They further report that it *"has no environmental or human rights policy"*.[138]

DFAIT arranges meetings on mining at a diplomatic level, to which governments and sometimes NGOs are invited. However, the approaches projected by Canadian policies, according to Montreal-based political scientist, Bonnie Campbell, *"... are actively contributing to the economic marginalisation of certain regions, by denying them access to and control over, the development of their own resources, in ways [which]... would have made [Canada's] own economic development over the last 100 years, simply impossible"*.[139]

Canada's attitude towards mining and other companies investing in Burma *(see feature 'Robert "Toxic Bob" Friedland', pages 10-11)* is characteristically ambivalent. Burma is the only country in the ASEAN (Associaton of South East Asian Nations) that is specifically excluded from Canada's Economic Cooperation Agreement. Canadian companies (such as Friedland's Ivanhoe Mines), however, are not restricted in any way from investing capital in Burma.[140]

[xv] Those held by a third party, such as banks.

Part II

Global trends in mining and the role of international agencies

Recent trends

THE MINING INDUSTRY, as its advocates never tire of telling, is vital to industrialisation because it provides its raw materials and major sources of energy. But growing demands that industrial development meet certain ethical standards, respect human rights and be environmentally "sustainable", both now and for the future, puts pressure on the mining industry that historically it has been completely unable to meet. The mining industry is also under pressure to reduce its costs and maintain its profit margins despite the increasing capital demands of ever larger and larger projects; these pressures have pushed down metal prices and reduced operating margins. Under such conflicting pressures, it is not surprising that the industry's response has been both confusing and confused as it desperately tries to hold on to its old advantages, yet claims new approaches.

This chapter outlines the recent trends and contradictory pressures on the mining industry. Several trends have influenced the global expansion of mining in the last 15 years, in particular, major changes in patterns of national regulation, ownership (including the privatisation of state-owned mining companies) and investment *(for an examination of investment patterns, see Mining the planet, page 6)*.

While this report is not premised on an opposition to all mining, it should be noted that some communities, especially some indigenous peoples, oppose *all* mining in certain areas. The report does, however, seek to focus particular attention on the disproportionate concentration of current investment into the search for gold and diamonds, minerals which are at best marginal to industrial production and which thus belie the industry's social justification for its activities.

Gold mining

Over the last 15 years, a cavalier free market has arisen for speculators and investors alike in mineral exploration, particularly for gold. Gold and diamonds account consistently for more than half the annual expenditure on mining exploration. They are pre-eminent because of their high profitability, although such pre-eminence is also sustained through careful control of the market and their promotion by powerful industry-backed associations, including the World Gold Council. From 1997 to 1999, world economic conditions and the selling of gold reserves by major central banks including those of the UK and Switzerland drove down the price of gold, freezing many projects in forest zones and elsewhere. But an industry lobby, supported particularly by South Africa, the world's main gold producer, succeeded in October 1999 in securing a commitment to halt this process. As a result, the gold price has bounced back from a low in 1999 of US$254 per oz to a high, as of November, of US$324 per oz.[1] Aggressive exploration and mine development will no doubt resume.

In addition, gold and diamonds have remained profitable because of the development of more efficient and cheaper (although often more invasive and environmentally-damaging) techniques of extraction and processing. For gold mining, these include open-pit mines, sub-marine tailings disposal, and separation by cyanide leaching. The relatively short lead-in time from exploration to production and thus profit, the lesser investment required in infrastructure to develop a mine and, perhaps above all, the attractiveness of both gold and diamonds for speculative investors all contribute to their pre-eminence.

In terms of sustainable development, national industrialisation or human rights protection, gold and diamond mining have severe negative implications to which companies, lending institutions and governments seem to be oblivious. *(see Mining impacts, page 28)*.

Open for business

The mining laws of more than 70 countries have been "liberalised" over the last few years to attract greater foreign investment. Whereas states used to regard mining as a strategic national industry and thus exerted majority ownership over it, they now compete with each other in offering private investors various incentives and reduced restrictions, usually at the expense of long-term income potential, thereby weakening state control and influence. The finite nature of the mineral resource might be thought to strengthen the position of mineral rich countries. But in practice, the more pressing a state's problems of foreign debt and trade imbalance are, the stronger position companies and their backers are in to wring concessions, particularly from states increasingly anxious for foreign investment.

The perceived need for foreign investment can lead to competitive pressure among states to offer ever more attractive deals; if governments fail to deliver, companies threaten to withdraw from the country or to downgrade their activities. Thus the package of measures countries offer so as to attract foreign companies vary according to what other countries offer. Recurring elements, however, include stable rights; freedom from government interference or expropriation; stable payment structures; ease of access to mineral deposits; tax breaks and tax holidays; guaranteed rights to move from exploration to mining; reduced payments or share to government; and free repatriation of profits *(see, for example, feature '1995 Philippine mining code', page 58)*.

Privatisation and concentration

The global ascent of neoliberalism and its influence over national mining policy and investment legislation has resulted in the wholesale privatisation of formerly state-owned mining entities. As late as 1993, state-owned companies still controlled 26% of world mining. However World Bank figures indicate that, between 1988 and 1993, US$270 billion had already been generated by the privatisation of state-owned mining entities:[2] a process which continued with the partial privatisation of CVRD (Companhia Vale do Rio Doce) in Brazil and the ongoing break-up of ZCCM (Zambia Consolidated Copper Mines) in Zambia.

This massive sell-off and the increasing capital demands of mining development have been major contributors to the ever increasing concentration of production in the hands of a few transnational mining companies. In 1990, 33% of the value of all Western mining products was owned by 20 companies.[3] By 1993, the top 10 companies alone controlled 28.6% of production. The two largest companies, Anglo American and Rio Tinto, between them by 1997 controlled 18% of the

world's metallic resources and supplied 90% of the world's rough diamonds . Both these UK-based giants have since made further acquisitions. Anglo has been particularly aggressive in its further expansion acquiring parts of the privatised Zambia Consolidated Copper Mines and a 23% stake in Anaconda Mines of Australia.[4] In the key sector of copper, the 10 largest companies in 1992 controlled 61.2% of production and the top 20 companies 79.4%.[5] Mergers in 1999 (between Phelps Dodge and Cyprus Amax and between Asarco and Grupo Mexico) left the top three producers (Codelco of Chile, Phelps Dodge/Cyprus of USA, and Grupo Mexico/Asarco of Mexico) controlling 34% of mined production, 26% of smelter output and 20% of refined output.[6]

Mergers and takeovers of mining companies have been stimulated further by the Asian financial crisis which has reduced demand for metals and investor interest, leaving junior exploration companies and all but the biggest producers more vulnerable to predators. The recent fall in gold prices has also threatened the viability of a number of companies.

The development of a large mine is a long-term and expensive project which now stretches the resources of even large companies. For example, Freeport McMoRan of New Orleans, one of the world's top 10 mining companies,[7] operates the world's single largest gold mine, which is also the third largest copper mine, at Grasberg, West Papua. In 1995, however, it had to take on Rio Tinto as a partner to finance the development of its mine, especially the exploration of a further three million hectares of tropical forest and indigenous peoples' land. Rio Tinto now owns 14% of Freeport.

Large companies frequently collaborate on specific projects. The notorious Ok Tedi copper mine in Papua New Guinea (PNG), for example, which has caused irreparable damage to local river systems and inshore waters, is a cooperative venture involving BHP, the largest Australian miner, Inmet of Canada and the PNG Government.

The fortunes of major companies, despite the distance they like to claim from the more notorious junior (exploration) sector, are increasingly interwoven with them. Many juniors now depend upon substantial backing from larger companies. Chase Resources of Canada, for example, is supported by a 10.7% share holding by BHP, while TVI, another Canadian company, is backed by a 15% share-holding from the larger Echo Bay mines.[8]

But major and junior companies depend on different patterns of financing. The majority of mining capital (80% in 1995) raised by major companies came from internal sources such as shareholders, bonds and special rights issues. In 1994, nearly US$10 billion was raised through share issues; most of the remainder, as in the Freeport case cited above, came through sale of equity. Borrowing made up a further 6%. Juniors by contrast depend much more on speculative investment and high-risk venture capital. As the Bre-X gold fraud case in Indonesia shows *(see Indonesia, page 71)*, Canada has been more receptive to this kind of venture than other mining centres. The demand for high and quick returns on such investment pressures some mining exploration companies to cut corners or adopt more aggressive exploration methods. From 1997, however, investment of any type became much more difficult to obtain as the gold price fell and Asian markets for metals stalled, resulting in the closure of some companies and slow downs on many projects. Even large companies have become increasingly dependent on project loans.

World Bank aid and assistance to TNC miners

The liberalisation and privatisation of mining are often portrayed as in line with free market orthodoxy. Ironically, these processes have required substantial policy intervention and financial subsidies from international agencies including the World Bank. For the countries of the South, the World Bank (and other agencies) has acted as a midwife to the rapid expansion of mining exploration into tropical forests and other fragile ecosystems. Widespread indebtedness among mineral rich countries and their dependence on new and renewed loans from international finance has put the Bank in a strong position to impose its will on them.

The World Bank group consists of five specialised multilateral agencies:

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

The activities of the IBRD and IDA are traditionally directed at government projects, while the IFC and MIGA aim to finance the private sector. The rapid growth of IFC and MIGA in recent years is indicative of the increasing role of transnational corporations and the shift in emphasis within the Bank on financing private investment ventures.

IBRD and IDA loans to mining projects in 1996 stood at US$679.8.million. Despite this substantial and rapidly-rising funding to specific projects, the World Bank's priorities, as far as mining was concerned, on its own admission, lay elsewhere:

> *"In the late 1980s the World Bank (IBRD IDA) shifted its focus away from project financing for non-fuel minerals. Instead, the World Bank today provides financial and technical support to its member countries to enable them to undertake the necessary regulatory and institutional reforms, including privatisation of State-owned mining assets, to establish the conditions to attract private sector finance."*[9]

This strategy effectively directed policy in mineral rich countries to serve the interests of mine investors while at the same time providing hidden subsidies and support to some of the world's richest companies. By 1991, the Bank had supported privatisation of state assets as part of 71 structural adjustment programmes (SAPs) and 43 sectoral adjustment loans worldwide. Privatisation in the mining sector was a priority.[10]

The strategy of mining deregulation was based on World Bank commissioned research. One such example is the World Bank's 1992 Technical paper number 181, Strategies for African Mining. This research was based on the premise that because foreign investment in mining in the South was low and because private foreign direct investment was desirable, a package of legislation and incentives to attract investors had to be identified. Mining companies themselves were asked to identify the changes that would satisfy them, and the results of this clearly biased survey became the foundation of the blueprint for "reforms" which now stretch around the world.

At the same time, direct support for the private sector expanded massively through the IFC and MIGA. These are now the fastest growing sections of the World Bank group. In 1995, IFC loans expanded by 28% and MIGA's by 80%. IFC total commitments at present amount to US$14 billion. Loans specifically to mining projects (excluding cement) in 1996

alone stood at US$643 million. Moreover, IFC calculates that, for every dollar it loaned, it drew in more than US$5 from other investors—up to US$4 billion in total. Overall, private capital flows to developing countries have increased massively from US$25 billion in 1990 to US$90 billion in 1995.[11]

The World Bank established MIGA in response to a key private sector demand for greater security, particularly political risk insurance, for their investments in developing countries. By 1996, MIGA had extended guarantees amounting to US$2.3 billion. In 1996 alone, 22% of all MIGA lending was to mining projects. [12] MIGA funding is notorious for its lax environmental and social standards—it granted insurance cover for the controversial Omai *(see Guyana, page 33)* and Freeport, West Papua, projects. Subsequent evaluation of these projects revealed that MIGA was not operating under the guidelines of other sectors of the World Bank with regard to social and environmental assessment and that it did not devote the necessary time, or have the capacity or specialist staff to adequately conduct such assessments. During 1994-5, MIGA extended US$105 million in cover to new mining projects involving three US companies operating mines in Peru. The three companies, Cyprus Climax Metals, Magma and Newmont, had each been fined for serious breaches of environmental standards at their mines within the United States, yet still passed MIGA's cursory scrutiny.[13] Changes and greater regulation were subsequently promised, but critics see little improvement of standards or restriction in MIGA's backing of potentially environmentally-damaging projects. MIGA and the companies it serves hide behind a cloak of commercial secrecy by refusing to reveal sufficient information for detailed external scrutiny.

Public focus on all parts of the World Bank, including those sectors aimed at private sector finance, is increasing. The result has been the gradual emergence of standards and procedures to increase public accountability. But in response, companies have turned to national export credit agencies, such as Canada's Export Development Corporation, which perform much the same function as MIGA but with less transparency and even less rigorous standards. No doubt they hope by so doing to avoid the intensified scrutiny of mining practice for a little while longer.

Poverty reduction or business promotion?

The stated overarching goal of the World Bank is the "sustainable reduction of poverty", but its whole focus on mineral extraction and the promotion of foreign control within the sector conflicts with this goal. The concentration of IFC loans to mining ventures, for example, has been heavily focused on a handful of "emerging markets" identified as attractive to investors rather than by priority of need. Between 1989 and 1993, five countries received more than half of all IFC loans. Poorer countries especially in sub-Saharan Africa received only 4.3% of IFC loans in 1996; of these, the largest single project was financing for the Sandiola Hill gold project in Mali run by Anglo American, one of the world's richest companies.[14]

The Bank has produced an "informational" video on "*Mining and the Environment*" which is revealing of its priorities. The positive representation of corporate mining and the negative assessment of artisanal mining stand in stark contrast. The video's assessment of the corporate sector stresses *"the significant progress in developing technologies to reduce or prevent environmental damage"* and urges that *"environmentally sustainable development of mineral resources can best be achieved if the roles of governments and of private industry are cooperative rather than confrontational"*. Even though studies and advocates of artisanal mining have shown that, environmental and social problems not withstanding, such mining offers important livelihood opportunities to the rural poor, the Bank's video characterises artisanal mining as destroying

> *"forests and grazing lands, further complicating retention of water and vegetation. The mining camps attract itinerant young men to live without their families. The incidence of drug and alcohol abuse, sexually transmitted diseases, including AIDS, is very high.*[15]

Other research has clearly indicated that national economies that are highly dependent on mining have tended consistently to fall behind in development terms.[16] Academics seek detailed explanations of this seeming anomaly. But the liberalised framework for TNC mining companies promoted by the World Bank, combined with the negative impacts of large-scale mining on the environment, tourism and rural livelihoods, particularly in farming, fisheries and artisanal mining, will certainly entrench these inequalities.

Cleaning up the environment or just the corporate image?

In 1997, the World Bank revised its guidelines for the environmental standards that mining projects seeking Bank support should meet. But instead of following the highest existing international standards, Bank guidelines fall below them on several crucial issues. For instance, there are no guidelines on safety standards for tailings dams, no ban on disposal of tailings direct into rivers, and no requirement for long-term monitoring after mine closure. The revised guidelines view sub-marine tailings disposal as an accepted practice, and allow emission levels of some toxic materials from mines at levels higher than limits set by existing standards. All these practices are banned or carefully circumscribed in many countries, including most notably the United States and Canada where many transnational mining companies have their base. Even in some Southern states, the World Bank standards undercut rather than uphold existing standards.[17]

The World Bank has not only orchestrated the dismantling of national controls, the liberalisation of mining regulations across the globe, and the downward revision of environmental standards, but has also been actively involved in promoting the industry's preferred replacement to binding legal safeguards. These are non-binding voluntary codes of conduct and voluntary guidelines and highlights of best practice. While the past and current record of the mining industry cries out for strict legal frameworks, internationally enforceable standards, sanctions and rights of redress, and independent monitoring of its activities, the industry is attempting to focus attention on self-regulation devoid of independently verifiable standards or legal sanctions.

Some NGOs, persuaded by this industry shift, have also pushed for the adoption of voluntary standards as a first step towards improvements. Most NGOs, however, insist on independent verification, inspection, penalties and enforcement, for which mining companies show little enthusiasm. But many affected communities and concerned groups view even this level of "dialogue" between mining companies and NGOs as premature or misdirected. Peoples who do not accept the right of miners to enter their territory and who reject mining as incompatible with their culture, economies or traditions have rejected the elaboration of Codes of Conduct. Their demand is for the focus to be upon the recognition of land rights and the rights of Peoples to determine the future of their own lands—issues which these codes fail to address. They are also concerned at the lack of any verification, independent monitoring or redress in the environmental management standards. They fear the

existence of such Codes may demobilise Northern-based critics of mining, isolate the communities and thus act as a charter to allow miners to enter their lands, develop mines but still be free to break any promises made.[i]

"Partners in development"

The World Bank and UN agencies have played a significant role in efforts to "transform" the image of transnational miners from that of being environmentally and socially destructive to one of environmental and social responsibility. They are identifying as "partners in development" and examples of industry "best practice" companies whose past and present human rights and environmental records still give rise to grave concern. The UN Development Programme (UNDP) and the World Health Organisation (WHO), amongst others, are being courted by the TNCs because such collaboration will give TNCs increased respectability. UNDP, for instance, has attempted to initiate the Global Sustainable Development Facility with a stated aim of drawing marginal and subsistence producers into the global market. It received the backing of 16 TNC sponsors, including mining TNCs, each contributing US$50,000. The WHO recently teamed up with five leading international mining companies (Placer Dome, BHP, Pasimco, Rio Tinto and WMC (formerly Western Mining Corporation) to form the "World Alliance for Community Health",[18] the stated aim of which is to improve community health through the promotion, development and facilitation of projects led by the private sector.

The establishment of the UN Centre on Transnational Corporations in the 1970s signalled international concern at the growing power and potential threat to democratic and equitable development posed by TNCs. Today, however, the Centre has been abandoned under pressure from the corporations and the USA and instead a resource-starved UN system is actively seeking the cooperation and financial backing of these same corporations. Bodies that could or should play an independent and potentially critical role in monitoring and examining the impact of mining on health, environment and development have instead become financially dependent upon them.

In addition, mining corporations are increasingly offering to take on what used to be the role of government in infrastructure development and provision of social services in return for the right to mine. They are also asking development NGOs to work with them in community liaison and development. Poor communities, impoverished governments and even development agencies inevitably find such offers attractive. There is, however, a clear danger of reproducing in the South the iniquities of the corporate fiefdoms developed by mining companies and other industrialists in the company towns of the early industrial era in Europe and North America.

Pressures for change

The most important and encouraging aspect of the shift in corporate posture and the accompanying opportunities for change, influence and dialogue is that this shift arises directly from the success of past campaigns to highlight the negative effects of mining. Even the mining industry's own journals acknowledge that the old approaches are no longer adequate and that the negative image of mining is already affecting prospects for investment and community acceptance.[19] Pressure for change has also been mounting because of the vitality of the indigenous peoples' movement and the reflection of this in emerging international standards. Agenda 21 (adopted at UNCED's 1992 Earth Summit) declared indigenous peoples as one of the nine 'Major Groups' in the future development and implementation of policies on sustainable development. During the past decade, as a result of their consistent efforts, demands for the recognition of their rights have increasingly been acceded to by institutions at both the national and international level. A UN Declaration on the Rights of Indigenous Peoples is even advancing through the UN system and it is expected it will be adopted over the next few years.

Some mining companies claim that their industry is making profound changes towards responsible and even "sustainable" mining. They claim these are changes that amount to much more than mere shifts in image or perception. They point to new policy statements and initiatives to support these claims. Placer Dome in Canada, for instance, issued a Sustainability Policy in 1998; Rio Tinto in the UK produced "The Way We Work" in 1998, while the Australian WMC has even established its own indigenous peoples department. The substance and credibility of these efforts has been challenged by critics. They point to the continuation of old practices. They further contend that the industry has paid more attention to lobbying articulate critics and seeking potential allies among policy-makers and NGOs in the North than to addressing or resolving community concerns on mining sites in the South. This, it is claimed, reveals the industry's preference for Public Relations gains and increased political influence over a genuine resolution of industry-generated problems.

The seriousness with which mining companies have adopted various lobby tactics to recover ground from their critics should not be underestimated. Companies have launched lobby initiatives towards the UN Commission on Sustainable Development (CSD), while for the last two years (1998 and 1999), mining companies including Placer Dome have attended the UN Working Group on Indigenous Populations (WGIP) to lobby indigenous delegates. Through the World Business Council for Sustainable Development (WBCSD), companies recently commissioned a British based NGO, the International Institute for Environment and Development, to produce a scoping study on society's changing expectations of mining. Despite a reticence to participate by most (if not all) community groups and even NGOs, the WBCSD is now claiming that the results of the scoping study *"pave the way for the full range of the industry's stakeholders to be consulted."* The WBCSD has declared its intention to move to a global conference on "Mining, Minerals and Sustainable Development",[20] though it does not explain how critical and sceptical groups in the most affected communities are to be identified, involved or consulted.

Rio Tinto, the London based mining giant, is among the most active mining members of the WBCSD. So the goals of Rio Tinto in entering into a more aggressive public relations strategy as articulated in 1998 by its Chairman, Robert Wilson, and summarized in a November 1999 edition of *Mining Journal* may be instructive. Wilson told the annual Davos assembly in Switzerland that his company hoped through their "engagement" policy to gain

> *"a stable public policy context governing the conditions for investment in mining and processing; a genuine willingness on the part of regulatory authorities to balance the benefits of environmental remediation with the cost of achieving it; a willingness to look beyond prejudice to how the industry is actually performing today on social and environmental issues; and an expansion of the vision of the industry's critics from single minded obsessions."* [21]

If the agenda of other mining companies involved in the WBCSD initiative is similar to that expressed by Rio Tinto, it seems they are not yet contemplating a genuine open-minded reassessment of mining so much as a correctional programme for their critics.

[i] This view has been repeatedly articulated in conferences and discussions including during the April 1998 Mining Skill Share in Baguio City, Philippines which was organised by MPI, Australia, and LRC, Philippines.

Mining and the rights of indigenous peoples in international law

Introduction

THE DENIAL of the rights of indigenous peoples, as "peoples",[i] is a major unresolved human rights issues. In some countries the rights, and even the existence, of indigenous peoples are not legally recognised or are denied. Discrimination is widespread and particularly manifest in the planning and implementation of development projects and in the granting of rights and concessions to extractive industries such as mining. The disproportionate impact of such projects imposed by governments and companies upon indigenous peoples and territories is almost always negative, whether in settler colonised and controlled countries such as Canada and Australia or in centres of supposed anti-colonial nationalism like India and China.

Despite widespread and systematic efforts by many states to assimilate indigenous peoples into mainstream culture and society, and to denigrate and deny their dignity and ways of life, most indigenous peoples have survived. They have also retained a unique relationship with their lands and resources through continuous occupation and use, and the continuous exercise of their rights and practices within the framework of their own cultures and laws. In some regions within Canada, where the colonial government has needed to legitimise its claims to resources in indigenous territories, the government has negotiated treaties that recognised the indigenous signatories as sovereign peoples.[ii] Elsewhere within the country there are native peoples who, by the virtue of not being drawn into signing such treaties with the colonial government, claim to have retained their sovereign rights and status.

Worldwide many indigenous peoples have no written treaty to point to in the defence of their rights. Their "integration" into today's modern states has often been imposed by direct coercion and force of arms. Nonetheless, because of the colonisers' lack of motivation or capacity to get into and control interior forested, mountainous, arid and other regions, and because of successful local resistance, indigenous peoples have remained in de facto control of parts of their lands and territories. Increasingly, however, this situation is changing. A hunger for raw materials and land coupled with the globalisation of the search for—and financing of—mineral exploitation is generating direct conflicts between indigenous peoples and mining interests. Throughout the centuries, the hunt for mineral wealth (especially gold) has caused much of the systematic human rights abuse inextricably linked to colonisation. This is still the case today but now the problems extend to the search and exploitation of a wider range of potentially profitable minerals.

The increasing intensity, however, of the assault upon indigenous rights and territories has generated a powerful response. Over the last 25 years, a challenge to the international community has been added to indigenous peoples' sustained assertion of their rights within their territories. The failure of many governments to implement and respect international human rights standards and the discrepancy between state practice and these standards have been forcefully and effectively exposed by indigenous groups, including those within Canada.

Indigenous peoples have challenged in particular the rights of governments and corporations to carve up the spoils of indigenous territories without either reference to, or the consent of, the affected peoples. The combination of local assertion of basic rights and international advocacy for greater recognition and respect for these rights has demanded and is receiving a positive international response, particularly within the UN system. It remains to be seen, however, how rapidly national governments and companies will act to recognise these basic rights.

It should be noted that although this section deals with rights recognised in international law by states, it is the exercise of the indigenous processes of law within their territories that has done most to nurture and maintain indigenous cultures and rights.

Indigenous rights in international law

The rights of indigenous peoples have been an area of lively debate and activity in inter-governmental organisations over the past 20 years. The United Nations, the International Labour Organisation (ILO) and the Organisation of American States (OAS) have all developed,

[i] A series of UN instruments, among others, the UN Charter (1945), the Declaration on the Right to Development (1986), the International Covenant on Economic, Social and Cultural Rights (1966), the International Covenant on Civil and Political Rights (1966) and the Declaration on the Granting of Independence to Colonial Countries and Peoples (1960) use the term "peoples". However, its scope and definition has never been directly addressed or established by the UN.

[ii] It should be noted however that the Canadian government and the decisions of Canadian courts do not subscribe to this view. They see the treaty as purely domestic agreements, governed by domestic law rather than international, that involved the cession of lands in exchange for guaranteed rights to reserves and subsistence areas without any recognition of the sovereign status of indigenous peoples.

or are in the process of approving, instruments on the rights of indigenous peoples. Indigenous peoples' rights were also recognised, to a certain extent, in the instruments adopted at the 1992 United Nations Conference on Environment and Development (UNCED). Multilateral development agencies have also attempted to account for indigenous rights by adopting policy statements that are, in part, based upon international standards. These actions at the international level have prompted many states to re-examine and reform their Constitutions, domestic legislation and policies so as to provide for greater recognition of indigenous peoples' rights.[iii]

Intergovernmental bodies responsible for monitoring compliance with international human rights treaties, like the United Nations Human Rights Committee (HRC), the Inter-American Commission on Human Rights (IACHR) and the Committee on the Elimination of All Forms of Racial Discrimination (CERD), have also begun to address indigenous rights in their decisions. In 1998, the first case concerning indigenous land rights was submitted to the Inter-American Court on Human Rights for adjudication. This case was filed against Nicaragua on behalf of the Awas Tingi citing human rights violations related to logging operations and the failure to recognise and demarcate indigenous lands. The impact of resource exploitation on indigenous human rights has been a particular focus of international standard setting activities and oversight.

"...we declare the following principles, goals and demands... Article 26. The cancellation of all mining concessions in our territories imposed without the consent of our representative organisations. Mining policies must prioritise, and be carried out under our control, to guarantee rational management and a balance with the environment..."

—CHARTER OF THE INDIGENOUS-TRIBAL PEOPLES OF THE TROPICAL FORESTS, 1992, ART. 26

The right of all peoples to self-determination and to freely dispose of their natural wealth

The starting point for any discussion about the rights of indigenous peoples must be the right of "all peoples" to self-determination, as defined in common article 1 of the international human rights covenants adopted by the United Nations in 1966. This right was explicitly applied to indigenous peoples by the United Nations Working Group on Indigenous Population and the UN Sub-Commission on the Prevention of Discrimination and Protection of Minorities in 1993 and 1994, respectively, when these bodies approved the draft UN Declaration on the Rights of Indigenous Peoples.

The pertinent part of common article 1 provides that:

> *"(1) All peoples have the right to self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development.*
>
> *(2) All peoples may, for their own ends, freely dispose of their natural wealth and resources . . . In no case may a people be deprived of its means of subsistence."*

This right has both procedural aspects—determining political status, pursuing economic, social and cultural development and giving or withholding consent—and substantive aspects, applying especially to ownership of and control over lands, territories and resources, including sub-soil resources. That this right applies to indigenous peoples is clear from the decisions of the UN's Human Rights Committee, the body charged with monitoring state compliance with the International Covenant on Civil and Political Rights (ICCPR).[1]

Indigenous rights are also aboriginal rights or rights that pre-date alien or colonial intervention. As noted by Osvaldo Kreimer of the Inter-American Commission of Human Rights: *"Indigenous peoples, because of their preexistence to contemporary States, and because of their cultural and historical continuity, have a special situation, an inherent condition that is juridically a source of rights."*[2] Since colonisation, the exercise of these rights has been impaired by discriminatory practices, dispossession and other acts considered unacceptable in today's world or declared inapplicable or unjust by international tribunals.

Indigenous territorial and resource rights are based not only upon the right to self-determination, derivative human rights and historical rights, but are also founded on prohibitions of racial discrimination. Under the Convention on the Elimination of All Forms of Racial Discrimination (CERD), for instance, states-parties are obligated to, inter alia, respect and observe, without discrimination, the right *"to own property alone as well as in association with others"* (art. 5(d)(v)). In its 1997 General Recommendation, CERD interpreted this to require that states

> *"recognize and protect the rights of indigenous peoples to own, develop, control and use their communal lands, territories and resources and, where they have been deprived of their lands and territories traditionally owned or otherwise inhabited or used without their free and informed consent, to take steps to return these lands and territories."*[3]

To sum up, the rights of indigenous peoples to have full ownership of and control over the territories which they have historically occupied and used and the resources underlying those territories are recognised in existing and emerging international instruments. There are even signs of the application of such requirements. Within Canada, in certain cases, sub-surface

[iii] For example: Colombia 1991; Brazil 1988; Chile 1993; Ecuador 1998; Venezuela 1983; Peru 1994; Costa Rica 1991; Mexico 1990; Bolivia 1991; Guatemala 1996; Paraguay and Argentina 1994; Canada 1982; Honduras 1997; Nicaragua 1988; Norway 1990; Finland 1997; Sweden 1997; Australia 1995; Russia 1993; Fiji 1996; Japan 1998. Philippines 1987.

"No activities must take place on indigenous peoples' territories without full and informed consent through their representative organisations, including the power of veto."

—Leticia Declaration on the Management, Conservation, and Sustainable Development of All Types of forests

rights of aboriginal peoples have been recognised and negotiated in specific land claim settlement agreements.[iv] The United States recognises Native American rights to exploit minerals pertaining to reservations to the extent that *"the right of perpetual and exclusive occupancy of the land is not less valuable than full title in fee."*[4] In the vast majority of countries and cases, however, this right is still not respected and states have historically employed a series of discriminatory practices and legal fictions to dispossess indigenous peoples of their lands and resources, often with disastrous consequences.[5]

Consent, participation, consultation and benefit-sharing

The UN draft Declaration on the Rights of Indigenous Peoples (art. 30) and CERD both require that free and informed consent be obtained from indigenous peoples prior to the state authorising mining or other activities that may affect indigenous rights. In its General Recommendation, for instance, CERD called upon states-parties to

> *"ensure that members of indigenous peoples have equal rights in respect of effective participation in public life, and that no decisions directly relating to their rights and interests are taken without their informed consent."*[6]

The OAS proposed Declaration on the Rights of Indigenous Peoples and International Labour Organisation Convention No. 169 Concerning Indigenous and Tribal Peoples have adopted lower standards, which apply in cases where *"the State retains the ownership of mineral or subsurface resources."* The OAS requires informed participation and mandatory benefit-sharing (art. XVIII), and the ILO requires consultation and "wherever possible" benefit-sharing (art. 15(2)). Both require that states establish or maintain procedures through which consultation or participation shall take place. This approach has been adopted by a number of states who have not recognised indigenous peoples' rights to either own sub-surface resources or to consent to exploitation thereof.[v] Many states, however, do not even notify indigenous peoples, let alone consult with or seek their permission, prior to granting mining concessions on their lands.

This approach is consistent with the observations of the UN Center for Transnational Corporations, which concluded that

> *"TNCs' performance was chiefly determined by the quantity and quality of indigenous peoples' participation in decision making"* and *"the extent to which the laws of the host country gave indigenous peoples the right to withhold consent to development, and on the degree to which indigenous communities themselves were fully informed, and effectively organized for collective action."*[7] With regard to land rights, the Centre concluded that *"land rights are a necessary precondition for effective participation."*[8]

All these international standards require, as a fundamental principle of human rights, that consultation takes place, or consent be gained, prior to the authorisation of mining activities. Gary McMahon treats this as a practical issue stating, *"if local and indigenous peoples have no role or rights in law from the outset in a consultative process involving only companies and the state, then it is difficult to address concerns in a retrospective way."*[9]

The right to culture

Indigenous peoples' relationship with the total environment of their lands and resources is a fundamental aspect of their cultural identity. Therefore, activities such as mining which impact upon this relationship also impact upon cultural integrity and survival. Article 27 of the International Covenant on Civil and Political Rights (ICCPR) and article 30 of the Convention on the Rights of the Child employ similar language and embody one manifestation of the right to culture in international law. In a 1994 General Comment, the UN's Human Rights Committee (HRC) stated that:

> *"With regard to the exercise of the cultural rights protected under Article 27, the committee observes that culture manifests itself in many forms, including a particular way of life associated with the use of land resources, specifically in the case of indigenous peoples. That right may include such traditional activities as fishing or hunting and the right to live in reserves protected by law. The enjoyment of those rights may require positive legal measures of protection and measures to ensure the* ***effective*** *participation of members of minority communities in decisions which affect them."*[10] [emphasis added]

[iv] See, for instance: the Gwich'in Agreement signed in 1992, the Nisga'a Agreement-in-Principle (1996) and the Nunavut Land Claims Agreement of 1993.

[v] Colombian regulations, for instance, provide that "Prior consultation is a fundamental collective right of the indigenous peoples, and a procedure that allows the state to fulfill its constitutional duty to guarantee their ethnic, cultural, social and economic integrity . . . ." With regard to benefit sharing, the 1997 New Mining Code of Bolivia, recognises the right of Indigenous communities to benefit, through the distribution of revenues from taxation, from mining within their municipalities. Ministerio del Interior, Direccion General de Asuntos Indigenas, *Reglamentacion del Proceso de Consulta Previa a los Pueblos Indigenas*, 1996, art. 4.

In a case involving the impact of oil and gas exploitation in Canada, the HRC has interpreted Article 27 of the International Covenant on Civil and Political Rights to include the *"rights of persons, in community with others, to engage in economic and social activities which are part of the culture of the community to which they belong."*[11] In reaching this conclusion, the HRC recognized that indigenous peoples' subsistence and other traditional economic activities are an integral part of their culture, and interference with those activities can be detrimental to cultural integrity and survival.[12]

Environment and human rights

A number of global and regional human rights instruments include a right to a healthy environment.[vi] Looking specifically at indigenous peoples' rights, intergovernmental organisations have examined the nexus between environment and human rights. In her important study on human rights and the environment, United Nations Special Rapporteur Fatima Ksentini annexed a draft Declaration on Human Rights and the Environment. Draft Principle 14 states that:

> *"Indigenous peoples have the right to control their lands, territories and natural resources and to maintain their traditional ways of life. This includes the right to security in the enjoyment of their means of subsistence. Indigenous peoples have the right to protection against any action or course of conduct that may result in the destruction or degradation of their territories, including land, air, water, sea-ice, wildlife or other resources."*[13]

The International Labour Organisation's Convention No. 169, while not declaring a right to environment, is the first major international instrument to relate environmental concerns specifically to indigenous peoples. To date, the Convention has been ratified by only 13 states.[vii] Art. 4(1) requires states to take "special measures" to protect the environment of indigenous peoples. The OAS draft Declaration on the Rights of Indigenous Peoples also includes a right to a healthy environment (art. XIII), as does the UN draft Declaration in article 28.

In its 1997 Ecuador Report, the Inter-American Commission of Human Rights (IACHR) recognized that state policy and practice concerning resource exploitation can not take place in a vacuum that ignores its human rights' obligations. Specifically, the Commission stated that it

> *"considers that the absence of regulation, inappropriate regulation, or a lack of supervision in the application of extant norms may create serious problems with respect to the environment which could translate into violations of human rights protected by the American Convention."*[14]

Building upon principles adopted at the 1992 United Nations Conference on Environment and Development (UNCED) and various articles of the American Convention on Human Rights, the IACHR highlighted the right to participate in decisions affecting the environment.[15] An integral part of this right is access to information in an understandable form. Emphasizing procedural guarantees and state obligations to adopt positive measures to guarantee the right to life, the IACHR stated that,

> *"The quest to guarantee against environmental conditions which threaten human health requires that individuals have access to: information, participation in relevant decision-making processes, and judicial recourse."*[16]

Conclusions

Indigenous rights are increasingly gaining recognition in international law and in some countries. In the specific area of mining, however, these advances are in part counterbalanced by the fact that mining companies tend to downplay and avoid legal frameworks. In fact, mining still represents a growing threat to indigenous peoples. Mining companies still focus on making profits at the expense of indigenous rights and their financial and political power has dramatically increased over the past two decades. Liberalised mining codes and revisions in legislation advocated by mining companies have reduced the legal framework constraining foreign mining companies in many countries. Laws and regulation are being replaced by self regulated and often voluntary codes of practice which carry no legal sanction when breaches occur (*see Global trends, pages 22-23)* . As the more accountable international institutions respond to the pressures and demands of concerned peoples, so the companies retreat into non-accountable processes and sources of finance.

[vi] See, for instance, the 1981 African Charter on Human and Peoples Rights, the 1989 United Nations Convention on the Rights of the Child, the 1988 Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights and Agenda 21.

[vii] The following states have ratified ILO 169: Mexico, Denmark, Ecuador, Fiji, Norway, Costa Rica, Colombia, Honduras, Peru, The Netherlands, Guatemala, Bolivia and Paraguay. Austria and Argentina have ratified the Convention in their respective legislatures, but have yet to transmit instruments of ratification to the ILO. Additionally, the following states have submitted it to their national legislatures for ratification or are discussing ratification: Brazil, Chile, Venezuela, Philippines, Finland, El Salvador, Panama, and Sri Lanka. Germany has enacted legislation linking its development assistance to ILO 169.

"Mines come and go but a pure nature can sustain us and our future generations"

—"Between a Rock and a Hard Place: Aboriginal Communities and Mining", September, 1999, Innu Nation/MiningWatch Canada

Mining impacts

Many types of mineral and material are mined. The social and environmental impacts caused by mining processes can—at their worst— cause social and environmental disasters. Even under controlled conditions, they are among the most severe of any industrial process. Some impacts are common to all mining while others relate specifically to particular metals and processes. Disastrous failures including tailings dam collapse, toxic discharge, and landslides compound this basic problem. Such disasters occur all too frequently despite all efforts to improve technology and care. The industry may console itself by arguing that only a relatively small number of serious accidents occur, but for communities dependent on affected land, rivers and seas for their subsistence and livelihood this is no consolation.

Sustainable mining?

The industry, when challenged, does not dispute that its operations profoundly disturb the environment. The exploitation of minerals through mining is fundamentally unsustainable based as it is on the extraction of non renewable mineral concentrations laid down over millions of years. Once removed, the minerals can never be restored and the disturbance to bedrock, drainage patterns, soil fertility and the total environment are so profound as to result in permanent change and damage. Considerable industry efforts are focused on improvement in restoration and the claim that the worse impacts will be short-lived.

The mounting demand for all industrial development to be "sustainable" environmentally and socially makes calls on the mining industry which it has so far failed to meet. When the mining industry speaks of "sustainability" as it now does, it is referring primarily to its continuing capacity to supply minerals to the world market (its sustainability as an industry), rather than to its social and environmental sustainability. In environmental terms, it is the minimising of undeniably negative impacts rather than misleading claims of "sustainability" that should be the focus of debate. The achievement of this must surely include systematic efforts to reduce the scale of mining and new projects and maximise recycling, develop alternative materials and reduce demand. Perhaps understandably, many in the mining industry are, rhetoric aside, resistant to this view.

As the more easily accessible mineral deposits are worked out, a hunger for new cheap sources drives the industry into intensified exploration increasingly into indigenous territories and sensitive environmental zones. Mining companies are also developing new techniques that enable profits to be made from the working of lower grade deposits. The shift to the exploitation of these lower grade ores can make mining even more invasive and environmentally damaging than ever before. The working of such deposits requires the construction of ever-bigger mines affecting ever-larger areas and the creation and dumping of unprecedented amounts of mine waste. This makes it almost inevitable under current practice that there will be recurring failures in safety and environmental protection and that the scale of these failures will also increase.

In many of the cases cited in this report the current limits of control and sanction have allowed serious and long term environmental and social costs to be "externalised", that is, the costs are being borne by the affected areas and peoples and governments rather than by the companies.

Environmental impacts

Land, forests and ecosystems

Mines can occupy and despoil large tracts of land. This is especially the case with open pit and strip mining, which, because of lower costs, is on the increase. Many of the mines opened during the past few decades and much current mining exploration affect forest ecosystems. According to the World Resources Institute, large-scale mining and exploration for fossil fuels, with their related roads and energy needs, represent the second largest threat (after commercial logging) to frontier forests[i] globally, affecting nearly 40% of all frontier forests classified as under moderate or high threat.[1] Mining disturbs the soil and bedrock, drainage patterns and long term fertility.

Trees are not only cleared to make way for mining operations. Mines, especially underground mines, use large quantities of timber from the surrounding forests. Forests have also been cut down to provide energy for the mines. At the Grande Carajas iron ore project in Brazil, for instance, smelters were designed to burn charcoal generated by the rainforests, the

[i] According to the WRI, *"frontier forests are the world's remaining large intact natural forest ecosystems. These forests are—on the whole—relatively undisturbed and big enough to maintain all of their biodiversity, including viable populations of the wide-ranging species associated with each forest type"*. World Resources Institute, 1997, *The Last Frontier Forests*, p.11

cheapest short-term supply of fuel.[2] Infrastructure to support mines also extracts a heavy toll. Access roads to mines cut into forests and facilitate access to these areas by settlers, illegal loggers, and others. Pipelines also cut through forests and can become a major source of toxic pollution when they break or spew tailings into natural ecosystems *(see The Philippines, page 60)*.

Forest can also suffer "die back" *(see The Philippines, page 63)* where it is exposed to toxic pollutants, acid rain or dust pollution from processing plants *(see Indonesia, page 78)*. Wide and spreading tracts of forest are affected by die back at the Ok Tedi mine in Papua New Guinea, for example. This mine, one of the most notorious cases of wanton environmental destruction by a current mining venture is the responsibility of BHP (Australia), Inmet (Canada) and the PNG government.[3]



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Above: Opencast mining. This Philex Gold Project at Sibutad, Mindanao, Philippines, has removed vegetation cover and exposed wide areas adjacent to the coast to erosion.

Dumping areas for the millions of tons of waste rock generated in a mining project are frequently identified in forested valleys. The rock wastes being dumped in the Ajikwa River in West Papua, Indonesia in 1997, at a rate of 130,000 tons a day (currently more than 200,000 tons a day) have devastated 30 square kilometres of lowland rainforest and are expected to destroy another 100 square kilometres.[4] They emanate from the largest gold mine in the world, operated by US company, Freeport McMoRan, and British-Australian company, Rio Tinto. Tailings ponds also take land and, in addition, contain concentrations of chemicals and heavy metals. Studies in the USA have revealed that thousands of birds and animals are killed each year by coming into contact with toxic tailings ponds. Elsewhere in the world human communities live adjacent to tailings ponds heavy with cyanide and poisonous compounds.

Increasing claims are made for reforestation after mining. Sadly, there are often more words than trees. Many reforestation projects cover limited areas and many of the trees planted do not thrive. The disturbance of original soil structures lead to stunted growth due to water and nutritional deficiencies *(see Indonesia, page 79)*.

Mining threatens other key habitats besides forests: mountain, fresh water, riverine, coastal and marine ecosytems. According to The World Conservation Union (IUCN) and the World Wide Fund for Nature (WWF), many of the world's 200 critical ecoregions in terms of biodiversity conservation (Global 200), including Northern Canada, the Guyanan and North Andean Regions, Western Central Africa, Russian Far East and Siberia, and the Pacific Rim—are threatened by mining.[5] Even designated protected areas are increasingly threatened as vested interests are prepared to revise protected area boundaries to accommodate miners *(see feature 'Nishnawbi-Aski Nation and Ontario's living legacy, page 17)*. The proposed opening up of the Imataca Reserve in Venezuela is one such proposal.

Below: Pipes pumping tailings into Calancan Bay, Marinduque Island, Philippines, 1989. The dumping of tailings went on day and night for 16 years and eventually filled the bay with some 200 million tons of tailings.

© CATHERINE COUMANS



Water

Mining consumes massive amounts of water during its various phases and can severely lower the water table, depriving plants and people of their water supply. Pollution of water sources with dangerous toxic discharge can also threaten health and livelihood. Many mineral processing activities depend on the use of toxic materials including cyanide, concentrated acids and alkaline compounds. Through occasional major accidents and more frequent smallscale escapes these toxic materials find their way into the drainage system. Mercury from processing gold in small-scale operations also creates hazards. In addition, toxic materials typically discharged from mines can enter the

food chain and accumulate in the bodies of animals and people, causing a serious health threat.

Despite the use of containment systems, mining virtually always has a long-term negative impact on the quality of water downstream from a mine. In some major mining operations around the world, perhaps most notoriously at the Ok Tedi mine, even minimum standards are ignored and waste material is dumped straight into the rivers, which are considered and even described as sacrifice zones.[6] Mine waste chokes rivers, clogs irrigation systems and farmland. In the sea it can smother and kill corals and destroy fishing grounds. Its finest material is carried as unstable clouds of suspended solids driving away and choking marine life. Despite the fact that submarine tailings disposal (STD) has been shown to bring adverse effects to marine life[7] and the marine environment, the industry is pressing for its acceptance worldwide.

Mine wastes and tailings

Huge amounts of ore are extracted in mining. Through the stages of mining, milling and processing (crushing the ore and mixing it with chemicals to extract the target material), massive amounts of waste rock and dust are generated. The mining industry in Canada alone generates an estimated one million tonnes of waste rock each day and 950,000 tonnes of tailings.[8] The extraction of one ton of gold can generate between one to three million tons of waste, depending on grade and extraction efficiency.[9] At the Golden Bear gold mine in British Colombia, a six gram wedding ring leaves six tonnes of waste rock in its wake.[10]

Perhaps the most profound long-term environmental impact can come from acid mine drainage (AMD). Certain ore types—particularly sulphide deposits—begin, on exposure to the air and water as a result of mining, to form acids, which in turn react upon other exposed minerals. This can result in a self-perpetuating outpouring of acidic toxic material which can continue for hundreds or even thousands of years. The Equity silver mine in British Colombia, for example, operated by Placer Dome, closed in 1994 but could produce acid mine drainage for another 500 to 150,000 years. Contamination of surrounding land and water can be prevented only by operating a treatment plant 24-hours-a-day for as long as acid mine drainage persists[11] *(see also features 'Canadamage Inc.', page 6, and 'Ok Tedi: a poisoned legacy?', page 8)*.

Contamination does not stop when a mine is closed. Long-term remediation efforts such as water quality treatment and tailings pond care to prevent spills and leakages need to be carried out. Sometimes companies cover these remediation costs, but in many cases mines are abandoned, leaving local communities and governments to deal with the ensuing health and safety issues.

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Smelters can generate sulphur emissions (which cause acid rain), ash and smoke. Soroako nickel smelter, Sulawesi, Indonesia.

Air pollution

The dust from mining can be a serious health hazard and incidents of respiratory ailments are unnaturally high around mines.[12] Plants and trees are also choked, damaged or killed. Sulphur dioxide (responsible for acid rain) is generated by some processing operations, while carbon dioxide and methane, two of the major greenhouse gases responsible for climate change, are generated by burning fossil fuels and through the creation of artificial lakes behind hydroelectric dams to provide energy for smelters and refineries. Mines, smelters and refineries account for around 10% of the world's energy consumption.[13] The smelting of aluminium (derived from bauxite) requires particularly large amounts of energy, often provided by hydroelectric dams subsidised by national governments and international agencies rather than by the companies.

Noise and light pollution

Many modern mines including open pit projects operate 24 hours per day. Equipment is loud and blasting is frequent. These conditions can impose intolerable stress upon local people and forest animals and birds.

Social impacts

Mining, or at least the products derived from mining, bring many and varied positive benefits. The major beneficiaries of mining are however in the richer Northern states, which are using up an increasing proportion of the earth's minerals, and among the urban elites in the South. These groups have too often in the past been prepared to turn a blind eye to the irreversible environmental damage and human rights abuses associated with mining. Mounting community protest, an increase in the scale of environmental impacts and greater global awareness, however, seem to be bringing this era of acquiescence to an end.

Indigenous rights

An increasing proportion of mining is taking place on indigenous territories. The majority of the world's indigenous peoples do not have their land rights recognised by the states in which their territory is found and mining companies frequently hide behind the absence of adequate standards of recognition. By so doing, many companies who already operate in Canada or elsewhere may apply double standards in their treatment of indigenous communities.

In a complete reversal of logical or effective approaches to environmental and social protection the people most directly affected by the negative impacts of mining have the least control over these impacts. The majority of communities faced with the prospect of mining oppose its development, but their opposition is frequently ignored or suppressed.

Displacement

Displacement of people including forced resettlement remains a common feature of mining development *(see Suriname, pages 49-50)* despite the fact that resettlement has been proven to cause severe hardship. Displaced communities are sometimes resettled in areas without adequate resources or left near the mine, suffering the brunt of pollution and contamination. The construction of dams to provide energy to smelters and refineries can also cause large numbers of people to be displaced.

Human rights violations

The sites of mines are, in many cases, areas of tension and conflict. To affected communities, they represent concrete manifestations of vested interest and profit-making directly at the expense of local populations. Frequently, opposition to mines is suppressed by the use of force and military deployment or even mercenary armies. Gold and diamond mining are particularly associated with militarisation and abuses. In Indonesia, some areas around large-scale mines are among the most heavily militarised and conflict-rife areas in the country. Worryingly, the role of mining companies in financing military operations and private armies is on the increase world-wide *(see The Philippines, page 69)*. Elsewhere, mining companies have hired mercenaries even to change governments, quell rebellions, secure their mining rights or expel local people. Mercenary operations to retake diamond concessions in Angola and Sierra Leone, for example, have been financed by mining companies *(see feature 'Robert "Toxic Bob" Friedland', page 10)*. Cases of militarisation and violence (including torture, beating and even killings) have been well documented *(see feature 'Buried alive: the Bulyanhulu atrocity', page 15)*.[14]

The socio-economic, civil and political rights of local communities are often violated through displacement, loss of resources, and water, soil and air contamination. In line with the United Nations Declaration of Human Rights and other human rights resolutions within the UN system, their rights to land, development, health and self-determination are violated. Through the imposition of mines against their will, their rights to participation, consultation and decision-making are violated. Through the use of violence, torture, arrests and harassment, their rights to life, freedom from fear, freedom from torture and cruel, inhuman treatment, protection from enforced disappearance and arbitrary arrests and their children's rights to protection are all violated.[15]

Employment and livelihoods

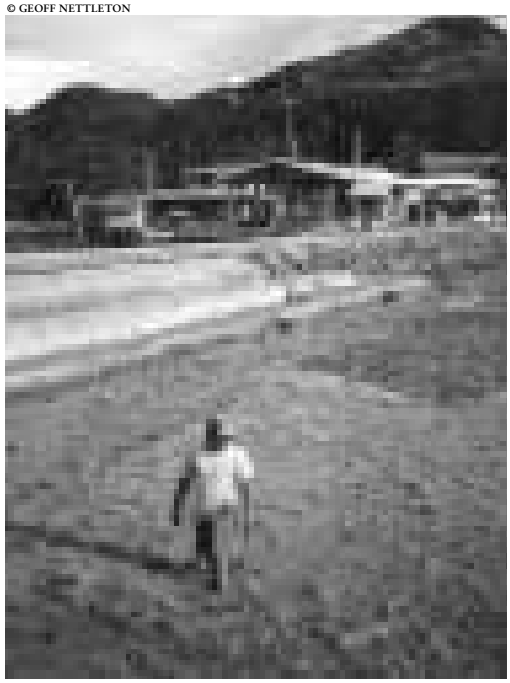
The promises of jobs represent one of the few positive incentives that encourage affected communities to allow mining in their territories. These promises, however, frequently fail to materialise. Lost jobs and livelihoods in agriculture, fisheries and small-scale mining often heavily outnumber the mining jobs on offer. Local people often also lack the skills to benefit from anything but the shortest term and lowest paid jobs available. The heavy loss of jobs and livelihoods in the shift from independent artisanal to commercial gold mining is particularly disturbing. Moreover, the environmental impacts

"They come in and start doing their project before consulting so we have to push them away. We have to make the machines and people leave so negotiations can start. We are doing two blockades a year and the people are bored with it but they have total confidence that they own the land."

—"Between a Rock and a Hard Place: Aboriginal Communities and Mining", September, 1999, Innu Nation/MiningWatch Canada

Philex Gold operations at Sibutad, The Philippines, have choked the harbour and nearby coastal mangroves. High levels of mercury and cyanide have also been detected in the bay. Local fisheries have been severely affected.

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"In our community we are identifying the abandoned mines now for the sake of our future generations, so that they will know where the pollution is and where not to drink the water."

—"Between a Rock and a Hard Place: Aboriginal Communities and Mining", September, 1999, Innu Nation/MiningWatch Canada

caused by the various stages of mining severely affects the ability of local communities to sustain themselves. Indeed, in very many cases local communities affected by mining end up in poverty.

Women and children

Large-scale mining often has a serious impact upon the status and treatment of women and children. It is often the subsistence farms of women that fall victim to the mining industry's hunger for land, while the few jobs for locals created by mines are largely restricted to men. Compensation, if paid, normally takes a cash form which goes most often to men while it is often women's livelihoods that are lost.

A study by the Women Workers Programme in the Philippines reveals that families living in overcrowded company bunkhouses suffered increased family breakdown, infidelity and violence against women.[16] Mining towns filled with unaccompanied men suffer the introduction of prostitution. The incidence of HIV and AIDS in some African countries is highest among both men and women living in mining townships. In Brazil, incursions into indigenous territories by illegal small scale miners has led to the capture and purchase of women and the spread of venereal and other diseases among Indian communities.[17]

Young children are particularly susceptible to chronic respiratory diseases caused by mining dusts; their only playgrounds are often the waste piles and ponds. Older children rarely find long-term employment in the mines and often become increasingly alienated from their community. At worst this leads to alcohol and drug addition, violence and even self-destruction.

Assault upon religion and culture

The power and dominance of a mining company in remote areas can be immense. Their control or influence over transport, power supply, work opportunities and military activities can completely overpower local institutions. A workforce, mainly of outsider men, is frequently imposed on local communities. Issues of social disruption, marginalisation of local culture, prostitution, and drunkenness are almost universal.

The beliefs, burial patterns and strong attachment of indigenous peoples to their land can mean that the mining of some areas cannot proceed without mounting a direct assault upon the belief system and culture of a people. Nonetheless, there are many instances of sacred sites, burial grounds and key cultural heritage sites being mined. Indigenous spokespersons have repeatedly pointed to the different standards applied to decisions to mine on sacred and cultural heritage sites of western culture and those of indigenous groups.

Health hazards

The contamination of water and fisheries resources, as well as soil and air, contributes to increased levels of toxic build-up in peoples' bodies *(see The Philippines, page 63, and Guyana, pages 38-39)*. Asthma and other respiratory problems are widespread in their association with mining and particularly affect children and old people.

Health hazards also affect workers in the mining industry. According to annual International Labour Organisation statistics, mining and quarrying are among the most dangerous and accident-prone industries with more than 15,000 deaths per year. Long term disability due to accidents, underground working, inhalation of dust, and exposure to heavy equipment make the industry among the most dangerous of all work activities.[18]

Corruption

Mining companies are notorious for operating in countries with blatantly corrupt regimes and in direct collaboration/partnership with corrupt individuals in high office *(see The Philippines, page 59, and Indonesia, page 71*).

Economic and political chaos

Despite the promise of wealth that mineral development holds, in reality, the presence of mineral wealth can even hold back national and local development. According to one study, "*developing countries rich in mineral resources tend to have slower rates of economic growth, lower levels of social welfare and more highly skewed income distributions than non-mineral developing countries. In fact, the superior resources base of the mineral economies has been more a curse than a blessing.*"[19]

Furthermore, given the heavy foreign debt affecting many developing countries, in recent years some countries have been forced to accept World Bank-designed policies to fully liberalise mining which are seen by many groups as contrary to long term development and an assault on national sovereignty[20]*(see The Philippines, page 57)*.

Part III

Guyana

Introduction

Bordered by Suriname, Brazil and Venezuela, Guyana is the only English-speaking country in South America. It is home to nine distinct indigenous peoples comprising 60-80,000 persons, approximately 8-10% of the total population. The remainder of the population is of African, Asian (East Indian and Chinese) and European (Portuguese, English and Dutch) descent, generically known as coastlanders in Guyana. Indigenous peoples occupy the coastal forests and the tropical forests and savannahs of the interior (approximately 90% of the country), while the coastlanders live mainly in the remaining 10%.

Once relatively prosperous, Guyana is now at the bottom of Western hemisphere economic indices, ranking above only Haiti and Suriname. It has a substantial foreign debt of US$1.5 billion on which it must pay interest of US$80 million each year from its average annual revenues of US$193 million. To generate income and to satisfy the conditions of a 1991 IMF/World Bank structural adjustment programme, Guyana has sought to exploit the natural resources of its interior, especially timber and minerals.[1] Gold and diamond mining concessions presently cover about 40% of the country, the most recent additions being grants of 2.1 million hectares to the Canadian company, Vannessa Ventures, and 3.2 million hectares—almost 25% of the country—to a South African company, Migrate Mining Ltd. The latter encompasses most of the ancestral lands of the Akawaio, Arecuna, Patamona, Wai Wai, Macusi and Wapisiana peoples, who were neither consulted nor informed about the concession. At least 48 indigenous villages are found within these two concessions alone, which are more than three times larger in area than all recognised indigenous lands in Guyana combined. Both concessions cover rich and diverse tropical forest.

Mining has not only failed to deliver promised social benefits; it has also had a substantial impact upon indigenous land, subsistence and other rights, both through restrictions on access and through environmental degradation and social disruption. It is estimated that small-scale miners dumped almost 50 tonnes of mercury into the environment during the years 1989-1994; in 1997 and 1998, mercury release rates were estimated to be 25% higher per annum than 1989-1994 rates.[2] Many aquatic ecosystems have been destroyed, substantially reducing fish stocks and clean water sources.[3] A cyanide spill in 1995 at the Canadian-operated Omai mine stopped indigenous communities from fishing for at least three months and forced many to travel long distances in search of drinking water. Heavy metal contamination has never been assessed. Governmental monitoring and regulatory capacities are minimal to non-existent, and existing laws are not enforced. Indigenous communities and organisations have vigorously opposed this activity, characterising it as uncontrolled, irresponsible, of little benefit to the nation and highly prejudicial to their rights and well-being. These complaints have been ignored as the government continues to solicit additional foreign investment and to provide incentives for local mining and logging operations.

According to Denis Canterbury of the University of Guyana:

> *"Despite their special treatment the indigenous peoples in Guyana are severely affected by mining in terms of linguistic, social and economic disruptions. These effects include a disruption and disappearance of their fishing and farming ground and languages, the prevalence of new diseases such as AIDS, flooding, pollution of rivers and creeks, depopulation and a degraded environment. In some cases indigenous peoples are considered squatters on their own land, experience poor education/school conditions, veiled racism, malaria, lack of piped water and electricity, and are paid poor salaries."*[4]

More generally, Janette Forte of the Amerindian Research Unit of the University of Guyana adds that:

> *"The mining industry has had a profound effect on many Amerindian communities, both those close to mining sites as well as those far away. Yet there are no established mechanisms to allow Amerindian leaders to meet periodically with officials of the State and the mining industry to ventilate concerns or to receive information on local or national developments. This is perhaps inevitable in an industry that developed rapidly within an economy where infrastructure, human*

and material resources are all limited. From the indigenous point of view, nevertheless, the urgent need is for the settlement of outstanding land claims, a mechanism for consultation as well as more direct benefits from some of the royalties and other payments accruing to central Government from interior-based industries."[5]

These issues have been raised by many other commentators and are part of a larger body of literature detailing the serious problems caused by resource exploitation on or near Amerindian lands. This was noted by a World Bank consultant in 1995, who stated that

"Every report which has come to this writer's attention has devoted space to the single largest economic, political, and psychological issue facing Amerindians today: the interplay of lack of statutory, titled land rights and the increasingly aggressive behaviour of national and international mining and logging corporations."[6]

Mining is a land-based activity that severely impacts upon the full range of Amerindian rights defined by international law, especially land and cultural rights. Many Amerindians have asserted that the only adequate protection for their communities is the full recognition of their territorial rights, which includes ownership of the subsoil. Indeed, most Amerindians already consider themselves to be the legitimate owners of these resources and make no distinction between the surface and subsurface of their lands.

Indigenous land rights

When Guyana attained its independence from the United Kingdom in 1966, it was agreed that *"the legal ownership of [indigenous peoples'] lands, rights of occupancy and other legal rights held by custom or tradition"* be legally recognised without distinction or disability. To implement this, an Amerindian Lands Commission was established in 1966.

In 1969, this Commission issued its report in which it noted indigenous requests for title and recommended that 128 indigenous communities receive title to 24,000 square miles. Indigenous peoples had requested title to 43,000 square miles, slightly more than 50% of the country, most of which were rejected by the Commission on the grounds that the areas requested were *"excessive and beyond the ability of the residents to develop and administer."*[7]

The Amerindian Lands Commission also recommended that mineral rights to a depth of 50 feet should be granted to Amerindians.[8] To date, 74 communities have received title to only 6,000 square miles (4,500 square miles in 1976 and 1,500 square miles in 1991), and mineral rights are explicitly excluded from the titles. More than 50 communities remain without any legal guarantees for their lands. Furthermore, the titles issued are subject to substantial statutory limitations that permit expropriation of indigenous lands in six different ways, subjecting indigenous tenure to the whims of the government of the day.

The recommendations of the Amerindian Lands Commission were partially implemented in 1976 when the 1951 Amerindian Act was amended to vest title in some Amerindian communities. It is widely assumed that the 1976 Amerindian Act, described by a World Bank consultant as *"an old style statute, setting out a colonial structure of indirect rule"* which is *"almost completely irrelevant to anything going on in Guyana on Amerindian questions"* granted Amerindians inalienable, freehold titles.[9] In reality, the Act placed so many conditions and limitations on Amerindian land titles that this assumption cannot be supported.

As indicated by the numbers above, the extent of the titles granted bears little relationship to the lands recommended by the Amerindian Lands Commission (one-quarter) or those claimed by Amerindians (less than one-seventh). Furthermore, the titles bear little relationship to Amerindian subsistence practices and indigenous land rights as defined by international human rights law. These titles also broke up once contiguous indigenous lands into islands intersected by areas of state lands, facilitating the entrance of environmentally-destructive and socially-disruptive mining and logging operations into the heart of traditional Amerindian lands, generating much conflict and resentment. Many of the communities without title are now located in concession areas. It should come as no surprise, then, that Amerindian communities throughout Guyana have expressed deep dissatisfaction about their lack of land tenure and are seeking either titles or extensions of their existing titles.

Amerindian village dependent on the interior's natural resources.

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Government policy and legislation concerning mining

With one exception, government policy related to mining has not been integrated into larger forest, interior development or environmental policies, thereby creating numerous contradictions and lacunae. The exception, found in the government's official policy on mining states that

> *"Government is committed to the principle of multiple land utilisation, and to this end encourages both mining and forestry (or any other land uses) on the same area of land."*[10]

While noting that mining can have a negative impact, Guyana's draft National Development Strategy succinctly sums up the official position as:

> *"The Geology and Mines Service stands reminded that the goal of gold development is to find over time several other "Omais" and to achieve high levels of production from the medium- and small-scale gold mining sectors. Diamond exploration and development is being promoted as well."*[11]

Omai is Guyana's only producing large-scale gold mine—and the cause of its worst ever industrial accident.

According to Section 6 of the 1989 Mining Act the state is the owner of all mineral resources. It provides that,

> *"[s]ubject to the other provisions of this Part, all minerals within the lands of Guyana shall vest in the State."*

Using Section 6, the government asserts the right to issue mining permits anywhere in Guyana, including on Amerindian titled lands. However, in 1997, the Government adopted an administrative policy on mining, which provides that:

> *"There have been criticisms of the Guyana Geology and Mines Commission (GGMC) entering into agreements for mineral prospecting and other developments over Amerindian lands without reference to the Amerindians living there. Government has decided that recognised Amerindian lands would stand exempted from any survey, prospecting or mineral agreements unless the agreement of the Captain and Council for the proposal is obtained by the GGMC in writing. While upholding the law that subsurface rights are vested in the State, government is of the view that the search for and development of mineral deposits on Amerindian lands is desirable since it can contribute to rapid growth and development of Amerindians and Amerindian communities. Government recognises too the many potential negative impacts and the need to arrange to minimize if not avoid them altogether."*[12]

This policy statement stands in stark contrast to the many complaints made by Amerindian communities that they were neither consulted nor even informed about the granting of mining concessions on their lands, let alone asked their permission. The most recent complaint was made in July 1999 when the government issued a concession of eight million acres to a South African company. The policy statement also contradicts the many reports of consultants, NGOs and others that no mechanism exists for consulting with Amerindian communities about mining. On the rare occasion that consultation does take place, it is always *after* an agreement has been concluded. Also, and most importantly, the statement only applies to "recognised" or titled Amerindian lands and, therefore, excludes all the outstanding lands recommended by the Lands Commission (75%), lands presently claimed as extensions and the lands of communities without title.

In short, government policy on mining and indigenous rights exists on paper only; even if adhered to, it would apply to only a fraction of the lands over which indigenous peoples have rights under international human rights law. To be truly effective, it must be instituted in law and the procedures by which Amerindian consent is to be obtained must be prescribed therein.

While the government maintains that it has the right to all minerals and may issue permits to exploit those minerals in any part of Guyana, the Mining Act and the regulations issued thereunder place a number of restrictions on the exercise of this right. Amerindian communities are not familiar with these provisions and the GGMC appears to routinely ignore them. There is also ample evidence that complaints registered concerning violations of these provisions are not investigated. These observations are consistent with the World Bank's conclusion, quoted above, that,

> *"The Amerindians' laws and constitutional arrangements from colonial times to the present are not enforced and exist only on paper."*[13]

The 1989 Mining Act and the Mining Regulations contain both general and specific limitations on where mining permits may be issued and classify these limitations on the basis of the size of the mining operation—small-, medium- or large-scale. Multinationals hold large-scale and/or medium-scale permits.

Small-scale: Section 112 of the Mining Act prohibits small-scale mining on lands occupied or used by Amerindians. In practice, however, this is routinely violated.

Medium-scale: Form 5B of the Regulations prohibits medium-scale permit holders from operating on lands (including rivers) "held under title", including titled Amerindian lands. However, titles issued under the Amerindian Act exclude rivers and river banks up to 66 feet inland from the mean low water mark (sec. 20A(2)), which has permitted GGMC to issue permits within titled areas, while claiming that the areas are not Amerindian lands. The issue of titled lands is complicated further by the inaccurate maps of Amerindian lands used by the GGMC, when issuing permits to miners. This observation was also made in 1994 by two Canadian researchers who found that of the 52 maps of Amerindian lands available at the Department of Lands and Surveys, at least 25 had errors, of which 19 were substantial.[14]

Large-scale: There are no meaningful restrictions on large-scale mining. This is especially disturbing as over 35 multinationals, many of them holding large-scale permits, are presently operating in Guyana, often on titled and untitled Amerindian lands. GGMC predicts that large-scale permits will increase by 30% by the year 2000. Some mining companies have even made deals with logging companies to conduct exploration activities in logging concession areas, some of which encompass titled and untitled Amerindian lands.

The environment

Attention to environmental law and policy, especially as it relates to resource exploitation, is a relatively recent development in Guyana. The Environmental Protection Act (EPA) was enacted as recently as 1996 and the Environmental Protection Agency thereby created is in its infancy and barely functioning. In October 1998, the government announced the approval of bilateral support for developing an environmental unit within the GGMC. To be funded by the Canadian government, this initiative may hold some prospect for future regulation of the mining industry. At present , however, the absence of an adequate monitoring capacity has serious implications for the manner in which resource exploitation is presently being conducted in Guyana. Its impact upon the environment, and Amerindian health, lands and well-being, is substantial and negative. Amerindians are very concerned about these issues. An Upper Mazaruni resident, for example, made the following statement:

> *"We in the Upper Mazaruni solely live by way of fishing and hunting. We have experienced that there is no longer fishes in any great amount as before as a result of miners destroying the river banks and creeks on which we tremendously depend and live on. We set fish traps to catch fish but in vain . . . There is a serious water pollution existing in the Upper Mazaruni. The miners top-side destroy the rivers, causing the residents to suffer. The water we use for domestic purposes is no good right now. We feel the pollution is against health regulations."*[15]

The true nature of the environmental impact of mining, and its impact upon Amerindian rights, health and quality of life, has never been systematically assessed in Guyana. [16] The draft National Development Strategy states that *all* mining operations must be subject to an Environmental Impact Assessment (EIA) as provided for by the EPA. The 1992 Mining Regulations state that all holders of prospecting or mining permits must lodge environmental bonds with the GGMC to cover the costs of restoring the environment. Neither the requirement that EIAs be conducted nor the requirement that environmental bonds be posted are enforced in any way by the GGMC or the Environmental Protection Agency in the case of small- and medium scale miners. Multinationals conduct their own EIAs, which are submitted to the government for approval. But compliance is barely, if at all, monitored subsequent to approval. Furthermore, these assessments, particularly social impact assessments, are undertaken from a corporate rather than a local community perspective and are therefore flawed from the outset.[17]

There are thus serious problems with mining, both in policy and practice in Guyana, although enforcing existing legislation would go a long way to mitigating some of its negative impact on Amerindians. This would require a concrete demonstration of political will to address the problems by the relevant authorities, which appears to have been totally lacking to-date.

As noted, the Guyanese government recently concluded an agreement with the Canadian government to strengthen the capacity of the GGMC to address some of these issues. While the GGMC has stated that Amerindians must participate fully in this project, Amerindians have been entirely left out of the decision-making process. The government also announced that measures have been taken to strengthen the Environmental Protection Agency, including establishment of an Environmental Standards Committee to ensure that environmental standards are upheld. According to the new Director of the EPA, one of the priorities over the next year will be to develop *"environmental regulations and standards in the forestry and mining sectors."*[18] A memorandum of understanding between the Guyana Forestry Commission and the GGMC entailing cooperation with the Environmental Protection Agency

concerning proper monitoring of natural resource exploitation has also been concluded. All the while, mining continues unabated in Amerindian areas, causing serious environmental, human rights and social problems.

Canadian multinationals

This section discusses the operations of four Canadian companies operating in Guyana: Golden Star Resources, Cambior, Vannessa Ventures and Canarc. With the exception of the Omai mine, jointly owned by Golden Star and Cambior, and a few medium-scale operations, most of the multinationals are still in the exploration phases of their operations in Guyana. Exploration can, and does, cause environmental and social problems, and multinationals are operating on indigenous lands without permission from the communities, a serious offence in their eyes.[19] As noted by Joyce and Thomson writing for a World Bank Conference on mining and community relations,

> *"the culture of mineral exploration does not encourage good community relations. For exploration personnel the paramount issue is access to land, while for communities it is the protection of their traditional resource base."*[20]

Due to insufficient government resources and an absence of political will to regulate the activities of multinationals, the companies are essentially left to their own devices, often operating something like a "state within a state."[21] Discussing Golden Star's operations at Mahdia in the centre of the country, Professor Perry Mars of Wayne State University observes that

> *"Golden Star has been accused of contributing to the pollution of creeks, the main source of drinking water for the community . . . and operating like a law unto itself".*

Canterbury adds that

> *"Golden Star essentially co-opted local and regional government in the Mahdia area leading to 'heavy dependence', which 'severely curtail[s] the effectiveness of both central and local governments regarding regulation and control in the mineral sector.'"*[22]

These observations have also been made by indigenous peoples and others about other regions of Guyana.

Golden Star Resources and Cambior Inc.

Although registered in Canada, Golden Star is headquartered in the US city of Denver, Colorado. It has been described as one of the most *"aggressive Canadian juniors operating in the Guyana Shield."*[23] Its stock is held by its corporate officers, mutual funds and insurance companies in North America and Europe. Golden Star's primary focus is the *"acquisition, discovery and development of gold and diamond projects."*[24] It does not actually mine itself. Once commercially-viable reserves have been sold or properties abandoned, *"the company must continually acquire new mineral properties to explore for and develop new mineral reserves."*[25]

This constant acquisition of mining concessions, and the manner in which it conducts its operations, has led Golden Star into numerous conflicts with indigenous peoples and environmentalists throughout Guyana. This is not surprising given that the President of Golden Star, David Fagin, bluntly stated in 1994 that the company had looked specifically at the Guyana Shield (the area encompassing Suriname, Guyana, French Guiana, Venezuela and parts of Brazil and Colombia) because of *"increased pressure from environmentalists and the government in the USA."*[26]

Cambior of Montreal, meanwhile, formerly the state mining company of Quebec, is one of North America's top 10 gold producers. It has operating mines or proposed mines in Suriname, Alaska, Arizona, Chile and Mexico.

Junior mining companies are those that focus exclusively on exploration. Once a viable deposit has been identified, they enter into agreements with majors (companies that actually mine the deposit). Conflicts between junior companies, like Golden Star, and local communities occur more frequently than conflicts with majors, given the disproportionate number of juniors operating in most areas. Furthermore, the nature of junior operations is generally not conducive to respect for indigenous rights and community relations. These operations tend to be transitory; they do not consider communities to be stakeholders other than as labourers; they are driven by the need to produce results in order to survive, develop partnerships and finance further exploration and, therefore, focus on the technical aspects of the project rather than its wider impact and implications; and, finally, they are strongly oriented to fluid venture capital markets which play a major role in determining their policy and behaviour.[27]



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Above left: arial view of the Omai goldmine.

Above right: Cyanide- and heavy metal-laced sludge cascading into the Essequibo river after a tailings dam ruptured in August 1995.

In 1994, the government of Guyana granted Golden Star reconnaissance survey permits over four areas totalling 1.3 million hectares.[28] Two of these areas—Upper Mazaruni (474,200 hectares) and Wenamu (517,900 hectares)—incorporated at least 15 communities. These concessions were granted without even notifying the communities, who became aware of them only when they noticed Golden Star's planes conducting aerial surveys. Golden Star's activities allegedly included cutting lines through villagers' agricultural plots. The Amerindians of this area have made their opposition to the granting of mining concessions on or near their lands well-known to the government. In the words of a petition submitted to the late President Cheddi Jagan , dated 9 September 1994:

> *"We see such actions as a threat to our very survival as a people, as diminishing our right to a healthy life and culture and as a threat to our pristine and unspoilt environment."*

The petition implored the President to act so as to

> *"assist in saving us as a people from the evils of cultural alienation and genocide."*

In 1996, Golden Star and the Australian company, BHP, acquired two more large concessions covering 2.9 million hectares, one of which included over 35 indigenous communities. When villagers objected to Gold Star prospecting within the bounds of Santa Rosa village, company employees threatened violence, prompting villagers to write to the government and press demanding Golden Star's removal. In the letter, they stated that

> *"MultiInternational mining companies in general have a record of only providing temporary employment for some of our people but having long term negative impacts of undermining our culture and leaving permanent destruction and devastation of the animals and the environment on which we depend for our continued survival."*[29]

Golden Star is a partner with Cambior of Montreal in the Omai gold mine, which caused massive contamination of the Omai and Essequibo rivers, severely disrupting the lives of indigenous and other communities when a tailings dam ruptured in August 1995. The Omai disaster, which dumped 3-4 million cubic metres of cyanide- and heavy metal-laced sludge into the rivers, prompting the government to declare the region an "environmental disaster zone," was described by Golden Star's President David Fagin as nothing more *"than one of the many risks of doing business."*[30] The long-term health and environmental effects of heavy-metal contamination caused by the Omai disaster have yet to be evaluated.

The Dam Review Committee of the National Commission of Enquiry, established by the government to investigate the Omai disaster, found that the tailings facility failed due to

> *"inadequate application and execution of sound practice for design, construction, supervision and inspection that are well understood in current embankment dam and tailings dam technology"*

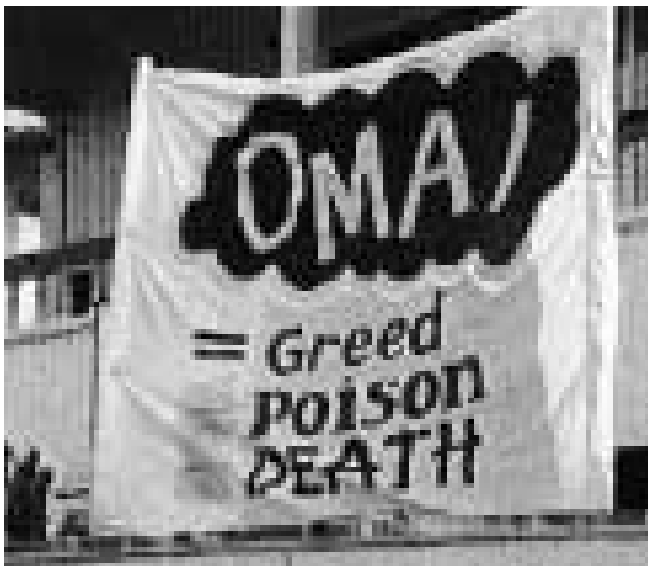
and that

> *"the Omai tailings dam as designed and constructed was bound to fail, its filter design was flawed and its construction deficient from the very start."*

The government of Guyana virtually ignored the recommendations of this Commission and, under pressure from the companies, did everything it could to ensure that the mine resumed



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Above left: Amerindian children playing in the Essequibo water. The toxic spill disrupted the livelihood of thousands of communities along the river.

Above right: Massive local communities' protests followed the disaster.

operations as soon as possible. In the words of the Guyana Human Rights Association, the Commission of Enquiry

> *"was commissioned reluctantly, conducted defensively and concluded apologetically, the Enquiry process demonstrated an embarrassing degree of servility on the part of the government of Guyana towards foreign investors."*[31]

Omai is still releasing tailings into the Essequibo River on a regular basis with the approval of the government. It has also been given permission to expand its operations into the surrounding area, notably the Quartz Hill and Eagle Mountain concessions.

On 13 May 1996, a Canadian NGO filed a US$69 million class action suit against Cambior on behalf of 23,000 Guyanese people damaged by the Omai spill in the Superior Court in Quebec. This suit was dismissed on the grounds that it would be best heard in Guyana, the locus of the event giving rise to the action. This occurred despite testimony that the courts in Guyana were not sufficiently independent to evaluate this case, especially given the strong economic interests of Guyana in ensuring that Omai's operations were not affected. A class action suit has also been filed in Guyana, but is languishing in the courts and numerous compensation claims remain outstanding. It is also unlikely that punitive damages will be assessed against Omai and the compensation awarded will be far less than would probably be awarded in a Canadian court.

The lives of the indigenous peoples living downstream from the mine were severely disrupted by the Omai disaster. A report commissioned by the Amerindian Peoples Association and the World Council of Indigenous Peoples stated, that while many Guyanese suffered,

> *"Amerindians comprise the poorest and most disadvantaged sector of Guyanese society and, therefore, disproportionately suffered its negative effects."*[32]

The report concluded that, contrary to Golden Star's David Fagin's assertion that *"only a few fish were injured by the Omai spill,"*[33] that it:

> *"completely disrupted normal everyday life, deprived many of their only means of subsistence and income, leading to hunger, malnutrition and deprivation and turned many communities into full time water collectors. The psychological or immaterial effects are, and potentially will continue to be into the future, equally as harmful. The river dominates the life and geography of the area and is the primary source of water, fish and transportation. Communities dependent on the river are now afraid of it or at least have serious concerns about its present and future safety. Fear for the children and their future was frequently expressed, especially in light of the unknown and unforeseeable consequences of the spill, particularly heavy metal contamination, that may not be evident for many years. In the words of one observer, 'the spill was not a catastrophe, but tens of thousands of catastrophes. One for each of the inhabitants who since the spill . . . have had their lives turned upside down'."*[34]

Vannessa Ventures Ltd.

Vannessa Ventures Ltd. of Vancouver, a junior company, has acquired a number of concessions in the vicinity of Kaikan and Paruima villages in the Upper Mazaruni, encompassing lands used by communities for hunting, fishing and farming. Kaikan is seeking a title extension over a large part of this area. Vannessa has also sought permission from the Kaikan Village Council

to acquire three concessions relinquished by Golden Star that cover all of its titled area. While Vannessa has stated that it will respect the decision of the community to give or withhold its consent to working on titled lands, no discussion has taken place about the rights of the community in the concessions outside of the titled area. This area was requested by Kaikan in the Lands Commission report and is used by both Kaikan and Paruima for hunting, fishing and farming. Both the GGMC and the Minister of Amerindian Affairs have pressured the community to grant Vannessa permission to work in their titled areas; the Minister of Amerindian Affairs even stated that mining on Amerindian lands was needed so that the government could repay World Bank loans.[35]

In November 1998, Vannessa acquired reconnaissance permits covering 2.1 million hectares in southern Guyana. These concessions encompass large areas of the ancestral lands of the Wai Wai, Macusi and Wapisiana peoples, who have made clear on numerous occasions their objections to Vannessa's presence.

Vannessa intends to survey for diamonds, gold, platinum, chromite, nickel and ilmenite and select up to 20 prospecting areas within the concession before the year 2001.[36] It also intends to

> *"initiate an aggressive exploration program on the Marudi (Guyana) gold deposit to expand the measured, indicated and inferred resource of approximately 600,000 ounces established by previous owner Sutton Resources; [and] conduct a feasibility study to determine the profitability of a 1,500 ton +/per day milling plant to produce gold from that portion of the Marudi Mountain deposit which is suitable for open pit/gravity recovery . . ."*[37]

The Marudi Mountain deposit lies less than 30 miles from the Wapisiana community of Aishalton and in close proximity to two rivers used extensively by the communities for fishing and other purposes. An Omai-type release would have devastating consequences for the communities and the eco-system. The likelihood of this happening may be greater than at Omai, should Vannessa impound tailings on the mountain itself. Also, the area is far removed from administrative centres, so it is unlikely that there will be any oversight of Vannessa's operations.

When questioned by the Amerindian Peoples Association about whether Vannessa intended to respect the rights of the communities to control their lands not presently titled, Vannessa responded that

> *"as a company we can not interfere nor voice opinions regarding the laws or rights of Guyana nor can we unilaterally decide to default on a legal contract between ourselves and the government of your country."*[38]

This is a common refrain throughout the mining industry. But in an era when the rights of indigenous peoples have gained greater currency at the international level, hiding behind the national legal system is no longer acceptable.

Canarc Resources Corporation

Canarc is a Vancouver-based exploration company with operations in Canada, Mexico, Suriname and, until recently, Guyana. Echo Bay Mines Ltd., another Canadian company, is one of its major shareholders. Echo Bay is best known for having received the largest ever fine under the US Migratory Birds Treaty Act for poisoning 900 birds with cyanide at its McCoy/Clove mine in Nevada.

Canarc's activities in Guyana, and its impact on indigenous peoples, have been severely criticised in the past. Indeed, the situation in Baramita, where it was prospecting jointly with Echo Bay, became so severe that UK-based Survival International issued an Urgent Action Bulletin initiating a letter writing campaign to pressure the government to intervene.[39] Survival noted that

> *"About 2500 Caribs live in this remote rainforest area practising shifting cultivation supplemented by hunting and fishing . . . Since many Carib communities there are scattered, large-scale mining would severely endanger their way of life."*[40]

Consistent with these warnings are many reports

> *"of the depredations wrought on the landscape by the road building activities which ignore Karinya [Carib] farms and drinking water sources . . ."*[41]

Golden Star, BHP and others are also exploring the Baramita area, most notable at "Five Stars," where Golden Star believes that it may have located a commercially-viable deposit. As in other regions of Guyana, there was no consultation with the affected communities, who did not know they were living in a mining concession until Canarc's employees arrived.

Suriname

Introduction

SURINAME is a small former Dutch colony on the north-east coast of South America. Until recently, its substantial tropical rainforests were regarded as one of the best prospects for long-term sustainable use and preservation.[1] These forests cover at least 80% of the country's surface area and are biologically rich in endemic species. They are also the ancestral home of five distinct indigenous peoples comprising up to 5% of the population—some 20,000 people—and six tribal peoples (Maroons) totaling between 10-15% of the population—40-60,000 people. Approximately one-half of the indigenous and Maroon communities are directly affected by mining activities while many others are indirectly affected.

Less than 30 years ago, Suriname was one of the most prosperous states in South America. But since then, a brutal military dictatorship, civil war, endemic corruption, declining prices for bauxite, and suspension of Dutch aid money have left the country with serious economic problems. In 1998, the World Bank described Suriname as

> *"one of the most distorted economic environments in the region, and economically one of the worst performers."*[2]

In recent years, the government has parcelled out vast areas of the rainforest interior to multinational mining and logging companies, claiming that this is needed to finance foreign debt and stimulate economic recovery and growth. For instance, in 1993, the government began negotiations with Asian logging companies for concessions totalling between three and five million hectares: almost two-fifths of the country. Contracts for these concessions were rejected in early 1997 after enormous international condemnation and pressure. Evidence has recently surfaced, however, that, despite government promises to the contrary, a large number of logging concessions have in fact been granted.

Long dependent on bauxite mining as its principal export earner (more than 70% of export earnings and 15% of GDP came from bauxite in 1998), Suriname had done little until recently to exploit the substantial gold deposits assumed to occur throughout the interior. This changed in 1991, when the government began inviting investment in the gold mining sector. The first company to arrive was the Canadian company, Golden Star Resources. It has been followed by many others, large and small. Analyses of contracts for both logging and mining operations have revealed, however, that the Surinamese treasury will receive few, if any, benefits and that the environment and indigenous and tribal peoples will suffer irreparable damage.[3] This is supported by the World Bank, which concluded in 1998 that state revenues from gold mining were close to zero.[4]

Indigenous and tribal peoples, whose rights to their territories and resources are not recognized in Surinamese law, have vigorously condemned this multinational invasion. They have demanded that all existing concessions be suspended and that no more be given until their rights are recognized in accordance with international human rights standards, and enforceable guarantees are in place in Surinamese law.[5]

The majority of mining activity in Suriname today is small-scale. As many as 10,000 Surinamese, many of them Maroons, and anywhere between 15-40,000 Brazilians are actively mining in Suriname's forests. Most of the Brazilians arrived between 1997-1999, after the government began issuing one-year permits for US$200. This massive influx of miners has resulted in immense social and environmental problems in the interior. Shoot outs between Brazilians and Maroons have been reported, Maroons have been killed and farming areas have been destroyed. An estimated 20 tonnes of mercury were released into the environment in 1998 alone while many waterways in the interior are now unfit for human consumption because of sedimentation and other pollution. Matawai Maroons, for instance, have to import water from the city because their rivers and creeks are now so polluted. They also report catching fish with soapy white eyes and tumors.[6] Wayana Indians say that they are unable to use the main river in their territory due to pollution. They report that the river water causes vomiting, skin rashes and diarrhea.[7] Canadian companies Canarc, Blue Ribbon and Golden Star are all working in the Matawai and Wayana areas, and, according to the local communities, contribute to pollution problems. Malaria and sexually-transmitted diseases have reached epidemic proportions in most areas of the interior. The situation has become so bad that parts of the interior are routinely referred to as the "wild west" by government authorities and the media.

Multinational exploration operations, none of which have proceeded to the actual mining phase to-date, have been equally disruptive. As stated by Chris Healy of the Organisation of American States' Special Mission to Suriname,

> *"Exploration activities in the large-scale mining sector are already having a profound impact on a number of communities located in the greenstone belt. One company [Golden Star Resources] has secured 1.2 million acres in prospective grounds, and there are 19 villages located on or near these properties. Some of the villages face an uncertain future, may have to yield their vital resources [agricultural land, minerals, lumber, game and fish] to major investors and face possible relocation. One of the villages, which is located in the middle of a gold exploration concession [Gross Rosebel], has been summoned to suspend all gold mining activities, the most important source of cash income for the village. The villagers have been informed that relocation is considered an absolute necessity and consultations have commenced to convince the villagers of the need to relocate."*[8]

More generally, Glen Gemerts, the head of Suriname's Geology and Mines Service (GMD), states that:

> *"Pre-existing local communities will be swept up in the mining development, of which relocation and traditional economic activities such as hunting, fishing, forestry and small-scale mining could be strongly influenced. In the bauxite and gold mining sector, the range of impact on the local communities varies from limited to extensive."*[9]

Multinational investment has also spurred rampant speculation by private citizens who obtain mining concessions—it costs about US$3 to obtain a large mining concession in Suriname—and then sign deals with companies to explore their concessions for a fee and percentage of potential royalties. Government officials and their supporters have especially benefited from this.[10]

This all takes place with minimal or no supervision and in complete disregard of the rights of indigenous peoples and Maroons to own and control their lands, to participate in and consent to decisions affecting them, to health and a healthy environment, and to cultural integrity. The government's attitude is summed up by the Minister of Natural Resources: when asked about indigenous and Maroon objections to logging concessions, he bluntly stated that

> *"they have to decide whether they want development or whether they want to remain backward people living in the bush."* [11]

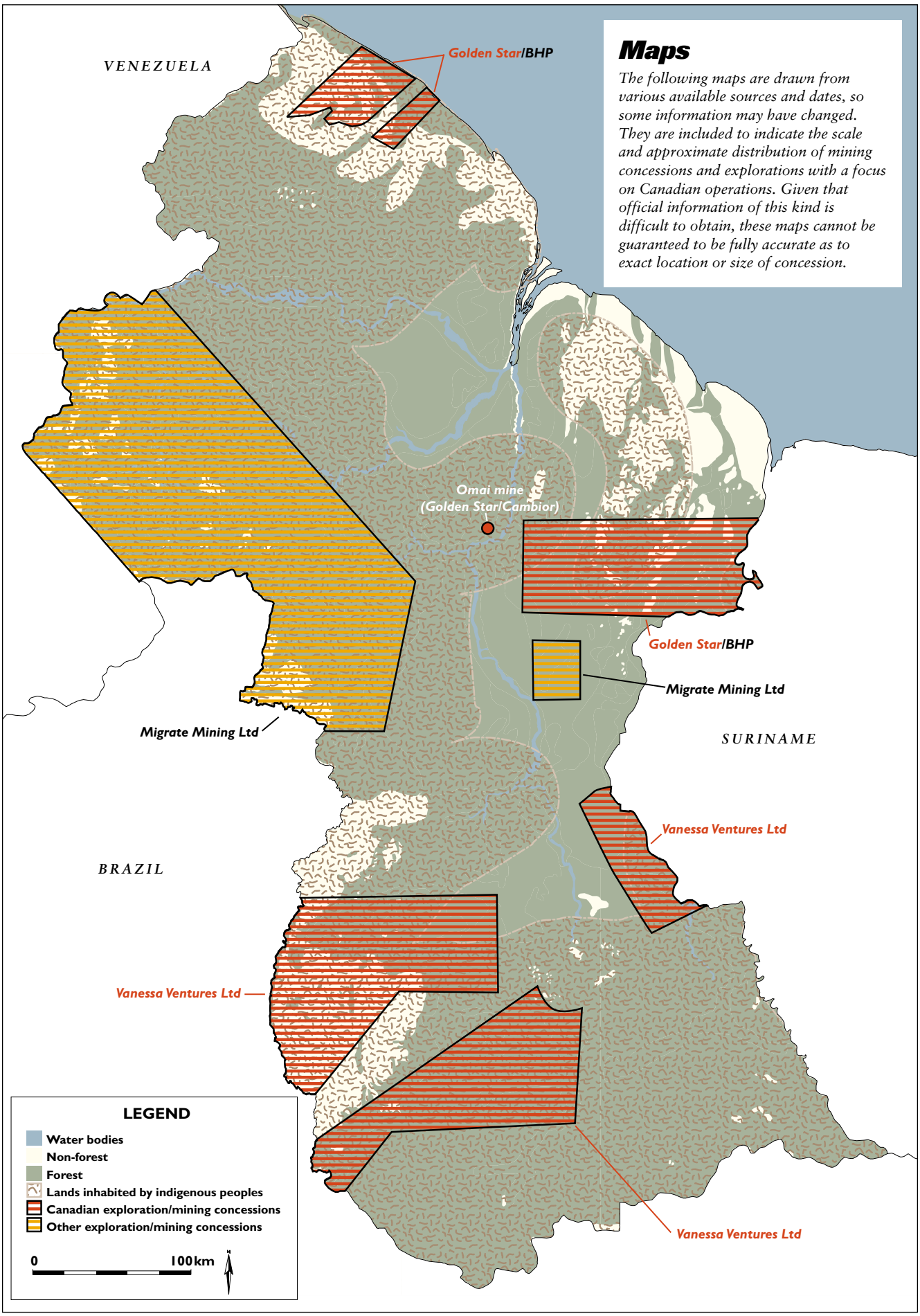
Indigenous and Maroon land rights [i]

Suriname is home to five indigenous peoples—Trio, Wayana, Akuriyo, Kalinya and Lokono—and six Maroon peoples—Aucaner or N'djuka, Saramacca, Paramacca, Aluku, Kwinti and Matawai. Maroons are the descendants of escaped African slaves who fought for and won their freedom from the Dutch colonial administration in the 18th century. Their freedom from slavery and rights to territorial and political autonomy were recognized in treaties concluded with the Dutch and by two centuries of colonial administrative practice. They succeeded in establishing viable communities along the major rivers of the rainforest interior and consider themselves, and are perceived, to be culturally distinct from other sectors of Surinamese society, regulating themselves according to their own laws and customs. Consequently, they qualify as tribal peoples according to international definitions and enjoy the same rights as indigenous peoples under international law.[ii] Within Suriname, however, recognition of their autonomy has been eroded in the past 50 years. The government now asserts that Maroons have no rights to their territories and, for the most part, refuses to recognize tribal authorities and law.

The rights of indigenous peoples and Maroons to own and administer their ancestral territories are not recognized nor guaranteed in any way in the laws of Suriname. Almost all land in the interior is presently classified as domain or state land and the Constitution vests ownership of all sub-surface and surface resources in the state.[12] Indigenous peoples and Maroons are legally considered to be permissive occupiers of state land, without effective rights and title thereto. As indigenous occupation and use are not classified as property in Surinamese law, Constitutional guarantees related to the right to property and compensation also do not apply. Maroons are especially familiar with the consequences of the law: more than 6,000 of them were forced off their lands without compensation in 1963 to make way for a hydroelectric dam and reservoir constructed to provide power for bauxite mining operations.

[i] This section describes the majority or official view of Indigenous and Maroon rights in the law of Suriname. Ongoing research has shown that the official view is legally incorrect in a number of important respects, in particular in relation to Constitutional guarantees concerning discrimination and equal protection of the law and the nature and extent of the domain principle (state lands), in particular that the state has private law title over state lands. Indigenous peoples and Maroons have never challenged the application of the law in the courts.

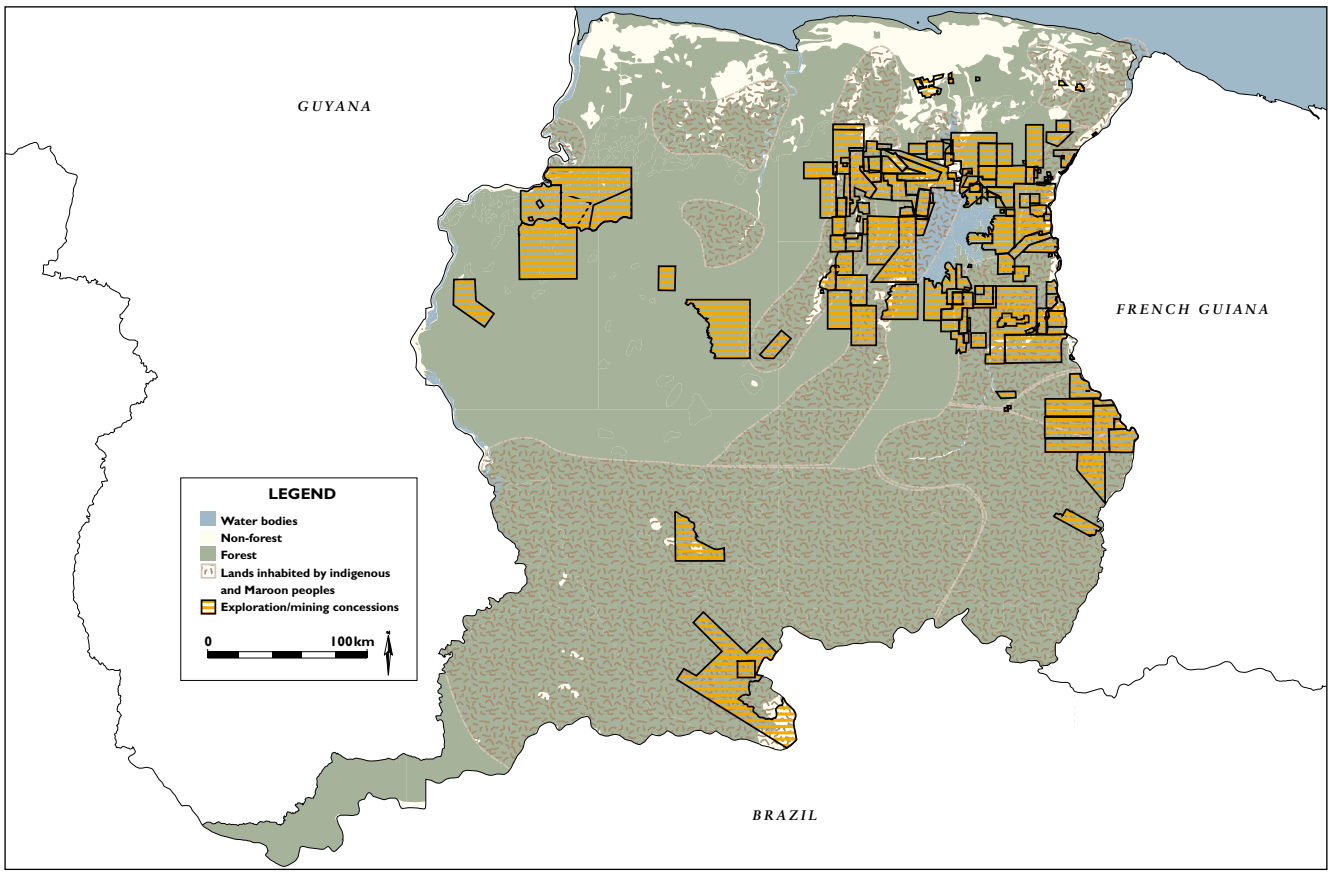
[ii] See, article 1 of International Labour Organization Convention No. 169 Concerning Indigenous and Tribal Peoples in Independent Countries 1989, which provides that "This Convention applies to: (a) tribal peoples in independent countries whose social, cultural and economic conditions distinguish them from other sections of the national community and whose status is regulated wholly or partially by their own customs or traditions or by special laws or regulations."



Maps

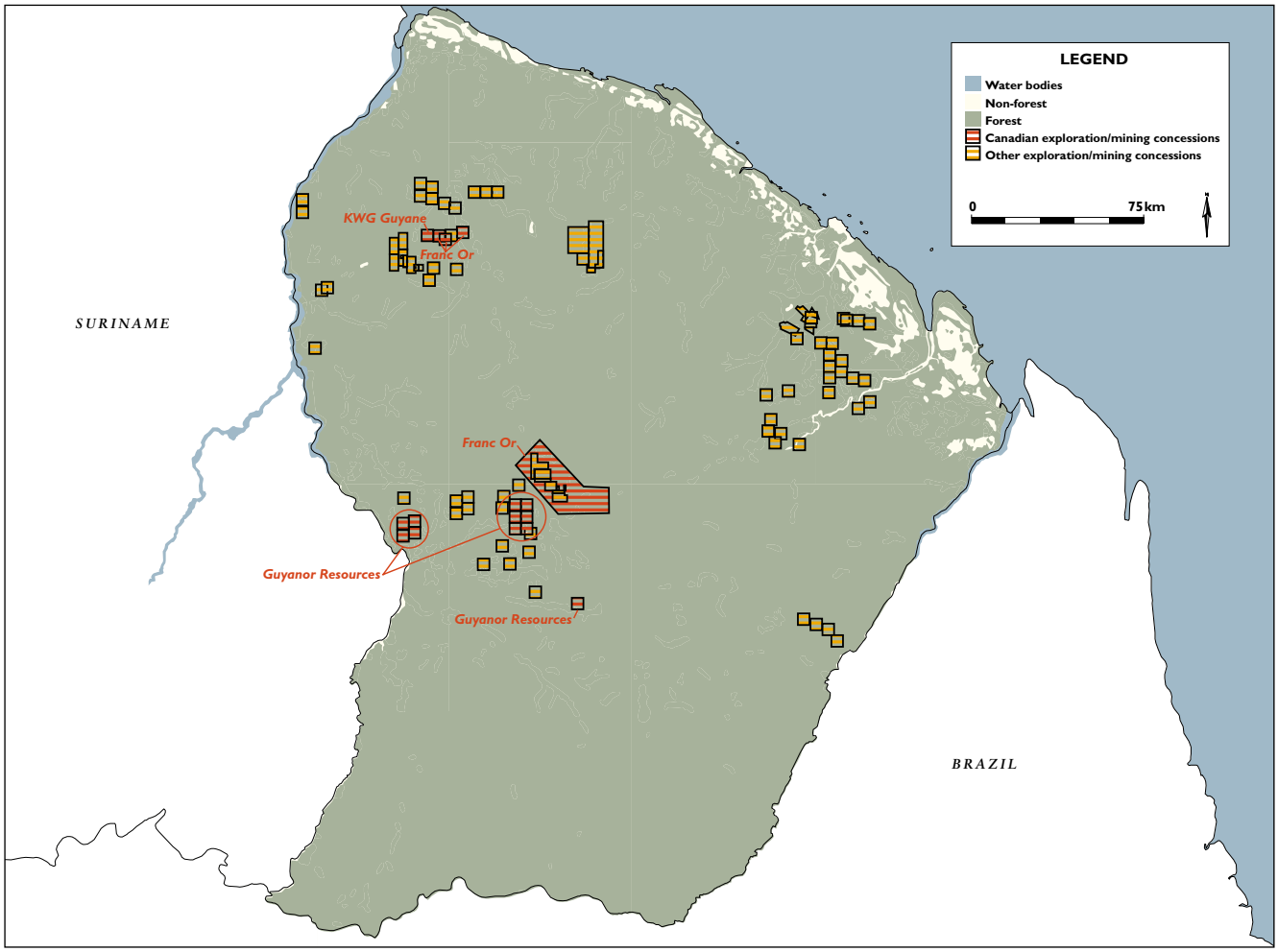
The following maps are drawn from various available sources and dates, so some information may have changed. They are included to indicate the scale and approximate distribution of mining concessions and explorations with a focus on Canadian operations. Given that official information of this kind is difficult to obtain, these maps cannot be guaranteed to be fully accurate as to exact location or size of concession.

Map 1: Guyana



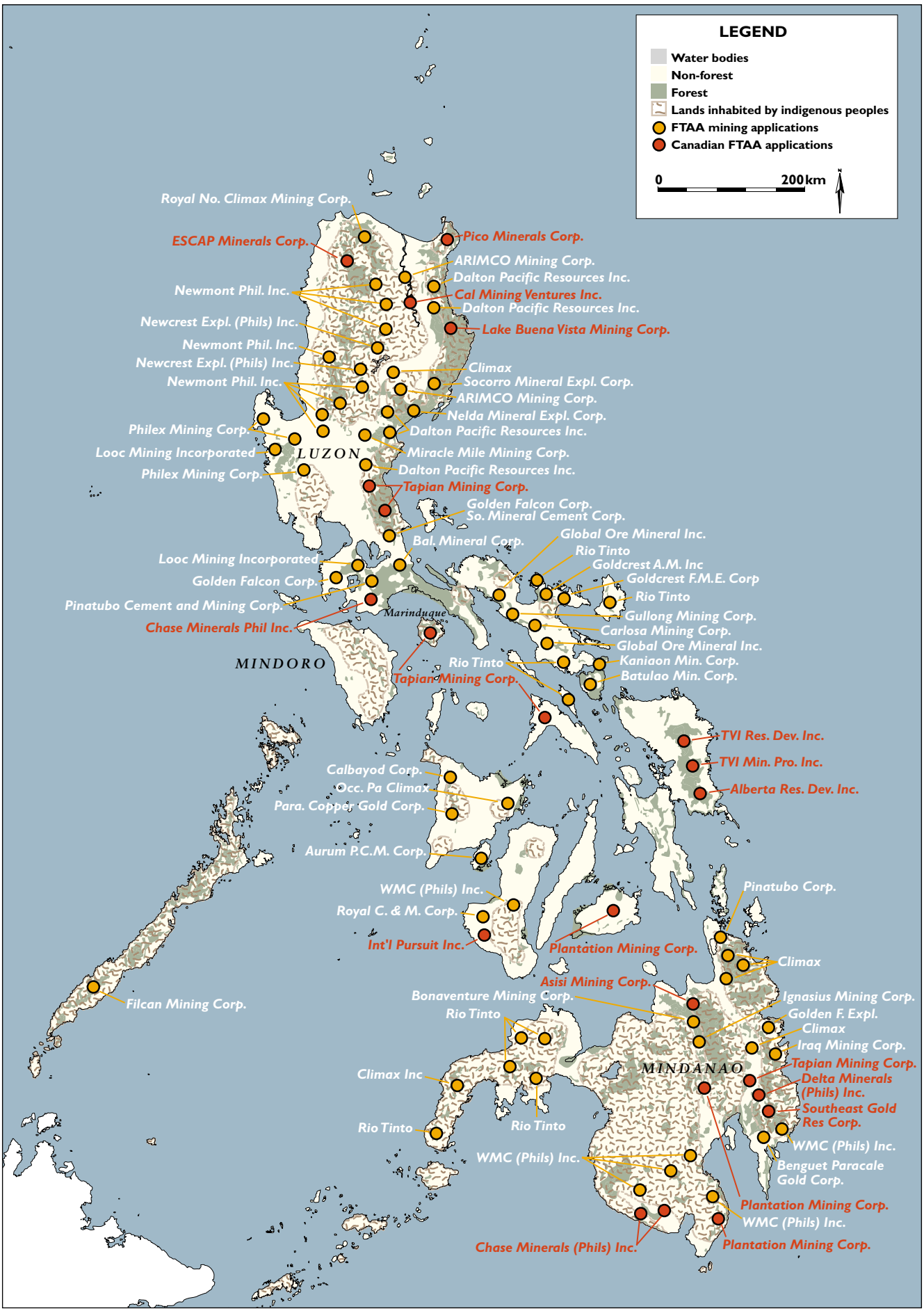
Map 2: Suriname

Due to the unavailabity of relevant data, Canadian companies' concessions have not been differentiated from others in the above map.



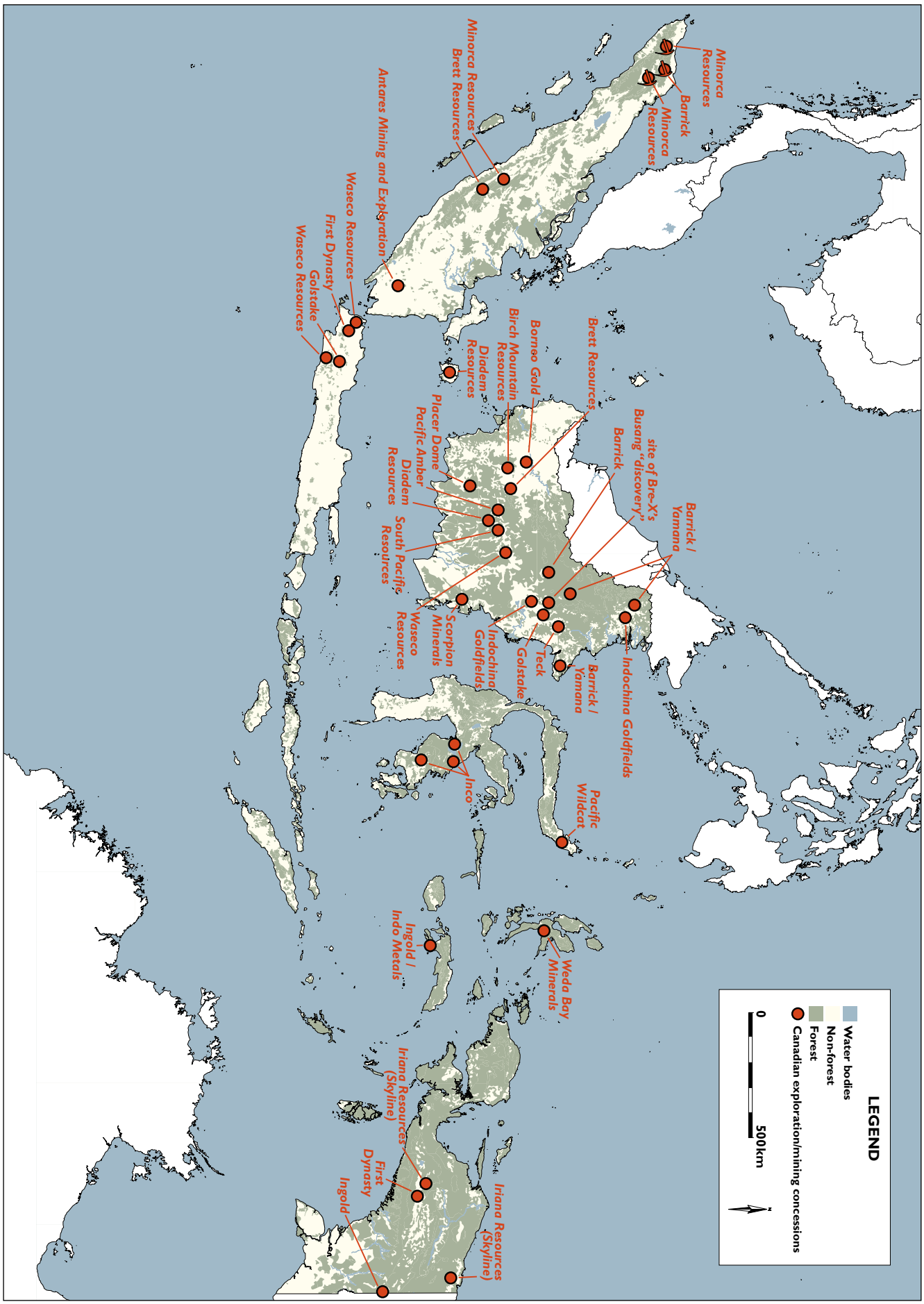
Map 3: French Guiana

Note: a map illustrating the lands inhabited by indigenous peoples is currently not available for Indonesia.



Map 4: The Philippines

This map shows Financial and Technical Assistant Agreement (FTAA) Applications for potentially large-scale mining projects by foreign companies. There are in addition numerous Mineral Production Sharing Agreements (MPSA) and Exploration Permits held by foreign and domesic companies totalling more than 1,000 in all.



Map 5: Indonesia

Notes: This map shows a partial listing of Canadian exploration and mining concessions. Indonesia is a major focus for mining expansion. Many other mining companies from around the world also have concession areas (not shown). A map illustrating the lands inhabited by indigenous peoples is currently not available for Indonesia.

The military era L-Decrees (the primary legislation in Suriname concerning state land) provide that indigenous and Maroon *"customary rights"* to their villages and agricultural plots shall be respected *"unless there is a conflict with the general interest."*[13]

> *"General interest is also to be understood as the execution of any project within the framework of an approved development plan."*[14]

Consequently, mining, logging, tourism and other activities classified as being in the general interest are exempted from the requirement that indigenous and Maroon customary law rights be respected. Furthermore, customary law rights apply only to indigenous and Maroon villages and agricultural plots and do not account for other lands occupied and used for hunting, fishing and other subsistence activities. This leaves a vast area of traditional territory beyond the pale of even the limited (and illusory) protections afforded by the L-Decrees.

In response to national and international pressure, the government of Suriname has conceded that something must be done about land rights—but it has not yet officially stated what exactly it will do. Various communities have reported that they have been threatened by government officials not to speak about land rights anymore or their basic services will be cut off. When pressed on the subject, government officials have (unofficially) stated that the government's solution to the problem will be to issue each individual a land title to the land on which their house stands.

Legislation and policy

Mining

Suriname's first mining law was enacted in 1882 and entitled the surface owner to exploit all sub-surface minerals.[15] This was not changed until 1932 and then only in respect to acquiring a permit to mine from the state—the rights of the surface owner to the sub-surface were unaffected. The 1882 Mining Ordinance was amended many times and, in 1952, all these amendments were consolidated into the 1952 Mining Act. But it was not until 1986 when the military regime promulgated the Mining Decree E-58 of 8 May, replacing the 1952 Act, that the state assumed sole ownership of sub-surface resources. This was followed a year later by Article 41 of the 1987 Suriname Constitution, which provides that

> *"natural riches and resources are property of the state and shall be used to promote economic, social and cultural development. The state shall have the inalienable right to take complete possession of the natural resources in order to apply them to the needs of the economic, social and cultural development of Suriname."*

By virtue of this principle, the state maintains the right to issue concessions anywhere in Suriname. Surinamese law does not require that indigenous and Maroon communities be consulted or even informed if a concession is granted on their ancestral lands. The law also fails to include any protections for their agricultural and other areas traditionally occupied and used. Article 35 of the 1952 Act stated that

> *"no concession shall violate the rights of the Maroons and Amerindians to their villages, settlements and agricultural gardens, which may be located in the allocated tract of state land."*

This was replaced in the 1986 Decree (art. 25b) by nothing more than the duty to list any affected communities on a request for an exploration permit, and there is no evidence that this requirement has ever been complied with or enforced by the GMD.

Most mining agreements concluded with multinationals supercede the Mining Decree if there is conflict between the two. Thus the mining agreements are approved by the National Assembly and become stand-alone legislation. The 1994 Mineral Agreement with Golden Star Resources was concluded in this way as it conflicts with provisions of the Mining Decree and certain tax laws. The protections for the Maroon communities located in the area covered by the Agreement are contained in Section 6.11, which provides that:

> *"The Private Parties will not unlawfully disrupt or bother the living conditions of the indigenous people, if present, established at the moment in Gross Rosebel. The Republic of Suriname will not require, encourage or allow additional settlements in Gross Rosebel during the time this agreement is in effect. Without prejudice to the preceding, the Private Parties will adapt to and urge their employees and contractors to respect the customs of the indigenous people c.q. to have these customs respected. If at any moment the relocation of a settlement turns out to be absolutely necessary, the Private Parties will use the utmost caution, with the consent of the Republic of Suriname and in consultation with the authorities of the settlement, to convince the inhabitants to move and will bear the expenses for totally adequate relocation programme, this in accordance with the indications of the responsible Minister."*[16]

Even these rudimentary protections are routinely violated, often with overt support from the government. Agreements made with bauxite companies do not contain any protections whatsoever. Suriname is presently in the process of revising the Mining Decree and adopting a new investment law to provide incentives and protections for international investment. Revision of the Mining Decree is being supported by international consultants, notably the British Geological Survey and others from Europe.[17] At the time of writing, draft versions of both proposed laws are unavailable for comment. What can be said about existing legislation, both generally and as related to mining, however, is that it is substantially substandard in comparison to indigenous rights in international law and to environmental standards.

Environmental law and regulation

Suriname does not have a comprehensive environmental law while monitoring capacity is non-existent. Environmental and Social Impact Assessments are not required, unless specified in a particular Mining Agreement; generally these assessments apply only to mining rather than exploratory operations. As stated by the Director of the GMD in 1997:

> *"In sum, there is no environmental legislation in effect with respect to mining, and in view of the rapid growth in this sector, such legislation is a must. Our country does not have the tools it needs to ensure an environmentally sound development of mineral resources, which can translate into sustainable development. Clearly the development of mineral resources in the near future will produce increased revenues. The value of this added bonanza can only translate into long term development, however, when the price of reclaiming the landscape and insuring [sic] safe living conditions in the country do not exceed the revenues . . . legislative instruments and administrative resources are urgently needed to achieve development with a net gain."*[18]

In 1997, the Surinamese government established the National Environmental Council (NMR) as a policy-making body within the Office of the President. A year later, the National Institute for Environment and Development of Suriname (NIMOS) was established, also under the Office of the President, to be the operational arm of the NMR. NIMOS is mandated to prepare and implement national environmental legislation and monitor compliance therewith. NIMOS and the NMR have jointly received a grant of US$2 million from the Inter-American Development Bank and the European Union to provide two years institutional support to NIMOS; to develop environmental legislation and regulations, including assessment and monitoring; and, to undertake four specific environmental studies. Since their inception, however, neither the NMR nor NIMOS have produced any appreciable results. Consequently, and despite official acknowledgement of the desperate need, Suriname remains without any form of environmental legislation or monitoring capacity.

Environmental legislation with reference to mining is just as paltry. The 1952 Mining Act does not contain any environmental requirements. It applies to all concessions granted before July 1986, including some of the bauxite mining concessions held by US-owned Suralco and South African/Dutch owned Billiton, and certain gold mining concessions held by Surinamese parastatal Grassalco (some of which have been transferred to multinationals). The 1986 Mining Decree, which applies to mining concessions issued after 1986, contains the following language pertaining to the environment:

> Art. 4—. . . *during operations all mining activities shall be carried out . . . using advanced technologies and appropriate equipment with due regard to . . . requirements to protect ecosystems.*
>
> Art. 16—*at the time the mining concession terminates, to the satisfaction of the Minister [of Natural Resources], the concession holder shall take all necessary measures in the interest of public safety, the conservation of the deposit, the restoration of the used area and the protection of the environment.*
>
> Art. 30—*the application for a mining concession shall also include a working plan in relation to the restoration of mined out land.*

Even these weak standards are not enforced. Suralco, for instance, voluntarily observes the internal environmental policy, guidelines and standards of its parent company, Alcoa, but is not required to report the results of environmental audits to the government.[19] Billiton uses Shell's internal policy and guidelines on the environment as well as certain international standards, such as those of the World Bank and the World Health Organisation (WHO) and is also not required to report to the government. Through the Gross Rosebel Agreement *(see below)*, Golden Star and Cambior have committed themselves to follow environmental legislation in force in the US State of California. Again, there is no oversight of company operations to ensure that they are in fact complying with these standards. Moreover, Surinamese authorities are unfamiliar with California's legislation and would have a hard time enforcing them even if inclined to do so. Also, questions must be raised about the suitability of California environmental standards for a tropical rainforest environment in which biodiversity is much higher and human dependence on the environment much greater.

Canadian companies

With the exception of the civil war years of 1986-1992 and just before, Canadian mining companies have been active in Suriname since the 1950s. Golden Star Resources was the first to return in 1991 prior to the formal conclusion of the civil war. It was subsequently joined by other Canadian companies—Blue Ribbon Resources, Canarc Resources, Cambior, Placer Dome, Savannah Resources and Attwood Gold—and by the Australian company Broken Hill Proprietary and Homestake from the US. These companies have acquired concessions in most regions of Suriname, totaling approximately 30% of the country's land. Some of these concessions are joint ventures with local companies: Golden Star with NaNa Resources, and Canarc with Wylap Development NV, for instance. All of them are currently engaged primarily in exploration; with the exception of Canarc and Wylap's medium-scale alluvial mine at Sara Kreek, only Golden Star and Cambior's proposed Gross Rosebel mine is close to entering into production.

Golden Star and Cambior: the case of Nieuw Koffiekamp

Less than one year after its arrival in Suriname in 1991, Golden Star obtained rights to the Thunder Mountain, Headley's Reef and Gross Rosebel gold and diamond concessions. In 1994, it concluded a Mineral Agreement with the government granting it exclusive rights to explore the 17,000 hectare Gross Rosebel concession. In 1996, Cambior Inc. of Montreal, Golden Star's partner in the infamous Omai mine in Guyana *(see pages 38-39)*, exercised its option to acquire a 50% interest in this concession. The Aucaner Maroon community of Nieuw Koffiekamp of some 500-800 people lies in the centre of the southern block of Gross Rosebel concession. Nieuw Koffiekamp was neither consulted nor informed about the granting of the concession and, to make matters worse, now faces forced relocation for the second time in 35 years because of mining operations. The community was forcibly relocated in 1963-64 to make way for a hydroelectric dam that powers a bauxite refinery; it was not compensated for its lost territory and suffered the serious social, cultural and economic problems normally associated with relocation.

In early 1995, Nieuw Koffiekamp complained that they were surrounded by armed guards and that their subsistence activities, including small-scale mining, were being restricted by Golden Star security personnel and armed police units, including the paramilitary Special Police Support Group working with them. They also complained that Golden Star personnel and the police were firing live ammunition to intimidate local people and keep them from areas in which Golden Star was working. These allegations were substantiated by Moiwana '86, Suriname's main human rights organization, which asserted that Golden Star, Cambior and the government of Suriname were jointly responsible for violations of at least eight articles of the American Convention on Human Rights.[20] In reaction to continued harassment, the community blocked the access road to the mining camp for five weeks when *Granman* Songo Aboikoni, a preeminent tribal leader, intervened, installing a Commission using the good offices of the Organisation of American States' Special Mission to Suriname.[21]

The Commission met 14 times over approximately one year, but disbanded after both the government and companies failed to respond to a draft agreement. Neither Golden Star nor Cambior participated formally in the Commission. After the October 1996 general election, the new government, which is directly related to the military regime of the 1980s, installed a *"Task Force on the Relocation of Nieuw Koffiekamp."* It was staffed by persons associated with the military dictatorship and considered loyal to the government; its mandate was to conclude a relocation settlement agreement. In doing this, it attempted to bring the community, the companies and government representatives to the negotiating table. A number of meetings were held between October and December 1996 in both the village and in the capital, Paramaribo, which were attended by senior company management, high government officials and community leaders. These talks broke down, however, as neither the government nor the companies were willing to consider options other than community relocation.

The companies submitted their Environmental Impact Assessment and Feasibility Study and the requisite forms for incorporating a Surinamese holding company in June 1997. They also submitted their preliminary applications for political risk insurance to the World Bank's Multilateral Investment Guarantee Agency (MIGA) and the Canadian government's Export Development Corporation (EDC). On 30 September 1997, a press release was issued stating that mine construction would begin in Nieuw Koffiekamp in December 1997. It noted that the government had appointed yet another Commission to resolve the Nieuw Koffiekamp "problem", and that a relocation plan had been submitted by the companies to the Minister of Natural Resources.[22]

Cambior's MIGA application requires a review of the EIA to determine compatibility with International Finance Corporation (IFC) environmental review standards. Both MIGA and IFC are part of the World Bank's private sector arm. IFC standards are weaker than standard World Bank policy guidelines (such as OD 4.20 on Indigenous Peoples and OD 4.30 on Involuntary Resettlement) which has led to MIGA's role in providing guarantees for

Below: Signpost leading to Golden Star Resources' Gross Rosebel concession reads "Entrance Prohibited. Concession Area Grassalco/Golden Star". The sign is less than 10 minutes from the Maroon village.



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Above: Aucaner Maroons from Nieuw Koffiekamp blocking the road to Golden Star Resources' mining camp.

environmentally- and socially-sensitive projects being subject to a great deal of scrutiny and criticism. That MIGA provides guarantees for the Omai mine in Guyana and disclaimed any responsibility for the 1995 disaster has only increased this scrutiny. In response to NGO inquiries concerning Nieuw Koffiekamp, MIGA stated that it will employ ODs 4.20 and 4.30 in its environmental review process and has requested that Cambior provide information on these issues. How MIGA will apply these standards, however, remains to be seen. In theory, holding MIGA accountable to even weak World Bank standards may require substantial modifications of project design and operating criteria that would ameliorate some of the negative effects.

In the words of the OAS Special Mission Report (UPD Report), the dispute between Nieuw Koffiekamp and the mining companies is:

> *"a conflict fueled by contrasting ideologies rooted in two worlds very far apart from each other: Maroon and corporate culture. Land is of primary importance to the Maroons. The social, political and economic system of Maroon society is deeply rooted in clan ownership of territory, and the threat to what Maroons consider traditional tribal territory is regarded with great seriousness. From the perspective of the large-scale mining companies, having full title and unlimited access to concessions under development is a condition sina qua non for developing a mine."*[23]

In other words, the dispute is based first and foremost on competing notions of land and its utility and significance, as well as competing notions of rights to and control over land and resources. In Suriname, the state claims ownership of all unencumbered land and all subsurface and surface resources. Based on this claim, it granted rights to Golden Star and Cambior, who now assert these rights against the community of Nieuw Koffiekamp. Maroons state that their rights of ownership and, importantly, control of territory and resources are based upon the struggle for freedom concluded in sacred treaties, the 1992 Peace Accord, and international human rights law, and would incorporate a full understanding of all the aspects of their relationship to that territory and attendant resources and a recognition of their laws pertaining thereto. International law, to a certain extent, has recognized the Maroon perspective and is moving towards a more complete recognition.

While Cambior has stated that it intends to negotiate with the community to convince it to move, the community is being subjected to a great deal of pressure from other parties of which Golden Star and Cambior are aware.[24] For instance, a paid consultant of Golden Star has been accused of bribing key leaders of the opposition to the mine and members of the village council; in 1996, the former military dictator and present leader of the ruling National Democratic Party, Desi Bouterse, publicly threatened to kill the community's representative

after he returned from a lobbying trip to Washington, DC. Villagers also report that Bouterse's bodyguard threatened that the community would be driven off its land by the army and the police if they did not agree to move. The role of Bouterse, described by the Inter Press Service as *"the government's special Advisor on th[e mining] project,"* is most troubling.[25] Military rule was characterized by gross and systematic violations of human rights, and Maroons were targeted and suffered greatly during the civil war. Consequently, Bouterse's involvement has played a substantial role in intimidating the community and stifling opposition. Golden Star's paid consultant, meanwhile, is a close associate of Bouterse and, according to a company employee, is used as an intermediary between the company and Bouterse and as a negotiator with local communities.

At the time of writing, the proposed mine at Nieuw Koffiekamp has been put on hold indefinitely pending approval of the feasibility and environmental impact studies, approval of permits and economic concessions demanded by the companies—and an increase in the price of gold on the international market.[26] No agreement has been reached with the community. According to Golden Star, when and if the price of gold rises, relocation remains the only option for dealing with the community.[27]

Golden Star elsewhere in Suriname

Golden Star has a number of other concessions in Suriname, both in its own name and optioned from local companies. One of these, a large 200,000 hectare concession optioned from NaNa Resources, a Surinamese company with a close relationship to Golden Star, is in the ancestral territory of the Trio people near the border with Brazil in the far south of the country. NaNa Resources was granted the concession, which also includes a nature reserve, after community leaders signed a statement approving of Golden Star's activities in 1995. Community leaders claim that they were tricked into signing the letter by Golden Star and NaNa and that they did not understand its terms or implications.[28]

They also claim that when they tried to have the letter and concession cancelled, they were threatened. These allegations were substantiated by the Association of Indigenous Village Leaders in Suriname in January 1997, which found that the letter originally read to the community was different than the one they ultimately signed.[29] Golden Star and NaNa again enlisted the help of Bouterse to silence the community. Golden Star technicians also threatened to bring Bouterse to the indigenous community of Casipora when they complained about Golden Star's presence on their land.[30] The technicians said that if the villagers did not cooperate, they would bring Bouterse, *"who would put them in line like he had with troublesome [Trio] Indians in Kwamalasemutu."*[31]

Golden Star is also working in the Lawa area of south-east Suriname in the 194,000 hectare South Benzdorp concession. This area is the ancestral territory of indigenous Wayana and Aluku Maroons. Community leaders from Kawemhakan, the main Wayana community in the area, state that they were tricked into signing an agreement with the company, which gave them gifts as a reward. They say that they do not understand what the company is doing and they want their land rights recognised so as to provide security for present and future generations of Wayana. The community is complaining that pollution of their water sources is causing vomiting, skin rashes and diarrhea. Some of this is caused by the activities of small-scale miners, but the community ascribes part of the blame to Golden Star and the other companies working in the area.

The Wayana and Aluku are surrounded by mining concessions. On the Suriname side of the border, their villages are completely enclosed by a solid block of concessions held by Canarc (until recently in partnership with Placer Dome), Blue Ribbon Resources, Golden Star, NaNa Resources, Grassalco and NV Goliath. Canarc, Golden Star and Blue Ribbon have all announced that their concessions contain economically-feasible deposits that they will seek to exploit. In the case of Canarc, the company estimated the deposit at five million ounces at least, which would make it one of the largest gold mines in South America.

On the French Guiana side, Golden Star and Cambior are seeking to mine the Yaou and Dorlin deposits. Both Suriname and French Guiana have discussed or are presently discussing building a road link to the area to provide infrastructure for industrial mining. If all of these mines go into production, the Wayana and Aluku may be faced with four to six open pit mines on their lands, all of which may use cyanide to process the gold. The effects will also be felt by Aucaner Maroon communities concentrated downstream of the area along the Marowijne (Maroni in French) and Tapanahony Rivers. Golden Star and BHP jointly hold a concession that covers all the Aucaner villages on the Tapanahony as well. These companies have been responsible for some of the worst industrial mine disasters in recent history: the dam burst at the Golden Star/Cambior Omai mine and BHP (OK Tedi) *(see feature 'OK Tedi: a poisoned legacy', page 8)*. Given the complete absence of regulation, not to mention the failure to recognise indigenous and Maroon rights in Suriname, the likelihood of another disaster is high. This area is heavily populated, and therefore, the consequences would be devastating.

French Guiana

Introduction

FRENCH GUIANA is located on the north-east coast of South America, bordered by Brazil to the south and east and Suriname to the West. Approximately 90% of its 91,000 square kilometres is covered by tropical rainforests—the only area of tropical rainforest under European jurisdiction. Following a referendum in 1946, French Guiana officially became an Overseas Department (Département d'Outre-mer—DOM) of France and was renamed the Department of Guyane (Département de Guyane), equal in status to other departments in metropolitan France. Under the French Constitution, French Guiana is subject to the same laws as metropolitan France, including any modifications (mining laws included) that may be adopted to reflect historical, cultural, geographical and economic characteristics.[1] European law has also been imported under the same conditions.

The population of French Guiana is around 140,000 people who are predominantly of African descent, known locally as Creoles. Europeans, indigenous peoples, Maroons, Chinese and Vietnamese Hmong make up the remainder. Indigenous peoples from six different nations comprise approximately 4% of the population: Kalinya, Lokono, Palikur, Wayana, Emerillon, Wayapi; the largest nation is coastal Kalinya, or Galibi as they are known in French Guiana. Aucaner, Aluku and Paramacca Maroons live along the border with Suriname. It is not known exactly how many Maroons live in French Guiana since official statistics count them together with others of African descent, but they are estimated to comprise around 5-8% of the population. Indigenous and Maroon rights are not adequately recognised in French law, nor is their identity as distinct cultural collectivities.

Heavily supported by French subsidies and social benefits, French Guiana has the highest standard of living in South America. Mining is of minor importance to the economy, although gold production has increased substantially in recent years from 300kg in 1984 to 2,500kg in 1994. The local Creole elites are heavily promoting mining and road building as a means of generating local wealth. Road building is often justified solely in terms of 'catching up' with the rest of France. Small-scale gold and diamond mining is now causing serious environmental damage and social problems in western French Guiana. Additionally, a number of multinational mining companies with dubious reputations have been granted concessions throughout the country. Indigenous peoples and Maroons have strongly objected to these activities within their territories to no avail.

The rights of indigenous peoples and Maroons

French law has applied an overly strict interpretation of the principle of equality found in article 2 of the French Constitution to deny recognition of indigenous peoples and Maroons' identity beyond the status of French citizenship.[2] Although certain measures have been enacted that seek to guarantee certain rights in French Guiana, this denial of identity has precluded the adequate recognition of indigenous and Maroon rights, leaving them without adequate guarantees for their territories and distinct cultures.[3]

The French Constitution provides for the application of laws to overseas departments (départements d'Outre-mer) in a form appropriate to local circumstances. Thus two decrees have been issued that apply to indigenous peoples and Maroons in French Guiana (although the latter is of general application insofar as it relates to traditional forest-dwelling communities of any ethnic origin). Even taken together, these two decrees do not amount to the granting of proper land rights to indigenous peoples as per international law. The first decree established a *zone d' interdiction* within which indigenous peoples only were permitted. The objective was to keep non-indigenous people out of traditional indigenous territories of the southern third of the department and thereby protect them from unwanted interference and exploitation.

The second Decree (no. 97-267 of 14 April 1987) sets out the rights of forest-dependent, traditional communities existing in state lands.[4] Article R.170.56 recognises a collective usufruct right to hunt, fish and in general conduct all activities necessary for the subsistence of the communities. According to article R.170.58, if these communities have constituted themselves as an association or a society, they may request a freehold title to an area of state lands. This title shall be of limited duration with an option to renew for additional periods. Article R. 170.57, meanwhile, states that the use rights set out in R.170.56 cannot be exercised within areas designated for mineral exploration or exploitation and in protected areas, thereby substantially limiting these rights.

Proposed mining activities will impact on both indigenous peoples' territories and a proposed National Park. The location of the proposed National Park has been tied to prospects for gold mining. Rival proposals for the location of the Park have been discussed: miners and officials seek to have the Park located in the southern third of the department; while Indigenous organisation, NGOs and others would prefer that it be in the central third (which is the richest in biodiversity), with the southern third declared as an Indigenous territory. So far mining interests have prevailed.

Mining and the environment

Mining in French Guiana is administered by a number of agencies including the *Direction Regionale de l'Industrie, de la Recherche et de l'Environnement* (DRIRE), the Ministry of Industry and the *Conseil d' Etat*. Other agencies, such as the Department of Archaeology and Culture (DRAC), also have regulatory authority to the extent that mining activities affect their area of competence. French mining laws were revised in 1996 to facilitate investment and shorten administrative procedures rather than to introduce environmental and human rights guarantees.[5] A bill applying the new mining law to French Guiana has been passed but is not yet in force. Consequently, the previous mining code, which dates back to the 1950s and relates little to environmental let alone social concerns, still applies.

Two types of mining title, permits and concessions, may presently be obtained in French Guiana. An exploration permit grants the exclusive right to prospect and explore for specified minerals. There are two types of exploration permits, the most common of which is the 'B' class. 'B' permits are valid for renewable two-year periods and cover 25 square kilometres. 'A' class permits are valid for five years and can be renewed at least once for an additional five-year term and cover a larger area than 'B' permits. Exploitation permits, meanwhile, are granted for four years and are automatically renewed if production is ongoing. A concession confers an immovable right but not ownership of the land for up to 50 years.

Canadian mining companies

SMALL-SCALE MINING and a certain amount of mechanised mining has occurred in French Guiana since the mid-19th century. Although a few multinationals were active in the department during 1990-91, it was not until 1993 when the Bureau of Mines (BRGM) made public its geological inventory, that multinational interest peaked. The South African giant, Gencor, and Canadian company Golden Star Resources were the first to arrive. They were soon followed by US companies Homestake and Asarco, Canadian companies KWG, Franc-Or and Cambior, and Australian giants Broken Hill Proprietary (BHP) and Western Mining Company. The most recent arrival is the world's largest mining company, Rio Tinto (RTZ), which entered into a joint venture with Golden Star's local subsidiary, Guyanor, in 1999.[9]

Golden Star/Guyanor and Cambior

All Golden Star's interests in French Guiana are held through its local subsidiary, Guyanor Resources SA. As of June 1999, Guyanor has interests, directly or through its subsidiaries in six concession areas: the St-Elie (joint venture with Asarco), Yaou, Dorlin (joint venture with Cambior), Paul-Isnard (joint venture with LaSource, formerly with Asarco), Eau-Blanche and Dachine (joint venture with RTZ). All of the concessions are in the exploration stage, except Yaou and Dorlin on which feasibility studies are now being conducted.[10]

The Yaou and Dorlin concessions, comprising 12 class B exploration permits covering 250 square kilometres were acquired in 1993 from BHP and the Bureau of Mines (BRGM). Guyanor and Cambior presently plan to develop two operating mines at Yaou and Dorlin both of which would use cyanide heap leaching and would be operated by companies responsible for one of the worst mining disasters ever in South America *(see Omai, Guyana, page 38)*.[11] The concessions lie 17km and 60km east of the predominantly Maroon town of Maripasoula; both are located near tributaries of the Maroni river. For the mines to operate, Guyanor and Cambior require a road link to Yaou and Dorlin *(see feature 'A mining road to Maripasoula?', page 54)*.

Close to Maripasoula, moreover, is the 25 square kilometre Dachine diamond concession. Originally explored by Guyanor in a joint venture with BHP, the concession has been held by a joint venture with RTZ since June 1999 which

> "*includes not only the Dachine property but the whole of French Guiana [denominated as Area of Interest]. Under the terms of the agreement, Rio Tinto can earn a 70% participating interest in the joint venture by funding exploration and development expenditures up to a total of US$17 million or by reaching a decision to commence with the development and mining of any diamonds within the Area of Interest, whichever comes first.*"[12]

According to Roger Moody, RTZ "*is the world's most powerful mining corporation; with joint venture mines in forty countries*."[13] In the course of these global operations, RTZ has been vigorously condemned by indigenous peoples from Australia to Madagascar, from North and Central America to Kalimantan, by environmentalists and Presidents, and has even been the subject of United Nations General Assembly Resolution and a UN-sponsored court case.[14] Its operations have resulted in forcible relocation, severe environmental contamination, destruction of rainforests, destruction of sacred sites and, in one case, full-blown armed conflict on the island of Bougainville.[15] Its attitude towards indigenous peoples' land rights was summed up by the Chairman of its largest subsidiary, Conzinc Rio Tinto of Australia (CRA), at RTZ's annual meeting in 1984:

> "*The right to land depends on the ability to defend it.*"[16]

Its proposed operations on Lihir Island in the South Pacific, include dumping over 400 million tonnes of wastes into the sea, which in its own words, will destroy over seven kilometres of pristine coral reefs and a major bird nesting site.[17] This is Golden Star's partner for operations covering all of French Guiana.

In 1995, Guyanor, applied for several exploration permits in the Kaw Mountains. This area was slated to be a national park and has been listed by the French government as an important wetland site under the RAMSAR Convention, an international environmental treaty for the protection of wetlands. The RAMSAR Convention, ratified by France in 1986, requires that listed wetlands must be subject to a protected area management plan and prohibits activities that may change the ecological integrity of the wetland. The Kaw wetland system also contains one of the few remaining viable, breeding populations of the endangered Black Caiman which is threatened with extinction and is listed under the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES).

French law prohibits mining in or near nature reserves. But the original Kaw nature reserve proposal has yet to be implemented and a second proposal that excludes certain areas which might be mined is being circulated. The mayors of the local communities Regina and Roura are demanding that the nature reserve proposal be implemented and the entire Kaw Wetlands watershed be protected. US company Asarco has acquired two gold concessions in the area and has dug numerous trenches 1,200m long, one metre wide and four metres deep. After strong protest from environmentalists, Asarco withdrew some permits two years ago and redrew the boundaries of others to avoid the most sensitive areas. Guyanor in contrast forged ahead.

French law requires that archaeological sites discovered during construction must be reported to the Department of Archaeology and Culture (DRAC) and all construction must cease until research can be done on the site. DRAC became suspicious of Guyanor's activities in 1994 because no reports of archaeological sites were filed during road construction in an area known to contain many probable sites.[18] DRAC asked the office of the Prefect, the highest civil servant in French Guiana, to write to Golden Star to request information. He received no response nor did he receive a response to two additional letters written in 1996.[19] No further action was taken either by DRAC or by the Prefect. Guyanor has since relinquished its interests in the Kaw area due to financial limitations.

To acquire a mining permit or concession, a company must obtain a Personal Mining Authorization (*Autorisation Personnelle Minière* (APM)). Under an APM, a company is granted the right to hold a specified number of permits. These permits and concessions do not cover vast areas as they do in Suriname and Guyana, although contiguous concessions may, and are, held by the same company. Indigenous peoples and Maroons are not specifically protected by the mining law. Local authorities, however, which in some cases include indigenous and Maroon elected officials, must be notified and consulted about mining activities, although they cannot veto proposed operations within their jurisdiction. European law also imposes a duty on the state to provide the public access to information concerning the environment.[6]

Environmental protection and regulation in French Guiana are governed by a series of French and European laws. The Ministry of the Environment is the primary administrative authority in France and is responsible for monitoring compliance with an array of environmental legislation. In French Guiana, the DRIRE is responsible for both mining and environmental protection. As noted by the Netherlands Committee for IUCN,

> "*There is no independent department that conducts an environmental impact assessment for the proposed [mining] activity. History has learned that this often results in a policy which is completely dominated by industry and where environmental issues are largely ignored.*"[7]

Under French law, an application for a mining concession must be supported by studies, called "*Mémoires Techniques*."

A mining road to Maripasoula?

THE MINING INDUSTRY faces a major problem in French Guiana: with the exception of the coastal highway, there are no transportation links to most of the mining areas. As stated in Guyanor's 1995 Annual Report,

> "*The road network serving the interior is practically non-existent; if one of our research sites is to become a functioning mine the creation of a 150 km all-weather heavy-duty road would be necessary. Such a road would be an important step in the development of the province of French Guiana thus allowing the creation of new activities such as agriculture and eco-tourism. Such a road should be constructed in partnership with the province, with France and with Europe. If such assistance isn't possible the road would be financed only by the [mining] project and its status would thus pose problems.*"[20]

Guyanor clearly envisages that French and European taxpayers will foot the bill for this road.

Currently, there are two proposals for road construction both leading to Maripasoula, a town of approximately 15,000 mostly Maroons, situated on the border with Suriname in the centre of mining activity on both sides of the border. The first proposes to upgrade an existing link to the Creole town of Saul in the centre of the department and then cut an extension through the forest to Maripasoula. The second proposal is to cut a road from St. Laurant du Maroni through to Maripasoula. Other than having roads for the sake of having roads (to catch up with metropolitan France), the only reason for striking a road through the forest to Maripasoula is to facilitate industrial mining operations that will last only as long as the mineable deposit lasts. Guyanor's statement about opening the area for agriculture and eco-tourism was characterised by French Guianese environmental organisation, Le Pou d' Agouti, as displaying

> "*total ignorance of the agricultural potential of Amazonian upland soils . . . not to mention the fact that eco-tourists prefer to travel by foot or canoe than along mining roads.*"[21]

These roads will cut through the centre of French Guiana's rainforest, opening up the whole region to industrial mining and subjecting indigenous and tribal communities in both French Guiana and Suriname to many external influences, all of which are potentially destructive. Despite opposition from environmentalists and indigenous and other communities in the forest, construction of the road has been included in official planning for the years 2000-2005.

The history of road building through tropical forests in general and the Amazon in particular has been characterised by severe environmental damage and massive violations of indigenous peoples' rights.[i] The environmental impacts include, among others: widespread deforestation, soil and river bank erosion, sedimentation, pollution of surface and ground water, loss of habitat, death of humans and fauna due to motorised traffic, separation of functional ecological areas, disruption of hydrological cycles, increases in malaria due to problems with cross drainage and water pooling, increased hunting, unsustainable agricultural developments, and increases in exploitation of non-renewable resources.[22]

While French and European law require environmental impact assessments for public and private projects to address direct and indirect impacts on human beings, flora and fauna and a range of environmental indicators that may identify and mitigate some of the more negative effects of the proposed road, one question remains: Can this road be justified at all for a few years of mineral production by the likes of Golden Star, Cambior and RTZ?[23]

[i] BR-174 alone in Brazil was largely responsible for the decimation of the Waimiri-Atroari people.

The studies must provide a comprehensive framework for the development of each project, including environmental impact assessments (EIAs). These EIAs are conducted by the companies themselves and are reviewed and approved by DRIRE.

European Union (EU) environmental law imposes substantial obligations on member-states and provides individuals and organisations with enforceable remedies if the law in question is not implemented or complied with or if individual rights recognised therein are violated. European environmental laws are generally issued as binding Directives. While most of these EU Directives do not specifically apply to mining, they do address many of the attendant environmental issues relevant in the context of French Guiana.

In most cases, both small-scale and multinational mining operations have failed to meet the standards set by these EU Directives: mercury pollution is a prime example. The Directive on major accident hazards in certain industries also raises a number of interesting questions in connection with proposed multinational mines, especially when the operators have been responsible for accidents *(see Omai, Guyana, page 38)*. Under this Directive, if dangerous substances such as cyanide are to be used, emergency plans must be drawn up by both the operator and the state, and the public must be informed of the risks and emergency plans.[8] Under recent amendments to this Directive, the public is to have access to safety reports and may give an opinion on modifications. EU member states were required to adopt national legislation implementing this Directive by February 1999; whether France has done so and made it applicable to French Guiana is unknown.

The European Union and policies on indigenous peoples: the pot calling the kettle black?

EUROPEAN POLICY concerning indigenous peoples has primarily been directed towards informing its external development assistance programmes. Strong criticisms of the treatment of indigenous peoples by developing countries have been issued, most often in the form of European Parliament resolutions.[ii] Strong statements have also been made about conservation and sustainable use of tropical forests.[iii] Little attention has been paid, however, to the situation of indigenous peoples within the European Union itself, especially in terms of recognising and enforcing indigenous peoples' rights in member states.

In response to an oral question made in the European Parliament about the destruction of the rainforest in French Guiana and indigenous (Kalinya/Galibi) land rights in 1992, the Commission stated that

> "*The forest of French Guiana is the sole example of tropical rainforest on the territory of a Community Member State, and, as such, all Community laws and policies apply to it.*"[24]

The issue of indigenous lands rights was ignored. Compare this statement with the "*Resolution on action required internationally to provide effective protection for indigenous peoples*", adopted by the European Parliament in 1994, which states that the Parliament:

> 4. *Solemnly reaffirms that those belonging to indigenous peoples have, just as any other human being has, the right . . . to culture; this* right to a separate culture *must involve the right to use and disseminate their mother tongue and* to have tangible and intangible features of their culture protected and disseminated and to have their religious rights and sacred land respected;
>
> 7. *Declares that indigenous peoples have* the right to common ownership of their traditional land *sufficient in terms of area and quality for the preservation and development of their particular ways of life . . .* ;
>
> 12. *Considers that the European Union . . . should take all possible steps to ensure that . . .* the activities of commercial undertakings *do not, either directly or indirectly, adversely affect the rights of indigenous peoples; . . .*[25] (emphasis added)

The Council of Ministers, the primary legislative body of the EU, recently issued a resolution on indigenous peoples.[26] This resolution provides, among others, that

> *"indigenous peoples have the right to choose their own development paths, which includes the right to object to projects, in particular in their traditional areas."*[27]

If, as stated by the Commission, *"all Community laws and policies apply"* to French Guiana, what has happened to the application and implementation of, among others, the policy statements above? The French government may cling to its strict interpretation of article 2 of its Constitution, but it should not be permitted to ignore its international obligations. Similarly, the European Union needs to address seriously the situation and rights of indigenous peoples within its own territories. Failure to do so not only amounts to ongoing human rights' violations, but also undermines European credibility when critiquing the behaviour of others. Moreover, the forests of French Guiana present Europe, and France in particular, with the opportunity and challenge of providing a sustainable model of rainforest use and conservation while fully respecting the rights of the indigenous peoples, Maroons and others who live in and from the forest. In the words of the founder of the French Guianese environmental organisation, Le Pou d'Agouti, Kris Wood,

> "*We should privilege the development of sustainable models and spurn the misguided economy-directed disasters that are being demonstrated so 'ably' in neighbouring countries. After all with the combined resources of Europe behind it French Guiana should be able to both save its forests and provide for its growing population. If sustainable development is possible anywhere here is the place.*"[28]

[ii] See, for instance, A2-92/88 (Sarawak), B3-0119/90 (Brazil), B3-1659/90 (Canada), B3-1627/90 (Mali & Niger), B3-1150-91 (Ecuador), B3-1181/91 (India), B3-0850/92 (Colombia), B3-1265/93 (Brazil) and B3-0057/94 (Mexico).

[iii] See, for instance, A2-124/89 (Amazon region), A3-0812/90 (Amazon), A3-0231/90 (conservation of tropical forests) and B3-1696/93 (Sarawak).

The Philippines

Centuries of mining

THE PHILIPPINES is rich in gold, copper, chromite, silver, nickel, cobalt and other minerals.[i] Coal and limestone are also abundant. According to advertisements placed in the *Financial Times* in 1989 *"The Philippines is far more densely mineralised than Australia, the tonnages are bigger and the terrain is largely unexplored. The place is wide open."* The country is estimated to be second only to South Africa in its average gold reserves per square kilometre.[1]

Filipino peoples have traded gold and copper with China for at least 1,000 years. Hunger for gold and other minerals was a key motivation for the colonisers of the islands. When the Spanish arrived in the sixteenth century they called on their theologians to rationalise their greed, who duly concluded that God in his wisdom had placed gold beneath the lands of the heathen Igorot[ii]

> *"for with gold as bait, which is a magnet to (civilised) men's hearts, they [the mountains] will become well populated, as the mountain ranges of Peru and Nueva Espana have been populated—and even Hell itself."* [2]

There was a massive clash of values between the colonisers and the indigenous mine owners. Even today the Ibaloi and Kankanai, of the high Cordillera in the northern Philippines, see gold mining and panning as integral to their culture. Access to the mines and the distribution of the gold are still carefully socially controlled and surrounded with ritual observance and community sharing.[3] The Spanish looked at these Filipino attitudes to the management of their gold with exasperation.

> *"More or less gold is found in all these islands . . . However they do not work the mines steadily but only when forced by necessity . . . they do not even try to become wealthy, nor do they care to accumulate riches."* [4]

Spanish colonial rule was replaced, in 1899, by an occupying US army. The new colonisers preoccupation with gold provided continuity. US colonial laws were immediately enacted allowing US citizens to make mining claims. They and the industry prospered. However, when the Philippines finally gained its independence from the USA after World War II, it restricted foreign ownership of mining interests to 40%. As in most other countries with significant mineral resources, mining was regarded as a strategic industry requiring national control.

In the 1970s, mining interests "benefited" from the martial law regime of President Ferdinand Marcos. Under his regime, wages were held down (to P8/US$1 per day in 1976). Workers were strictly controlled and working and living conditions for miners and their families were shameful.[5] Marcos owned a share of virtually all the major mining projects and companies. The Canadian company, Placer Dome, began operating in Marinduque *(see page 59)* in 1969, during Marcos' presidency.

By the 1980s, however, under-investment and decline characterised the mining sector. Whereas mineral exports accounted for 21.66% of total exports during 1970-74 and for 21.33% in 1980, over the 1986-95 period they accounted for only 7.25% of total exports. In 1988, the Philippines was still ranked seventh in the world in terms of gold production, but by 1997 had dropped to 17th place. In 1988, it was the 10th largest copper producer, but had fallen to 22nd place in 1997.[6] The decline of corporate mining since the1980s and a more general economic decline led to a rapid growth in the small-scale mining sector. To the traditional indigenous practitioners were added the landless, rural unemployed and others displaced by militarization. A study financed by the Asian Development Bank (ADB) estimated coservatively that there were 300,000 small-scale miners throughout the country in 1993.[7] An accurate figure is difficult to arrive at because virtually all the country's small-scale miners operate effectively outside the law. However, figures from the Central Bank of the Philippines show that by 1995 almost half the country's substantial gold production was coming from small-scale miner sources.

For the World Bank, the Philippines has always been a favoured trial ground for its new initiatives. It was Bank-dictated policies in the 1960s and 1970s that pushed the country into a pattern of spiralling debt, making it one of the world's leading debtor states (external debt currently stands in excess of US$44 billion). Bank policies have also contributed to the decimation of the Philippine environment.[8] Thus when the World Bank turned its attention to mineral exploitation in the 1980s, it came as no surprise that the Philippines once again became its laboratory. The country's debts gave the Bank extraordinary influence over

[i] According to the 1991 Annual Mining Review (by The Mining Journal), the Philippine mineral endowment were: gold—2nd in the whole world—4 oz/sq. km; copper—3rd in the whole world—0.75 lb./sq. km.; chromite- 6th on the whole world—0.57 lb./sq. km.

[ii] Igorot is the general term for the indigenous peoples of the northern Luzon Cordillera mountains.



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Tapian mine pit with roads, 1989. The green acidic water in the bottom of the pit was drained off to the Boac River through a tunnel from 1975-1991.

Philippine policy. A series of internationally financed "aid" initiatives from the World Bank, ADB, and US, British, German and Japanese governments sought to promote foreign investment interest in the Philippines' rich mineral resources.[9] The most directly influential of these projects were those of the United Nations Development Programme (UNDP), backed by the World Bank, and ADB. UNDP fielded senior staff as advisors in the Department of Environment and Natural Resources. Promotional materials and events followed, including seminars in Toronto, London and Manila.[10] The ADB package focussed directly on liberalising national legislation.

In 1993, the Philippine government took the extraordinary step of holding a workshop at the industry's Asian Mining Congress at which it solicited mining companies' "help" in drafting its proposed new mining legislation. The advice was duly given, and the legislation, which became the Mining Code, enacted by March 1995. The new law was predictably, even embarrassingly, partial to foreign companies; the *Mining Journal* described it as "*among the most favourable to mining companies anywhere*".[11] A stampede of applications to explore or mine in The Philippines followed. One hundred and fifty-three Finance and Technical Assistance Agreements or FTAAs have been lodged. As of end 1997, 85 remain. More than 1,000 of the more established Mineral Production Sharing Agreements (MPSA) have been lodged and as of end 1997, 104 MPSAs are in operation.[12] According to Ibon[iii] these claims assign corporate rights to explore 40% of the country's land area. A significant proportion of the claims are for the mountainous interior where virtually all the country's remaining forested areas and ancestral lands of indigenous groups are concentrated.

Indigenous and other grassroots groups began to express their concern as helicopter fly-overs and land surveyors entered their territories. The fuse that ignited nationwide protest on the Mining Code, however, was the 1996 Marcopper tailings spill which remains the worst mining disaster in Philippine mining history. Since then, spontaneous outpourings of protest have continued and grown. The Catholic Bishops Conference of the Philippines and the Protestant National Council of Churches have both issued strongly worded calls for the scrapping of the Mining Code. The Director of the Bureau of Mines, Horacio Ramos, has described the industry as "under siege".[13]

Foreign mining companies established the International Mining and Exploration Committee (IMEC) to maintain their lobby on the Philippine government. As opposition mounted, IMEC members threatened to withdraw from the country if the government department responsible, the Department of Environment and Natural Resources (DENR), did not speed up the processing of their claims. They threatened to transfer to Indonesia or elsewhere where governments, it was claimed, were more receptive. The Philippine Chamber

[iii] Ibon Foundation Inc., Philippine based Databank and Research Center.

of Mines took out paid advertisements in the national press as a means of damage control and tried to regain lost ground by stressing the vital role of mining in a modern society. On one occasion, a national consultation of indigenous groups was picketed by mine workers and their families, financed by their employers.

Indigenous rights

Indigenous rights and resistance have become the biggest stumbling block to the advance of the Philippine mining rush. The 1987 post-Marcos Constitution for the first time recognised indigenous peoples' rights to ancestral lands. It also banned certain practices now closely linked with the new wave of mine claims, including the existence and use of private armies and para-military groups and the 100% foreign control of strategic industries. But while the ancestral land rights provision languished without enabling legislation or sufficient funds to identify and demarcate ancestral territories, the Mining Code was subsequently conceived, internationally financed and brought into law. However, indigenous militancy within the Philippines and the international advance of indigenous rights led to the inclusion in the Code of the requirement that companies consult with and gain the consent of indigenous communities to mining plans within their territories.

In practice, such demands for consultation place little constraint on companies. Community and NGO reports indicate that mining companies are often assisted by government agencies including especially the National Commission for Indigenous Peoples (formerly the Office of Cultural Communities) and the DENR in conducting sham "consultations" where only positive images of mining are presented.[14] To undermine resistance to proposed mining, indigenous communities and their leaders have been bribed with food, community halls, "community liaison" jobs for tribal decision-makers, promised social services and inflated claims of future jobs in mining. Where opposition continues, leaders and even whole communities have been sidelined or ignored and more compliant "leaders" recognised.[15] New organisations have been formed and older ones disbanded by government agencies.[16] Where all else fails endorsements for mining in indigenous areas may come from nearby municipal officials rather than tribal leaders[17] while some companies have simply misreported the results of consultations claiming support where none existed. Companies are also reported to have bought local politicians and press support through gifts, sponsorship of junkets and financial links to press clubs.[18] However, these dubious practices are now increasingly being exposed due to local vigilance backed by fact-finding missions and strong national and international actions and support.

More than four years after the Mining Code became law, only three Finance and Technical Agreements (FTAAs) have been openly granted. A legal challenge was made to the constitutionality of the FTAA arrangement by B'laan tribal leaders, the Legal Rights Center (Friends of the Earth) and civil society figures. Another delay was caused by the final passage in November 1997 of the Indigenous Peoples' Rights Act (IPRA). All mining applications were suspended for six months while new structures and procedures to manage indigenous rights issues were put in place. The IPRA promises land rights recognition including some control over mineral development. However, the requirement that companies' mining claims be

1995 Philippine Mining Code

The Mining Code of 1995 replaced previous legislation on the issue.

The Finance and Technical Assistance Agreement (FTTA) component is designed to attract foreign companies to large projects and has proved the most controversial section:

- 100% foreign ownership of mining projects is now allowed (previously foreign companies were restricted to a maximum 40%).
- A foreign company can lay claim to an area of up to 81,000 hectares on shore or 324,000 hectares off shore. Philippine-based companies are by contrast restricted to 8,000 hectares in one province and 16,000 hectares within the country. The legislation seemed to allow a company just one FTAA claim. In practice, however, foreign corporations have been allowed to put in multiple applications and have numerous subsidiaries.
- Companies can repatriate all profits, equipment and investment and are guaranteed against expropriation by the state. Excise duties have been cut from 5% to 2%, and tax holidays and deferred payment are allowed until all costs are recovered.
- Losses can be carried forward against income tax.
- Easement rights commit government to ensuring the] removal of all "obstacles" to mining including settlements and farms
- Companies secure the rights to log forest within their concession, and are promised priority access to water resources.
- Companies are given the right to sell gold directly onto the international market without intervention from the Central Bank..
- Mining leases last 25 years with an option of a 25-year extension.
- Companies can also access numerous other fiscal incentives under the Omnibus Investment Code.

ratified as acceptable by the National Commission for Indigenous Peoples (NCIP) offers miners a way forward. The NCIP, like its predecessors, is the administrative arm of government for tribes rather than a group representing indigenous peoples to the government. Its' commissioners are appointed by the President, not by the indigenous peoples. Most indigenous groups mistrust the agency and fear this provision strengthens the hand of the miners. Nonetheless, the mining industry has found even this weak legislation unacceptable.

In 1998, Isagani Cruz, a former Supreme Court Justice, in close association with the mining industry, challenged the constitutionality of the IPRA on the grounds that the state, not indigenous groups, should have sole ownership and control of mineral wealth. This challenge has led the government to freeze all ancestral land claims, whether the subject of mineral conflicts or not, until the matter is resolved. Conflicts are intensifying. In the Mountain Province, Bontoc people have fired on military units they believed were paving the way for the entry of miners. A Canadian mining engineer working for Arimco Climax (an Australian firm), in Nueva Vizcaya was shot at and killed when riding a helicopter. On Mindoro island, mass protests disrupted meetings to advance the mining plans of Mindex, a Norwegian/Canadian company. In Canatuan, Zamboanga, the people established, in August 1999, human barricades against the entry of a Canadian mining company, TVI. These barricades have been maintained in defiance of court injunctions and assaults including kicking, beatings and arrest by armed police and companies' guards.



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Protesters in Manila, 1998. Philippine and international protesters demonstrate in Manila against the Philippine Mining Act and multinational mining companies.

Canadian companies in the Philippines

Canadian mining companies known to be active in the Philippines include Placer Dome, TVI Pacific, International Pursuit, Chase Resources, Philex Gold, Fenway Resources, and Crew Development Corporation, which is currently in negotiations with the Norwegian company Mindex, who are active in Mindoro. All are the cause of serious local concern and opposition. The cases chosen below, covering the activities of one major and one junior company, are therefore merely examples of problems affecting many parts of the country.

Placer Dome

When the Canadian mining giant Placer Dome Inc (PDI) (as Placer Development Ltd.) first became interested in the mineral potential of the small Philippine island of Marinduque in the late 1960s, the 960 square kilometre island some 160km south of the capital, Manila, was relatively unscathed by mining. But in the almost 30 years that PDI part-owned (39.9%) and managed two copper mines of the Marcopper Mining Corporation in Marinduque (1969-1996), the island has suffered increasingly deleterious environmental and social impacts. Marinduque is now severely denuded of its forests; its two main rivers are poisoned; one bay is filled with 200 million tons of tailings and another coast is heavily affected by tailings from a massive spill in 1996.[iv] The two huge open-pit mines located high in the central mountains are surrounded by a network of wide dusty roads, leaking toxic waste dumps and, incongruously on this small underdeveloped island, a nine-hole golf course. Recent extensive health studies conducted by the Philippines Department of Health in two of the three affected municipalities confirmed that children and adults are suffering from heavy metal contamination.

Between 1969 and 1994, Placer Dome was the only mining company involved in the Marcopper joint venture. The Philippine government, the other major partner, facilitated Placer's applications to use environmentally-unsound practices, especially during the dictatorship of President Marcos. After Marcos's removal in 1986, it was discovered that he personally owned half the shares in Marcopper behind four front companies.[v] The government's share in Marcopper was privatised in 1994, but PDI personnel remained in the key management positions of President and Resident Manager. PDI played the major role in the day-to-day management of the mines and their financing and provision of technical expertise. Yet Placer has refused to accept responsibility for causing the Boac river disaster, the worst environmental mining incident ever suffered in the Philippines, and for the mounting environmental and social problems along the Mogpog River and in Calancan Bay.

[iv] Marinduque has been recognized to be one of the most severely denuded provinces in the Philippines. While this is not solely due to mining, mining has greatly contributed to Marinduque's loss of virgin and secondary forests both in the immediate area of the mines and through roads and ill-contained waste causing die-back.

[v] Then-President Ferdinand Marcos hid his almost 50% ownership of Marcopper Mining Corporation behind the following front companies: Performance Investment Corporation, Independent Realty Corporation, Mid-Pasig Land Development Corporation, Fairmount Real Estate, Inc. (PCGG document, May 30, 1994).



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Above left: Pipes pumping tailings into Calancan Bay, 1989. These pipes are some five kilometres out to sea at the end of a causeway made up of tailings. The dumping of tailings went on day and night for 16 years and eventually filled the bay with some 200 million tons of tailings.

Above right: Abandoned pipes in Calancan Bay, 1998. In 1991 the Tapian Mine closed operations. The causeway of tailings in Calancan Bay have been left to disintegrate spreading tailings and rusting pipes into the bay.

Calancan Bay: mine waste dump, hearth of resistance

The communities of Calancan Bay were the first victims of Marcopper's careless waste disposal. The degradation of Calancan Bay took place over 16 years. Between 1975 and 1991, the Placer Dome management of the Tapian mine dumped some 200 million tons of mine waste into the shallow and coral rich waters of the Bay via a 14km pipeline. The tailings were discharged onto the water's surface 24-hours-a-day. As the bay filled up, the pipes were extended seawards resting on the waste which eventually formed a causeway some five kilometres in length and 500m wide. This juts out into the middle of the blue waters of the bay resembling a grey landing strip. Today, some 80 square kilometres of corals and seagrasses are smothered in tailings. The causeway was left uncovered for 14 years and even today contains large uncovered areas. Ocean breezes lift these tailings in great swirling clouds that darken the sun and rain down on the rice fields, open wells, and houses of villages along Calancan Bay. Local people call this their "snow from Canada."

The metal pipes carrying the tailings from the mine regularly broke. As the pipes traversed mainly remote forest and upland agriculture areas, which had little or no road access, a broken pipe was not usually repaired for several days. Large areas of upland forest, watersheds, and small-scale farm plots have thus been devastated.

PDI never sought, nor received, the consent of Calancan Bay villagers to use the bay as a dump site and in fact proceeded despite their vigorous protests. Moreover, PDI has steadfastly denied causing damage to the bay, fishing or people's health, and has never paid the villagers compensation for their losses. In 1988, President Cory Aquino ordered the company to spend P.30,000 (US$1,200) a day to rehabilitate the bay, but payments continued only until mid-1991. The rehabilitation that has been carried out is woefully inadequate.[19]

Although the dumping has now ended, the causeway continues to form a serious threat to the bay and its inhabitants. The structure has not been effectively stabilized and, when battered by the sea, tailings have been freely crumbling from the end and along the edges ever since the dumping stopped in 1991. At the end of the causeway, the rusting pipes have now become submerged as the bed of tailings on which they rested has eroded from under them.

Before the tailings started being pumped into the bay, most of the 15,000 villagers living in some 12 villages made a living from fishing for a couple of hours every other day. Fishing provided both family food and a product to sell in the market for income. The turbulence caused by the day and night surface dumping of tailings drove away many species of fish and, as ever greater portions of bay floor were covered, fishing became all but impossible.

Times of hope

In 1981, the then National Pollution Control Commission (NPCC) ordered Marcopper to *"cease and desist"* dumping in the bay. However, then-President Ferdinand Marcos overruled the order and allowed the mine to continue operating *"without restraints."* His intervention was based on an appeal from the mine's president, PDI's Garth Jones, who dismissed reports of *"destruction of coral, fish loss, etc."* as *"slanderous"*.[20]

The ousting of Marcos signalled a second period of hope for the villagers, who renewed their campaign. On 11 November 1986, the NPCC instructed Marcopper to transfer its tailings disposal system within three months. Later, the newly-established Pollution Adjudication Board (PAB) noted that Marcopper had been operating without a valid permit



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Three men and wheelbarrels: 1989—

These fishermen of Calancan Bay are standing on the tailings causeway as tailings swirl round them and block out the sun. These men were hired by Placer Dome to spread top soil on the causeway after an order from President Aquino in 1988 forced the company to start rehabilitating the causeway.

since 10 February 1987, and on 11 April 1988, ordered the company to cease operations immediately and to stop dumping mine tailings into Calancan Bay.

Marcopper's management responded eight days later by shutting down the mine completely without any prior warning, thereby shutting off the electricity (produced by the mine's generators and sold locally) to the entire island. This led to massive protest rallies on the island and threats to those who had challenged the company. Eventually, history repeated itself as the mine's president, PDI's John Dodge, appealed directly to President Aquino to overrule the cease and desist order. The company threatened to take legal action against the PAB ruling. To the dismay of the fishermen, Aquino granted the company the right to continue dumping on the condition that it started rehabilitation of the bay. In the midst of these traumatic events, John Dodge made public statements that the fishermen of Calancan Bay "*…have not suffered in any way because of the tailings disposal system…*"[21]

These denials of damage to Calancan Bay contradict PDI responses to the massive Boac river disaster. In Boac, a significant portion of the three to four million tons of tailings that spewed into the Boac River flowed out to sea near the mouth of the river. PDI accepted impact assessments showing that corals were covered by the tailing and that turbulence had driven away fish, and proceeded to compensate the affected fishermen. Yet it consistently denies that 200 million tons of mine tailings have destroyed livelihoods in neighbouring Calancan Bay.

Facing reality

Throughout the period of dumping in the Bay, environmental impact assessments have repeatedly recognized the potential for heavy metals to leach into the Bay from the exposed sulphide tailings in the causeway and called for metal testing of biota, soil and water in the Bay. Yet in discussions with concerned groups in Canada, PDI officials have to this day denied the possibility of such leaching.

In March 1997, a team of researchers, under Dr. Fellizar of the University of the Philippines at Los Banos, finished a report that clearly identifies the socio-economic damage caused by the tailings in Calancan Bay. They identified extensive heavy metal contamination of soil, water and biota and unequivocally linked this to the tailings in the bay.[22]

During the same month (March 1997), a joint team of medical professionals from the Department of Health and the University of the Philippines (DoH-UP) conducted limited health studies amongst 108 Calancan Bay villagers and established unacceptable lead and mercury levels in seven of the 22 children tested. Then-Health Secretary Carmencita Reodica said *"in the long run, if we continue to monitor, we will find more and more cases."* She also warned Calancan Bay villagers *"to exercise extreme caution"* in eating oysters and fish from the bay.[23] An expanded follow-up study was conducted by the DoH-UP team in October 1997. This time air and soil samples as well as blood samples were collected, at locations on the causeway and seven kilometres away. This time, all 59 children tested had unacceptable levels of lead in their blood and one quarter had unacceptable blood cyanide levels. Soil samples showed unacceptable levels of lead and cadmium, and elevated levels of copper and zinc, while air samples showed lead values exceeding United States Environmental Protection Agency standards. Based on these findings, seven government agencies petitioned the Office of the President to declare a state of disaster in Calancan Bay for health reasons. President Ramos made the declaration in March 1998.

Debunking myths

The 25-year struggle for justice by the local communities of Calancan Bay belies PDI's current claims to have reformed itself and become a "sustainable" mining company and "industry leader". The continuing denial of company responsibility for the state of the bay is testimony to PDI's intransigence when it comes to putting its new policy promises into action. When confronted with this history in 1997, PDI spokesperson Hugh Leggatt said

> *"The decision was also made in the context of that era . . . [T]he fact that the acceptability of such practices have changed cannot be denied . . ."*

This statement implies that PDI now recognizes that the dumping in Calancan Bay caused serious damage and that it has a responsibility to clean up and compensate those who lost their livelihoods. Unfortunately, other statements from PDI officials resemble the denials made by Marcopper presidents Garth Jones and John Dodge in the 1980s. In 1989, PDI's Corporate Vice President, John Hick, said *"Marcopper does not believe it has polluted Calancan Bay in a legal sense."* In 1997, Hugh Leggatt wrote in a letter, *"PDI rejects allegations that it is also responsible for alleged damage to fishing in Calancan Bay."* And in April 1998, PDI's CEO John Willson responded to a question about Calancan Bay at the company's annual general meeting by saying, *"Placer does not concede there is damage in the bay."*[24]

At PDI's Annual Meeting on 15 April 1998, CEO John Willson said that *"the company complied with the country's laws"*.[25] This statement, however, relies on a very narrow interpretation of the law. In 1975, the National Pollution Control Commission, having been instructed by Marcos to accommodate the needs of the mine, issued a permit to dump into Calancan Bay.[26] But the environmental authorities specifically requested that the disposal system be submerged so as to place the tailings in deeper water, thereby protecting corals and seagrasses and reducing turbulence. PDI did try to implement a submerged system in the shallow bay but it failed. Thus the first tailings were dumped on the water surface close to shore in violation of this first permit.

Today, PDI maintains that the dumping was done according to "best practice" of the time. In fact, it was well known by 1975 that surface disposal of mine wastes, in shallow waters, was destructive. It was for this very reason that the Philippine environmental authorities had insisted on submerged disposal for the Calancan Bay tailings.

Mogpog: Marinduque's first toxic river

To plan the construction of a new open pit in the late 1980s, PDI brought in the Vancouver-based consulting firm, Rescan Environmental Services Ltd[vi]. In order to store waste rock and other debris from the new San Antonio mine, Rescan suggested that the Maguila-guila Creek, a head water of the Mogpog river, *"be diverted in order to locate the Maguila-guila waste rock dump in the present creek valley"*.[27] An earthen dam in the Mogpog River was to contain the waste materials from the mine.[28]

When the people of Mogpog learned that the Creek was to become a dump site and a dam would be placed in the upper river, they mounted a vigorous protest. On 29 July 1990, 130 residents of the village of Bocboc, located just below the proposed dam site, and the Marinduque Council for Environmental Concerns (MACEC) signed petition letters expressing their fears.

Death in the valley

Almost immediately after the dam was completed, in 1992, villagers noted that silt from the waste dump was evident in the river. Sudden fish-kills and foul smells, especially after rainstorms, were reported. Siltation from the waste dump built up in the Mogpog River increasing the severity of flooding in the rainy season. Then on 6 December 1993, the dam burst. A wall of toxic silt and water raged down the river and into the town, sweeping away homes, people and livestock. Two children were killed; rice fields were covered in mud; dead and dying animals lay strewn around the river; and in Mogpog town the muddy water rose up to the second floor of many houses, causing panic and damage.

Placer Dome denies responsibility

The management of the mine denied responsibility. Resident Manager Steve Reid cited *"unusual rainfall due to a typhoon"* as the culprit. He maintained that the water coming down the valley carried debris with it which "*clogged the concrete decant of the dam causing water to overtop the dam which gradually eroded a section of the embankment*." In the wake of a mounting public outcry, the company finally channelled some money—carefully termed "*community assistance*", not compensation—through the local mayor. He distributed the funds in P.1,000 amounts per family as he saw fit. The two families who had lost children were given P.10,000 [vii] each.

[vi] Rescan were also the consultants who advised on the construction of Omai tailings dam that collapsed with such disasterous effect in Guyana *(see case study)*

[vii] equivalent then to appproximately US$400

The dam that doesn't

In an implicit acknowledgement of faulty engineering, the dam was re-engineered and an overflow was added, but the river has continued to silt up steadily. The poor condition of the river is not denied by Marcopper. In November 1998, company engineers Rick Esquierres and Jesus Cruz agreed that waste is flowing from the dam to the river, that this increases the threat of flooding, and that the waste is toxic to animals and humans. All along the river from *barangay* [viii] Bocboc up to the dam, there are unusual mounds of fine orange silt that become thicker and wider the closer to the dam they are. Small pools of water are a strange light blue. If one stands on the earthen dam wall, it is apparent that the silt in the river is the same material that is heaped up behind the dam. The solid waste behind the dam is now piled higher than the bottom of the overflow, so that the "overflow" channel serves only to funnel waste directly into the river.

Since 1995, residents of Bocboc reported their fears that the dam might burst again because of increasing structural damage. A petition was signed by 21 *barangay* leaders of Mogpog, and supported by the Social Action Commission of the Church, for the entire waste pond and dam to be removed.[29] On 17 November 1995, the town council passed another resolution stating that:

> *"the siltation dam barely serves its purpose. Marcopper with their beautiful rhetorics would always find ways to defend their position but just try to visit the Mogpog River and see the reality yourself. The fact and truth is there are portions of the river which are even higher than the barangay roads which used to be meters higher than the river base."*

The regular fishkills have also continued. Villagers say that they fear their favoured Bagtuk crab, a speciality that used to be abundant in the Mogpog river, has become extinct. A resident of Bocboc reports

> *"the fish, shrimps and crabs we used to rely on for our food are scarce now in the river and sometimes disappear altogether. Some mornings we wake up and fish are floating dead in the river. We are afraid to let our animals drink because pigs have died after drinking the water from the river."*

Another sign of toxicity is the increasing die-back of forest along the river.

Mine manager Steve Reid finally agreed to carry out further "repairs" to the dam. This work, however, was overtaken by the Boac river disaster (*see* p.??) and the mine's subsequent closure. The work on the dam has yet to be resumed. On 6 November 1998, the town council of Mogpog forwarded a resolution to the provincial board demanding the complete removal of the Maguila-guila dam, the clean up of the waste dump at the top of the river, and the complete rehabilitation of the Mogpog River and watershed. Provincial board member Adeline Angeles, from Mogpog, demanded to know, *"who should the people of Mogpog turn to, to carry out our demand? PDI refuses to acknowledge any responsibility for the problems in Mogpog and Marcopper is bankrupt."*

[viii] Village, or smallest administrative unit in the Philippines.

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Yellow effluent and mine tailings flowing through overflow in Mogpog "dam", 1998.

This shot shows the overflow in the Maguila-guila dam in Mogpog (photographer standing on the top of the dam looking down). The mine waste is now so high behind the dam that it is channeled through the overflow into the Mogpog River. Mine waste has even cut off the road to the dam from the mine site.



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Pit Lake, 1998. This is the former Tapian Mine, now a tailing impoundment.

Under the water are tailings and the former drainage tunnel that collapsed sending more than three million tons of tailings into the Boac river in March of 1996.

The Boac River disaster

On 24 March 1996, an even more horrendous event was to shatter the lives of the residents of Marinduque, when the concrete plug sealing a former drainage tunnel at the Marcopper mine burst, spewing 3-4 million tons of tailings into the 26km-long Boac River.[ix] The 2.25km-long tunnel, formerly linked the Tapian mine pit with the Boac River. This pit had been used since 1992 for the dumping of tailings from the new San Antonio mine. When the plug burst, the Boac River was filled with a thick sludge of grey tailings. It was declared biologically dead one month later by an expert team sent by the United Nations to assess the disaster.[30] Massive damage caused by the river's overflow forced the evacuation of five villages. An estimated 20,000 villagers living along the river and its coastal mouth were affected.[31] The Philippine government called the spill the worst industrial disaster in the history of the Philippines and declared the entire island of Marinduque a disaster zone. President Fidel Ramos took the unprecedented step of filing criminal charges against the mine's top managers, PDI's John Loney and Steve Reid.[x] Department of Environment and Natural Resources Secretary, Victor Ramos, stated *"We are blacklisting Marcopper and PDI Inc., their Canadian partners, from any new developments of any mining properties in our country because of their bad track record."*[32] The mine was closed.

PDI, however, swiftly announced that Ramos had "reversed himself" in private conversations with the company, withdrawing both the restrictions on future operations and the implications about their record.[33] Under intense international scrutiny and pressure from the Philippine government PDI committed itself to cleaning up the Boac River. But more than three years later, at least a quarter of the tailings are still in a channel PDI dredged at the river's coastal mouth. A small amount remains up-river, mainly along the river's banks, while the rest have simply flowed into the sea covering corals and seagrasses. PDI has admitted that, as of February 1997, the sulphur in the exposed tailings has started to oxidise and to form toxic sulphuric acid which could potentially release heavy metals in the tailings through Acid Mine Drainage *(see Mining Impacts, page 30)*[34] A joint team of scientists from the Department of Health and the University of the Philippines confirmed in 1996 and 1997 that people living along the Boac River are suffering from heavy metal contamination.

The severity of the 1996 disaster shocked the whole Philippines. However the river has in fact served as a disposal site for waste run-off from the mine site from the 1970s onwards. The tunnel that burst was originally built in 1976 to facilitate this drainage into the river. PDI also admits that run-off from toxic waste dumps flows into up-river streams, and that these water sources drain freely "into the Makulapnit and Boac Rivers"[35]. The United Nations investigative team identified unacceptable levels of heavy metals in parts of the river and linked this finding to toxic mine waste leaching into the river through a faulty waste rock siltation dam situated at the river's headwaters.[36]

[ix] Initial estimates on the size of the spill provided by the United Nations set the amount at "between two (2) and three (3) million cubic meters" over the first "4-5 days at a discharge rate of between five (5) and ten (10) cubic meters per second." (U.N. Report 1996:2). A report issued by PDI on September 24, 1996 reduces the estimate stating that: "Approximately 10% has flowed to the ocean during the past four months, leaving approximately 1.6 million m^3 or 3.6 million tonnes still in the upper reaches" (PDI 1996:1). Later reports by PDI have reduced the estimates by setting the *total* spilled amount to 1.6 million cubic meters (PDI 1997:110). I set the total amount of spilled tailings at 3-4 million tonnes, which is a conservative amount based on Place Dome's September 24, 1996 estimate.

[x] Now, more than three years later, the case against Loney and Reid appears to be languishing in the courts and Marinduquenos despair of seeing justice done. The intitial charges included reckless imprudence causing damage to property, violations of the Water Code, violations of the Pollution Control Law, and violations of the Philippine Mining Law of 1995. Judge Zoleta, who would hear the case in Marinduque, proved a major source of controversy as his son was employed by Marcopper and his wife ran a catering company that supplied the mine. When Zoleta threw out a number of the charges the opposition to his involvement grew fierce. Zoleta has since announced his retirement and has withdrawn from the case.

Blaming God for the disaster

Marcopper denied responsibility for the Boac catastrophe, stating:

> *"It can only be attributed to force majeure, above anything else, for no amount of technical expertise can ever accurately predict the temper of nature."*

PDI identified this "act of God" as a minor earthquake that took place one week before the spill. Two weeks after the spill, the Asian Development Bank, the mine's major financial backer, sent a fact-finding mission to the island and concurred with statements made by the company that *"Marcopper Mining was not negligent and was taking all steps to assist villagers"*.[37] [xi] Subsequent investigations by the United Nations, however, revealed a corporate culture of environmental negligence, set at the highest level by Marcopper's president John Loney and resident manager Steve Reid. The UN team concluded its report by noting, *"it is evident that environmental management was not a high priority for Marcopper."*[38]

The UN scientists questioned Marcopper's use of the mined-out Tapian pit as a containment for tailings from the newer San Antonio mine, and queried why no environmental impact assessment had been carried out for this plan. The UN team concluded that, had the risk of using the pit been assessed, *"It is possible . . . the present environmental disaster would not have occurred."*[39]

When interviewed, employees at the Philippine Institute of Volcanology and Seismology (Philvolcs) expressed surprise at the attention the earthquake theory was receiving. They pointed out that it was such an *"insignificant"* event that no Marinduquenos had reported feeling it and Philvolcs had not issued a bulletin.

In fact, PDI had known there was a problem with the tunnel seven months before it collapsed. According to documents from Boac's Mayor Roberto Madla, seepage in the hillside near the tunnel was first reported to Marcopper's resident manager Steve Reid in August 1995. Reid commissioned an independent consultant's report, which indicated that the tunnel was failing. Reid therefore instructed teams to start drilling so as to install a second plug. It was while drilling was in progress that the tunnel's concrete plug collapsed. When interviewed, Marcopper engineer Rick Esquieres explained that, when drillers bored into the tunnel about 160m below the ground, the sudden release of air from the tunnel may have reduced the pressure holding back the tailings. The months of drilling on the already failing tunnel were mentioned in PDI's press releases immediately following the spill, but were omitted from the documentation PDI has produced since the earthquake "theory" was announced.

Illegal in Canada

To deal with the remaining spilled tailings, PDI is pressuring Filipinos to accept submarine tailings disposal (STD), a procedure that is illegal in Canada. This would involve pumping the escaped tailings into the Tablas Strait off the Boac coast through an underwater pipe. The Department of Environment and Natural Resources (DENR) has twice turned down PDI's applications to do so. The first application was turned down in 1997 when then DENR Secretary, Victor Ramos, noted that, under Philippine laws and regulations, offshore areas *"are considered to be Environmentally Critical Areas"*. Boac's Mayor Madla welcomed Ramos's decision.

> *"On behalf of the people of Boac we are extending our sincerest gratitude for heeding our call to save Tablas Strait by not allowing [the company] to dump their contaminated mine tailings into the said Strait."*

PDI appealed this ruling, and on 23 March 1998, DENR allowed the company to conduct an Environmental Impact Assessment (EIA) as long as a "major part" of the study focussed on "alternative land-based disposal options."

PDI brought in the consulting firm Woodward-Clyde (Philippines) to lead the assessment studies, which took more than a year to complete. In the meantime, the tailings continued to find their way into the sea. On 16 February 1999, PDI's second request for an STD permit was turned down in a letter by DENR Secretary Antonio Cerilles on the basis of *"...absence of social acceptability as evidenced by the consistent opposition from directly affected stakeholders of Marinduque...."*. Nonetheless at a congressional inquiry on 25 May 1999, islanders testified that PDI officials are still actively canvassing citizens of Boac for signatures in support of STD in exchange for livelihood projects and other "incentives".

[xi] The first Marcopper mine in Marinduque, the Tapian Mine, was financed by a syndicated loan of US$ 34 million granted by a consortium of five banks headed by Chase Manhatten Asia Ltd. and secured by Placer Dome. The Export Development Corporation of Canada also supplied a loan of US$1.36 million (Marcopper Mining Corporation Financial Statements, December 31, 1982 and 1981). For the second mine, the San Antonio Mine, Placer Dome secured and guaranteed a loan of US$15 million with the Asian Development Bank (ADB) and a further loan of US$25 million from the ADB through the Canadian Bank of Nova Scotia (BNS) (PDTS Position Paper May 25, 1999). In 1996, before the tailings spill, the Rizal Commercial Banking Corp. provided a US$9.7 million bridge loan and the Export-Import Bank of the United States approved a bridge loan with the Bank of New York as the direct lender on record. Of these loans the most controversial has been the loan by the Asian Development Bank, leading NGOs to question "the social and environmental criteria which the bank applies to its private sector lending" (Corral: April 30, 1996).

Robert McCandless, a geologist with Environment Canada (a Federal Government Ministry), is dismayed that Canadian mining companies are promoting STD abroad,

> *"I don't believe they should be advocating doing things that are illegal. When doctors go abroad they continue to sterilize their instruments. They don't change their practices just because they are in a foreign country."*

McCandless points to the advanced technology used in Canada for containing tailings on land which, although it costs more, is the knowledge that he believes should be exported.[40]

By opposing the STD proposals, Marinduquenos believe they are not only protecting the sea off the Boac coast from becoming a new dumping ground but also guarding against the mine reopening. They fear that a permit to dump any tailings into the sea might set a precedent for long-term sea dumping. Especially as Marcopper officials have already made it clear that they intend to reopen the mine, in spite of local opposition.

Hunt the owner

There is evidence to show that PDI has schemed to protect the assets of Marcopper, including machinery and mineral rights, from creditors and bankruptcy by setting up a Cayman Island holding company to which Marcopper's assets have been transferred. There are also clear indications, despite general company policy to the contrary, that PDI has been anything but transparent in its dealings on the claimed divestment of Marcopper leading to mounting suspicion on the island about the future intentions of Placer including possible future mining plans.

When Philippine Solidbank and other creditors were trying to recover unpaid loans following the Boac disaster they were confronted by counter claims from MR Holdings a Cayman island based subsidiary of PDI.

Following the 1996 Boac river disaster, the Philippine Solidbank (40% owned by the Canadian Bank of Nova Scotia) sued Marcopper at the Regional Trial Court of Manila to recover a loan. Solidbank won its case in May 1997, and Marcopper was ordered to pay almost 60 million pesos (US$1.5 million) plus interest, attorney's fees and costs. Marcopper appealed, and the case eventually ended up in the Regional Trial Court of Boac, Marinduque, where an auction of Marcopper's property was scheduled for September 1998. On 26 August 1998, however, an unknown company, MR Holdings Ltd., suddenly announced itself in a *"Third Party Claim"*, stating that the *"properties levied on"* were *"owned by MR Holdings, Ltd. not by Marcopper Mining Corporation."*

Court documents filed for MR Holdings dated 9 September 1998 identify the company as *"a foreign corporation organized and existing under the laws of the Cayman Islands"* which is *"an indirect wholly-owned subsidiary of PDI, Inc."* PDI's John Loney (still under criminal indictment for the Boac river spill) and PDI's senior vice-president Alexander M. Laird both signed documents for MR Holdings. Both PDI's address in Vancouver, as well as an address in the Cayman Islands, are provided as addresses for MR Holdings. Court documents further reveal that MR Holdings paid off Marcopper's Asian Development Bank loan on 20 March 1997 and, at the same time, through an Assignment Agreement with Marcopper, assumed ADB's mortgage on the mine. Then, on 28 December 1997, according to court documents, Marcopper signed a Deed of Assignment through which the company ceded all its properties in Marinduque (land, mining rights, buildings, machineries) to MR Holdings—in other words to PDI—as of 31 December 1997.

Protesters outside the company's offices in Manila.

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Confronted in January 1999 by the media in Canada about MR Holdings, PDI admitted setting up the company but insisted that it had divested itself from MR Holdings to *"Philippine interests."* PDI refused to provide documentary evidence to this effect, however, and refused to reveal whom the "Philippine interests" were. At the same time, in court documents filed on 25 January 1999, lawyers for MR Holdings again asserted that the company was *"an indirectly-owned subsidiary of PDI."* At the congressional inquiry of 25 May 1999, Placer Dome revealed in a position paper that it had divested from MR Holdings in 1997 to *"the major shareholder of Marcopper (F Holdings, Inc.)"*.[xii], While this information clarified who the "Philippine interests" are, Placer Dome's position paper still does not provide documentary proof of its alleged divestment, and does nothing to explain why the lawyers for MR Holdings identified their client as a wholly-owned subsidiary of Placer Dome as recently as January 1999.

[xii] Major shareholders in F Holdings are: Teodoro Bernardino, Fe Maria Dora G. Bernardino, Provident Tree Farms Inc. and Loadstar Shipping Co., Inc. (SEC document, October 20, 1994)

PDI's corporate manoeuvres and refusal to provide critical information contradicts numerous policy promises regarding transparency in stakeholder relations. In its Sustainability Policy, for instance, the company promises to involve stakeholders *"in decisions which affect them"* and to *"provide them with information relevant to their concerns."*[41] In a recent speech, Chairman Robert Franklin said that the commitment to respond to stakeholder expectations *"brings with it the responsibility to be transparent in our business dealings."*

Enough is enough

The whole history of the company's dealings in the Philippines belies the claims of PDI to leadership of a new approach to mining. On Marinduque the community is united as never before and, based on its experience with Placer Dome, is opposed to future mining by this or other companies. Their attention is focussed finally on some belated compensation of their just claims.

On 18 March 1999, Marinduque's Congressman Edmundo. O. Reyes presented a privilege speech to his peers in which he roundly criticised Placer Dome's record in Marinduque. In his speech he said that *"Placer Dome has not done what it proudly promised to do, but has shown that it wants to walk away, as fast and as cheap as possible."* This was followed on 25 May by a congressional inquiry into the history of Placer Dome on the island. These recent events are encouraging signs that the island's highest elected official has aligned himself with the struggle of his people for justice. While former Mayor Wilfredo Red of Santa Cruz, Mayor Roberto Madla of Boac and Provincial board member Adeline Angeles of Mogpog have recently led the way by taking a stance for the people against destructive mining, Marinduquenos have clearly not always been so well protected by their politicians.

At the congressional inquiry, spokesperson Benjamin Alfante, Vice President of the Calancan Bay Fisherfolks Federation, presented a position paper outlining the concerns and hopes of villagers from all three affected municipalities.

> *"We are very strong in condemning the toxic spill in Boac River on March 24, 1996 but let me remind you that this occurrence was only an accidental and new one . . . [L]et us not forget the suffering of the residents of Sta. Cruz [Calancan Bay] who are now reaping the negative effects of the irresponsible acts of Placer Dome/Marcopper. At the same time, we should not lose sight of the older spill that brought mine waste to the Mogpog River virtually killing it to the detriment of those residents who rely on the river for their living through farming, laundry, fishing and others . . . Let us not allow the re-opening of Marcopper or any subsidiaries. Let us not allow submarine tailings disposal (STD). Let us not allow greed [to] lord it over at the expense of thousands of lives. Thank you!"*[42]

TVI Pacific: the unacceptable face of the future

TVI Pacific Inc (Toronto Ventures Incorporated) is a Calgary-based junior mining company incorporated in 1987. Quoted initially on the Alberta Stock Exchange, its shares are now listed on the Toronto Exchange as well. Echo Bay Mines, a larger North American miner, is TVI's biggest shareholder, holding 15% of shares as of January 1998. TVI is focused on the Philippines [43], and was drawn there by the attractions of the revised Mining Code. The company's 1994 Annual report states:

> *"On March 3, 1995, the long awaited Philippine Mining Act was passed into law. This Act is very important to the future of the mining industry in general in the Philippines, and to TVI's future in particular. Among other things, it provides for 100% foreign ownership of mineral properties; guarantees repatriation of earnings, capital and loans payments to foreign entities . . . Together with other existing incentives, the passing of this Act clearly signals that the Philippines is "open for business".*

TVI has no significant current mining operations anywhere in the world, but is now in the remarkable position of having the largest holdings of any mining company in the Philippines. It registered claims over a total of 1,256,302 hectares—over 4% of the Philippines' total land area. [44] TVI clearly has neither the capacity nor the intention to develop major mines on these properties. Instead, its main approach is based on the high-risk strategy of making substantial speculative claims and then attracting major companies to invest in or take over these projects. Following this strategy, many TVI claims are adjacent to those of other companies.

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Despite escalating violence, intimidation and threats, Canatuan residents continue to oppose the entry of TVI.



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TVI tries to move drilling equipment on to Subanen ancestral lands at Canatuan—but are met by a human barricade.

TVI's 1995 Philippine Gold Prospectus for investors states that in Kalinga Apayao, northern Luzon, *"Both Newmont (USA) and Newcrest (Australia) have filed FTAAs [Finance and Technical Agreements] in the area contiguous with TVI blocks"*, While in Mindanao *"Most of [TVI's] MPSAs [mineral production sharing agreements] are contiguous with the Delta-Marcopper claim blocks."* [xiii] Such adjacent claims open the prospect of large companies having to buy out the TVI rights to develop their own operations.

TVI is heavily dependent on getting the backing of Canadian investors. In its promotional materials, it points to the increased political stability of the Philippines, while withholding the fact that TVI has entered some of the most politically high-risk areas in the country—those occupied by indigenous communities with pending land rights claims, small-scale miners and even guerrillas. The company is clearly aware of the potential for conflict with indigenous communities. The 1994 TVI Annual Report notes possible problems from aboriginal land claims at Hidden Creek, the one Canadian property with which it was then involved. But the company's documents on their Philippine claims fail to give similar acknowledgement of the presence of Philippine indigenous peoples and ancestral land rights claims within their exploration areas.

Neither does TVI acknowledge or respect the prior rights of small scale miners. The company's own materials acknowledge their presence on several of the sites the company plans to enter. TVI reports state that Diwalwal is *"located next to bonanza Diwalwal/Compostela gold camp"*; Diwata has *"active small-scale mining on the property"*, and Canatuan *"Gossan presently being mined by small scale miners."*.[45]

Overall it is impossible to avoid the conclusion that central to the TVI approach is securing legal rights over land that others have prior claim over.

Canatuan: driving out the Subanen?

> *"I am against TVI because they will destroy our land, dump waste in the river and drive off the game with their noise."* —Jose Anoy a Canatuan Subanen Timoay (elder)

Canatuan is a mountain top community in the municipality of Siocon, Zamboanga del Norte, within the Subanen ancestral domain. The communities affected by TVI have organised themselves into the Siocon Subanen Association (SSA). This area was plundered in the 1980s by indiscriminate logging operations, and has suffered from years of armed conflict and militarisation, experiences which have been bitter and formative for the Subanen. The strong indigenous peoples presence in the area has preserved some forest in and around their communities . They fear this will be destroyed if TVI's proposed open-pit mining proceeds. Local people argue that Canatuan is already a severely denuded watershed in urgent need of protection, not further denudation. The Subanen (meaning 'people of the river') also fear for the impacts of the mine on their river and those living downstream.

Canatuan is ancestral land. It is even covered by a government recognised ancestral land claim. This was one of the first such claims lodged under a 1993 Department of the Environment Administrative Order (DAO 2). Canatuan also developed from 1989 onwards into a prosperous small-scale mining community. Relations between the indigenous group and small-scale miners have remained on the whole remarkably good. Some Subanen have became miners while others get cash income through related casual work. The indigenous people also benefited from the stores, roads and public transport systems that serve the new community. TVI's first claim over the area dates back only to 1994 when it executed an Exploration Agreement with Benguet Corporation, the Philippines biggest domestic mining company.[46]

Local opposition

The well-organised local co-operative of small-scale miners has challenged TVI's claim. They point to their prior occupation, and claim that they were cheated of their rights in secret deals between Benguet Corporation and a certain Ramon Bosque and then subsequently in deals between Benguet and TVI.

The Subanen are also challenging TVI's rights. The Mining Code clearly requires that affected indigenous communities be informed, consulted and give consent before mining can proceed within their territories. In this case, Jose Anoy, a traditional *Timuay* or leader and president of the Siocon Subanen Association Inc, says that both the local Subanen and the

[xiii] Marcopper was at this time 40% controlled by Placer Dome while Delta, another Canadian company is now owned by Chase Resources (also Canadian).



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Subanen spokesperson Onsino Mato is dragged away and arrested by armed police, September 1999.

small-scale miners have clearly and consistently opposed the entry of TVI despite bribes and threats. He also says that there has not been proper consultation. The Secretary of the SSA, Onsino Mato, argues that

> *"We made an ancestral land claim in 1993 before TVI were ever here but the company has been allowed to go ahead and our claim has been blocked. This is our land. We have always lived here . . . I don't believe the Government in Canada know what is going on in our place. I do not believe TVI give an honest report".*

In the face of strong local opposition, TVI has followed the practice pursued by other mining companies operating in the Philippines of getting its' endorsements from local officials, including the then-Mayor of Siocon. In 1995 a counter ancestral land claim was also filed, covering the Canatuan area, by a group said to be supported by TVI.[47]

Militarisation

A private security firm, Octagon Security Agency was introduced to secure the claimed rights of Bosque and Benguet Corporation. Octagon is owned by retired Major Abraham Maghari a close friend of the TVI security consultant Retired Major Florante Cocal. More than 80 'Blue Guards' were initially recruited. In 1995 the Department of National Defence allowed the creation of Special Civilian Armed Auxilliary groups (SCAA). SCAA groups could be formed by companies with government agreement and support. TVI availed of this structure and the Blue Guards were converted into SCAA forces.They received training and arms from the military including high-powered weapons and even a 105 millimetre Howitzer field gun.

TVI's use of the SCAA has inevitably led to numerous incidents of harassment. On 27 April 1997, for example, a small-scale miner, Camilo Aquino, was shot and wounded by one of the SCAA security force. Local residents report other incidents involving the use of fire arms. The miners' co-operative, its leaders and property have been particular targets. The company used the SCAA to close the provincial road that passes through the mining site. They established check points thus enclosing the community of Upper Canatuan. The public jeep which was the major contact with the lowlands was barred from entry and stopped operating. Access is now only on foot or by motorbike. Local traders began hauling essential goods the last five kilometres along foot trails that go round the check points. In response, the SCAA planted barbed two-inch "Suyak" nails under leaves in the trail. Over 60 such nail traps were discovered.[48]

Local residents also report the confiscation of goods including gasoline, mining equipment and tools. Some are permanently lost, while others are released only after payments to the security guards. Even materials supplied by the government to build a village hall were seized by the TVI security force. Food supplies have been severely affected.

Although company officials deny these accusations, a signed internal memo dated 12 March 1997 instructs the gate security to:

a. *"Implement total ban (sic) of all goods and beverages and oil and fuels for running generators to enter TVI complex"*;

b. *"ban (sic) all supplies/goods intended for the Small Scale Miners Co-operative store."*

A copy of these *instructions "for guidance and strict compliance"* was given to the on-site TVI project manager, engineer De Pastoriza.[49]

One major purpose of the roadblock is to prevent the gold-rich tailings of the small scale miners going off site forcing them to sell exclusively to the company. Small scale mining processes cannot recover all the gold trapped in the ore. The processes used at Canatuan, leave an estimated average of nine grammes of gold in each tonne of tailings. TVI planned to finance further development at Canatuan and elsewhere by processing these tailings. A CIL (cyanidation leaching) plant was constructed at Canatuan ahead of any mining operation as a *"revenue generating operation"*. This plant's main current source of gold ore is the tailings from the small-scale miners. The accumulated tailings on site, as of 1995, were estimated by TVI at 70,000 tonnes. A much larger backlog has now accumulated. The net income from monopolizing processing was calculated by TVI to *"be in the range of US$150,000 per month."* [50] Consequently on 9 November 1996, armed SCAA security led by Retired Col. Maghari stopped and held two trucks carrying tailings. On the same day, armed SCAA ordered the closure of certain small scale miners gold mining tunnels, pointed their guns at assembled miners and fired in the air to intimidate those who resisted.[51]

Despite these measures, the small-scale miners have held out against TVI. Their resolve has been reinforced by the low prices: reported as between 7 -10 pesos per sack offered by TVI compared to 15 pesos off site.[52] The miners view the road blocks as part of a process of extortion, forcing them to sell at below market prices, and have chosen instead to stockpile their tailings.

Carrot and stick

By 1997, the local population at Canatuan had fallen by more than half. Some key people were targeted by the company and bought out. Many were squeezed out by the blockade and resultant hardship. The company then employed a prominent law firm, [xiv] to serve eviction notices on those who remained.

TVI has pushed ahead in the area, despite the clear local opposition, because of anticipated profits. A project with a life span of nine years is predicted to pay back the initial capital invested within two years. TVI states that in 1997 it received offers of debt financing of approximately US$24 million from Rothschild Australia Ltd, part of the London-based NM Rothschild Private Investment Bank. Rothschild plays a key role in mine financing around the world. The Commonwealth Development Corporation (CDC), nominally an arm of the British government's international development programme, also extended offers of debt financing. Following a local and international campaign, CDC has withdrawn from the project. CDC acknowledged that the loan had been agreed without any prior consultation with the affected local communities or meaningful assessment of the social or environmental implications of the project. Rothschild has also withheld its financing.

Hope grew during these two years of delay. Local elections removed the pro-company mayor. The new incumbent is opposed to TVI, concerned about the impacts not only on the project site but also on the major rice-growing belt downstream. The Canatuan Subanen were finally granted their Certificate of Ancestral Domain Claim in 1998. In July 1999, however, the company announced that it had found new financiers in Japan, although it refuses to name them[53]. As of August 1999, local people have been forced to erect their own barricades to block the entry of company drilling equipment. The armed security forces have returned under a new name, and the company has gained a court injunction to bar the people from blockading the trail. On 6 September armed company personnel and police attacked and rounded up the pickets beating them with gun butts and canes. One Subanen leader Onsino Mato was kicked and arrested as he read from the Indigenous Peoples Rights Act.[54] An enquiry is now underway.

Local Subanen and the small scale miners residents in this area have been clear and consistent in their opposition to TVI. Precedent, and existing law suggest that under these circumstances the project cannot proceed. That local groups have so far been unable to halt this unwelcome and abusive company in its plans must be a cause of grave concern.

The cases of Placer and TVI in the Philippines point at two widely differing companies that nonetheless have exhibited a shared disregard for local rights and wishes. This stands in stark contrast to the new rhetoric of sustainable mining, and stakeholder accountability so proudly spoken of at home in Canada but seemingly so far little practised in the field.

[xiv] headed by a former Human Rights Lawyer, Rene Saguisag.

Indonesia

Introduction

THE INDONESIAN ARCHIPELAGO contains a wide variety of minerals, some of which have been mined for centuries. There are large reserves of gold, tin, coal, copper, nickel, cobalt, bauxite and mineral sands. Indonesia is a major exporter of tin and, more recently, coal, which is mined largely in Sumatra and Kalimantan. The disputed territory of West Papua houses the world's biggest gold mine.

During the era of President Suharto, Indonesia became a popular location for exploration and mine development. International mining corporations favoured the political "stability" offered by Suharto's authoritarian regime, as well as the low land, labour and environmental costs.

Mining is carried out by Indonesian private and state-owned companies, foreign mining companies and small-scale miners—often termed "illegal" by the government. The big international corporations active in Indonesia include Rio Tinto (UK), BHP (Australia), Inco (Canada), Sumitomo (Japan) and Newmont and Freeport McMoran (United States).

Bre-X and beyond

The reputation of Canadian mining companies operating in Indonesia suffered a damaging blow in early 1997 when the Bre-X/Busang gold fraud was uncovered. Bre-X Minerals Ltd., a small, Calgary-based exploration company, claimed it had made the biggest gold discovery of the century at Busang, Kalimantan, Indonesian Borneo. Investors poured funds into the company's stocks, and other Canadian companies rushed to Indonesia. But company staff had tampered with samples and there was, in fact, no gold.

Before the fraud was confirmed in May 1997, Bre-X claimed that its Busang prospect contained 71 million ounces of gold with reserves of up to 200 million ounces. The company was being wooed by fellow Canadian companies Placer Dome and Barrick Gold, as well as the (then) Australia-based CRA, all hoping to become the operating partner. Also fighting over the promised riches were the children of Indonesia's President Suharto, who were entering the most decadent phase of their business careers during the final months of their father's faltering rule. The partnership was finally awarded to the US-based company, Freeport McMoran, (in which Britain's Rio Tinto has a 13% shareholding), operators of a massive copper and gold mine in West Papua.

Dozens of other Canadian companies scrambled for control of the concessions near the Bre-X find. Three-quarters of the 164 companies applying to the government for Contracts of Work at the time were Canadian.[1] They were hoping—and trying to persuade the investing public—that they would follow in Bre-X's footsteps and find yet more gold in Kalimantan.

Until this latter-day gold rush, there had been few Canadian exploration or mining companies in Indonesia. Inco had been the only major Canadian mining presence in the country with its nickel mine and smelting operations at Soroako in south Sulawesi *(see page 77)*. Placer Dome, another of Canada's big miners, had gone into Kalimantan during the 1980s when there had also been a surge of interest in gold exploration, but no mining had resulted.

After Bre-X's fraud was exposed, a discovery which coincided with the start of Indonesia's economic and political crisis, interest from Canada and elsewhere in mining in the country dropped off. Thirty-two companies, most of them Canadian, withdrew or postponed their applications for mining contracts in mid-1997.[2] Smaller companies were unable to raise funds because of low investor confidence, or tighter rules on raising funds brought in by the Canadian stock exchanges. They were put off, too, by weak metals prices on international markets.

But interest did not die out. Several companies opted to remain in Indonesia and are still continuing their exploration programmes in Kalimantan, Java, the Moluccas, Sumatra and West Papua. Of the 38 mining contracts signed by the Indonesian government in February 1998, 15 went to Canadian firms.[3] At the same time, Inco has been expanding its presence in Sulawesi and has entered into partnerships with junior exploration companies on other islands.

Investigations into the Bre-X fiasco brought the Indonesian government's handling of the fraud under close scrutiny, exposing a chaotic bureaucratic system riddled with corruption.[i] Rules could be bent or overridden at any time on the instructions of President Suharto. When Busang began to look like a real find, Suharto and his children wanted a share of the gold. An undignified tussle ensued pitching Suharto siblings and their favoured foreign companies against each other. The final deal was brokered by Suharto's chief aide, Bob Hasan. He arranged substantial shareholdings for Freeport, the Indonesian government, and for the Nusamba Group, owned by Suharto, Suharto's son Sigit, and Hasan himself.[ii]

[i] In one instance in late 1997 the Mines and Energy Ministry was accused of demanding payment from contract applicants of US$9,150 per application to cover photocopying expenses. Some of this money appears to have been passed to Indonesian Parliamentarians who were deliberating on the contracts at the time.

[ii] Detailed information can be found in Jennifer Wells, *Bre-X, The Inside Story of the World's Biggest Mining Scam,* Orion Business Books, UK, 1998

The violation of indigenous rights

The Busang scandal highlighted that mining deals in Indonesia tend to be made with no regard for the people of the area or the environment that sustains them. Conspicuous by their complete absence from the debate, for instance, were the indigenous Dayak communities who live in the Busang area and who hold customary rights over the forests. Their permission was not required under Indonesian law before Bre-X were licensed to carry out its drilling programme. The Dayaks were never included in the protracted discussions over who should own the mine. Bre-X did make some attempt to win over local people to the project by providing the village nearest to its site, Mekar Baru, with a diesel generator, a church and promises of clean water and schools—token gains for what would have been the total devastation of their farmlands and forests.[4] The potential impact of environmental pollution and social changes that accompany the development of a large mine did not feature in the discussions.

The Indonesian state prioritises the needs of investors over the livelihoods of communities in forests, rural areas or cities. Since much of the current mineral exploration and mining activity takes place in forested areas, forest-dwelling indigenous people, some of whom may derive income from small-scale mining themselves, are most affected. The pattern is the same for mining as it is for commercial logging or plantation development. At best, indigenous peoples are given token compensation for the resources lost to commercial projects. At worst, they are evicted without notice, their homes burned to the ground, and their crops and forest gardens bulldozed. Those who object to this treatment lay themselves open to intimidation, torture and disappearance at the hands of a military well-versed in such methods.

Mining in Kalimantan and elsewhere in Indonesia has been a significant cause of forest destruction, with concessions covering over 36 million hectares—one-fifth of the country's total land area[5]—much of it forested. The damage is done not only at the mine itself, where the forests are torn up to excavate the ores, but also by the building of roads, towns and ports, by the pollutants carried in water courses, and by the increased competition for land and resources caused by the influx of outsiders.

State policy has refused to recognise the social value of the forests managed for generations by indigenous peoples. Instead, it views forests as "empty lands" and regards indigenous peoples as "squatters" or "isolated tribes" who need to be resettled in villages and adopt "more advanced" forms of agriculture. Mining companies have used government policies which discriminate against indigenous peoples as a shield to protect them from the cost of paying adequate compensation to local people and/or from the difficulties of negotiating directly with communities who might, given a real choice, reject destructive mining.

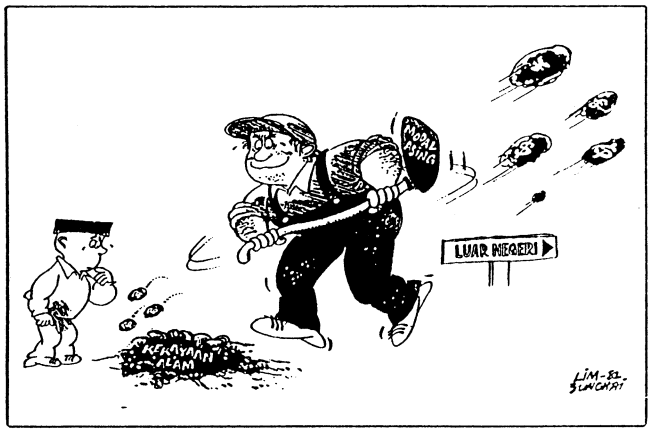
Laws on land rights and the exploitation of natural resources leave almost no room for manoeuvre for indigenous peoples. Indonesia's 143 million hectares of declared forest lands (of which less than 100 million are actually forested) are officially classified as belonging to the state. *Adat* or customary rights are given limited recognition under the law, but indigenous ownership of forests is not recognised. When a conflict of interest arises, *adat* rights have to give way to projects considered to be in the national interest.

Even where communities do hold legal title to land, the Basic Mining Act says they must allow the holder of a mining permit to carry out its activities. Landowners who try to stop these activities can be jailed and/or fined.[6] Landowners are entitled to compensation but the process for setting compensation levels does not protect their interests. More often than not, they must accept inadequate payments or pursue the matter through the courts, a prospect which does not hold out much hope for justice.

Companies requiring land for large-scale commercial projects benefit from the direct assistance of the local government apparatus which deals with local landholders. Not uncommonly, the end result of this process has been the forcible eviction of local people by the military. A 1993 presidential decree made some improvements by stating that land had to be acquired through direct negotiations with the parties concerned. It allowed direct government assistance in land acquisition only for "public/national interest" purposes which did not include mining. The Mining Ministry thus proposed that mining should be treated as within the "national interest".[7]

Large-scale mining projects had enjoyed the support of President Suharto and the Indonesian government since 1965, when Suharto seized power. The mass slaughters of communists and suspected communists overseen by General Suharto had barely subsided when, in 1967, the first major foreign investment contract was signed with Freeport. The deal helped consolidate the legitimacy of the Suharto government as well as to advance the government's colonialist ambitions in West Papua. It also set a precedent as far as indigenous rights were concerned. Freeport was granted a concession to lands in the mountainous interior of West Papua without the permission or knowledge of the indigenous Amungme people living there. The contract also presupposed that Indonesia would retain the territory of West Papua before its political status had been determined internationally.[8]

Mining in Indonesia—the regulatory setting



Kekayaan alam = Natural wealth

Modal asing = Foreign capital

Luar negeri = Overseas

Metals mining in Indonesia is dominated by foreign companies: Indonesian concerns play only a minor non-operational role in joint-venture partnerships. Under President Suharto, foreign companies provided the mining expertise and financing while Indonesian partners provided the "Indonesia" expertise—good contacts in the business and political elites and a knowledge of bureaucratic procedures. Mining is organised under the "Contract of Work" (CoW) system. The contracts, which must be approved by Parliament and the president, require companies to conduct a general survey (one year), exploration (three years), a feasibility study (one year), construction (three years) and production (thirty years).[9] Preparatory exploration work is allowed before CoWs are signed.

Successive "generations" of CoWs have set out different rules on royalty payments, tax incentives, the level of Indonesian shareholding required and other matters. Royalties have typically been 1-2%, although the government wants to increase this to around 5% in future.[10] Annual rents are around US$2 per hectare, corporate tax is around 30% and the tax on dividends 7.5%.[11]

Contract areas can cover hundreds of thousands, even millions, of hectares, although the initial area is reduced at the start of mine production.[12] The extent of concession-grabbing during the Bre-X-inspired gold rush meant that a single company could claim vast areas: Canada's Yamana Resources Inc., for example, applied for 11 concessions areas covering 2.1 million hectares, while International Pursuit wanted eight concessions covering 2.8 million hectares.[13]

Summary of Contracts of Work (CoWs) [14]

Generation	*Years*	*CoWs Signed*
1st	1967	1
2nd	1969-1972	19
3rd	1973-1983	2
3rd (revised)	1985	9
4th	1985-1990	95
5th	1991-1994	7
6th	1997	65
7th	1998	38 (171 APPLICATIONS)
8th	1999?	(38 APPLICATIONS AS AT END OF '98)

Status of Work	*Number of companies*
General survey	101
Exploration	7
Feasibility study	16
Construction	5
Production	12

Source: Minister for Mines and Energy in Jakarta Post 26/9/99

Environmental regulations

Environmental impact assessments are required under Indonesian law for mines and other large development projects, but tend to be regarded as a bureaucratic procedure rather than a genuine assessment to aid a decision as to whether a project should go ahead or not. Regulations require companies to prepare a presentation of environmental information and, if required, an environmental impact analysis (AMDAL from the Indonesian term). A government commission evaluates the AMDAL and has to accept or reject it within 90 days. If it is accepted, the company then submits an environmental management plan and an environmental monitoring plan, which, again, the authorities must accept or reject within 30 days. The Indonesian environmental NGO, WALHI, has criticised the regulations on two counts: the lack of public participation in the AMDAL process, and the weakness with which the AMDAL recommendations are applied.[15]

These weaknesses are compounded by the Indonesian state's abysmal record on bringing to book those companies that break environmental regulations. It is usually left to environmental NGOs and local communities to take legal action. The chances of making the polluter pay are remote.

Weak implementation of the law means that regulatory improvements have less impact than they should. For instance, new rules introduced in 1997 covering erosion control, toxic tailings ponds and a requirement for companies to pay a "reclamation deposit"[16] look good on paper but make little difference unless they are properly enforced.

Social requirements

Until now, provisions to assess and mitigate social impacts have not figured prominently in environmental or mining regulations. The eighth generation Contract of Work, under preparation during 1998/9, is supposed to include a better defined measure of commitment to community programmes. According to Director General of Mining Rozik B. Soetjipto, these programmes should be drawn up during the feasibility study *"with informal leaders of the communities living around the mines"*. Community development consultancy firms will have to be hired to carry out the work.[17] Whether this will prove acceptable to local communities or not is questionable since they still will not have the option to reject mining projects on their lands. Without such a veto, community involvement remains one of damage limitation.

Small-scale mining

Mining in Indonesia is by no means the sole preserve of large commercial companies. Small-scale mining has been practised in many parts of the archipelago for centuries both by local indigenous peoples and by settler and migrant communities. The government has done little to cater for small-scale miners, or to provide assistance in developing mining methods which will reduce health and environmental hazards. Instead, these miners are stigmatised as "illegals", subjected to intimidation, arrest and detention and deprived of an important source of income. Around the Pongkor gold mine in West Java, for example, small-scale miners are regularly shot at; many die when mine shafts and tunnels collapse.[18] In some areas, government officials who side with mining investors fail to differentiate between local people using traditional mining methods (usually river panning) and outsiders, some of whom are organised groups, who use more environmentally-damaging methods using mercury and cyanide to process the ore.

The only official support or recognition of small-scale miners has been under the government's small-scale mining programme (PSK). This parcels out mining plots called Peoples' Mining Areas (WPR) to groups of small-scale miners organised as co-operatives. In December 1998, the government announced a new initiative to try to solve the "problem" of unlicensed miners and to tackle poverty around mining locations. A joint ministerial decision was issued to persuade small-scale miners to join mining co-operatives and gain legal recognition. Each co-operative would be entitled to a mining area of 100 hectares.[19] This failed to address the need for official recognition of indigenous miners' resource rights and provided little incentive to other small-scale miners to change their mining practices.

The Canada – Indonesia mining partnership

Canada is one of the major mining investors in Indonesia, along with Australia, Japan and Britain; the largest of all, however, is the United States.[20] Canada's Jakarta embassy lists over 60 Canadian companies active in Indonesia with resident offices in the country, seven of which are mining companies:

Inco *(see page 77)* and Ingold *(see page 80)*;
International Pursuit;
Minorca Resources (interests in properties in North Sumatra and West Java);
Pacific Amber Resources;
Placer Dome (interest in Kalimantan); and
Teck Corporation (seven CoWs in Sumatra, Kalimantan and West Papua).

At least 10 other companies provide services to the mining sector.[21] But this official list is just the tip of the iceberg. A quick perusal of the mining industry press indicates dozens of Canadian mining companies active in Indonesia.[22] These include:

Weda Bay Minerals Inc., which has completed studies for a nickel and cobalt mine on Halmahera Island in Maluku; it may well be planning to dump the tailings on the sea-bed.[23]

Indochina Goldfields, controlled by Canada's most well-known mining magnate, Robert Friedland, with interests in Kalimantan and Java. Friedland has interests in many other Indonesian ventures: through Ivanhoe Capital Corp. in Birch Mountain Resources Ltd. (600,000 hectare CoW in West Kalimantan); First Dynasty (CoW in West Papua and an option on the Gunung Pongkor Gold mine in West Java). Friedland is also the largest single shareholder in Inco Ltd.

Indo Metals Ltd., in a joint venture with Inco's subsidiary Ingold, in Maluku.

Ag Armeno Mines and Minerals Inc., which is fighting a battle in the courts against US gold mining giant Newmont and Indonesian businessman Jusuf Merukh for breach of an agreement which would secure the company an effective 18% share in the large gold-copper-silver mine now under construction on Sumbawa Island.[24]

International Skyline Corp., which announced in 1995 that it would acquire an interest in 5.2 million hectares in West Papua, by buying into the Indonesian Mutiara Resources Group.[25]

The Canadian government has been assisting Canadian mining companies in Indonesia since the early days when its Export Development Corporation provided a large chunk of the financing for Inco's nickel mine in south-east Sulawesi.[26] More recently, Canadian officials took action to counter the negative publicity following the Busang scandal and to boost confidence in Canadian companies. In November 1997, the Canadian embassy in Jakarta organised a two-day seminar on Indonesian-Canadian co-operation in the mining sector along with the Prospectors and Developers Association of Canada and the Association of Indonesian Mining Professionals (PERHAPI).[27] Ambassador Smith said

"I believe the seminar is an important step in building Canadian-Indonesian relations, and will contribute to our mutual understanding and trust in the mining industry."[28]

Post-Suharto developments

In May 1998, the Suharto era came to an undignified end. After months of street protests and a mounting economic crisis, the ageing dictator was forced to resign. Rescuing the economy has been a main focus of Suharto's successor, B.J. Habibie, who agreed to adhere to an economic reform programme drawn up by the International Monetary Fund (IMF), thereby securing further instalments from a US$43 billion bail-out loan package. The IMF has been criticised for its programme's reliance on the exploitation of natural resources and the sale of state assets (including state-owned mining companies) to generate funds.

Indonesia is also under pressure to open itself to more foreign investment, but it must strike a balance between generating enough cash to service its huge debts and ensuring it does not put off investors by asking for too high a share of the profits. This probably means that Jakarta will have to try to attract mining companies with incentives like cheap labour, low-cost easily available land and low environmental costs.

How much will Indonesia have to offer before the investors come back? Two years after Indonesia's economy crashed, investor confidence in mining has not yet returned because of the combined effect of the Busang scandal and continuing political and financial uncertainty. By the end of 1998, there were only 13 applications for non-coal Eighth generation CoWs compared with 239 applications at the height of the Bre-X gold rush in 1996.[29] But the "success" of the June 1999 elections—they passed peacefully in most areas—may renew investor confidence in Indonesia. The bargain basement prices may be hard to resist for much longer. The Canadian embassy in Jakarta thinks the time is ripe. According to a report on its website,

"this is a one-time buying opportunity, and the price of entry to the market is at the lowest it has been for decades for the foreign investor."[30]

Resources and regional autonomy

As well as answering to the IMF, Habibie's interim government tried to accommodate demands from resource-rich regions for a share in revenues generated by industries like mining, oil and gas, and forestry. It knew it must try to raise revenues from resource-based industries to pay back its debts, but it was also compelled to offer the regions a bigger share in order to head off demands for more autonomy and, in some areas, calls for independence.

In April 1999, the Indonesian parliament passed two new laws on regional autonomy and fiscal balance. The Law on Intergovernmental Fiscal Relations offers provinces 15% of the government's share of net oil revenues, 30% of gas revenues and 80% of its income from forestry, mining and fisheries. The law on regional autonomy devolves some powers to the regions, but critics say the changes are too little too late and will do little to quell increasing mistrust of the central government in Jakarta.[31]

Among NGOs and people's organisations, there is concern that the laws are one-sided and fail to guarantee democratic process at the local level. Without guarantees of genuine community participation in decisions about resource management, power may well be transferred from Jakarta only to be concentrated instead in the hands of local elites.[32]

In addition to the new legislation, some long-standing laws are in the process of being overhauled, including the 1967 Mining Law. The new mining law, which was not yet complete at the time of writing in mid-1999, is designed to accord with the new laws on regional autonomy and allow for a greater portion of revenues to accrue to local administrations. According to mining officials, the new law will replace the CoW system with a standard

licence applicable to both foreign and domestic mining companies. Director-General of Mines Rozik Soetjipto has said the new law will give regional governments more autonomy in managing their mining resources with Jakarta adopting a more supervisory role. In accordance with the 80-20 split set out under the new Fiscal Relations law, division of land rents and royalties will be 64% to district governments, 16% to provincial governments and 20% to the central government.[33]

Regulations drawn up under President Suharto did, in theory, allow local administrations to retain a small portion of revenues but, as Mines and Energy Minister Kuntoro Mangkusubroto himself admitted in 1999, mining companies could not meet this contractual obligation because of a conflicting government regulation which said they must deliver all royalties and rent to Jakarta.

People's movements

The recent relaxing of political controls in Indonesia has led to the growth of people's movements and a greater confidence among disadvantaged groups to speak out and defend their rights. The movements range from the urban poor to the new national indigenous peoples' organisation, the Alliance of Indigenous Peoples of the Archipelago (AMAN), founded in March 1999. Farmers groups and labour unions established before the resignation of President Suharto have also been gaining strength, particularly on Sumatra and Java.

High on the list of demands from both indigenous peoples and farmers is the need to change the way Indonesia's natural resources are managed and recognition of community and *adat* or customary rights over lands and resources. Farmers organisations are calling for "agrarian justice" which includes land reform, ecological sustainability and gender equality. At the first ever national conference of indigenous peoples, AMAN demanded that their sovereign rights to lands and resources be recognised by the government. They called for all laws which violate their rights to be withdrawn and an end to military intervention in civil society. AMAN also rejected discrimination at the hands of the state with the official use of language such as *"isolated tribes"* (*suku suku terasing*) and the use of the term *"state-owned land"* for forests and other indigenous lands.

> *"We will not acknowledge the State, if the State does not acknowledge us!"*[34]

There seems little doubt that, in future, these organisations will play a more significant role in deciding how Indonesia's resources, including its minerals, are managed.

Mining as a problem industry

In 1995, revelations of appalling human rights abuse associated with Freeport's gold and copper mine in West Papua were widely publicised in Indonesia and abroad. More than any other single issue, this raised the profile of mining in Indonesia and its potential for social and environmental damage. Freeport came under fire from the West Papuan community, NGOs, parliamentarians and the media in Indonesia. Back home in the United States, the company faced criticism from shareholder groups and a lawsuit filed by members of the indigenous Amungme community whose territory it had ravaged.

The Freeport case became so well-known that it was cited by other mining companies as an example of how not to do business in Indonesia. Before then, opposition to mining had not been widely reported in the national press, and disputes remained largely localised and ignored. One of the main impediments to the spread of information was the isolation of major mine sites (including Freeport's West Papua mine) and control over information by both the company and government.

Later in 1995, the first ever NGO advocacy and networking workshop on the impacts of mining was held in Banjarmasin, South Kalimantan. Organised by the prominent environmental NGO, WALHI, this meeting spurred the development of more NGO networking on mining and greater interest in research and campaigning.[35] WALHI had already become involved in a high profile campaign on Freeport and collaborated in several other campaigning cases in Kalimantan. A new network of NGOs interested in mining issues, JATAM, was founded on the initiative of WALHI, fellow Indonesian NGO, ELSAM, and Oxfam Australia. At the same time, better access to communications technology (particularly fax and email) helped to raise awareness of the problems of mining among community groups and NGOs.

In 1998, the world's largest mining company, the UK-based Rio Tinto, was forced to open direct negotiations with the indigenous Dayak community affected by its gold mining operations at Kelian, East Kalimantan. This was achieved by the community's persistence in pressing for fair treatment in the face of arrest, intimidation and violence at the hands of the local authorities. Backed by a concerted international campaign, the negotiations, which are still ongoing, have made some progress on community demands for compensation for land lost to the mine.[36] These signs of improvement have led to Rio Tinto's participation in the World Bank's Business Partners for Development programme. This, according to Rio Tinto, brings together the private sector, NGOs and governments to tackle situations *"in which all have an interest but not much chance*

on their own".[37] Rio Tinto is involved in a project which aims to establish "best practice" procedures for mine closure—the Kelian mine is expected to close in the year 2004.

Better communications, stronger organisations and more effective networking, as well as an improved political climate in Indonesia, should mean that communities are better placed to deal with mining companies in their areas. They should also be in a stronger position to negotiate with the government on policy decisions and to influence directly the way mining companies do business in Indonesia. But the IMF's economic recovery programme for Indonesia with its emphasis on cash-generation by resource exploitation, as well as the sheer burden of debt itself, will make their job much harder.

Case studies

PT Inco Indonesia

> *"The 1990s is going to be the decade of the environment and by the time the year 2000 comes all of us will be committed environmentalists."*
>
> —Roy Aitken, Inco Executive Vice President, May 1989.[38]

Ten years after Inco's Executive Vice President declared the 1990s *"the decade of the environment"*, the company's huge nickel mining and smelting complex at Soroako on the island of Sulawesi is still a major polluter and despoiler of the environment. Dust clouds spill out of the smelter's smokestacks, while hills and valleys have been stripped bare of their rainforests and rice paddies. Past injustices over land and resources have not been resolved and an expansion programme will oust yet more families, indigenous peoples as well as settlers, from an area targeted for further strip-mining. The company's health and safety record remains poor: in the past nine years, there have been at least two fatal accidents claiming 11 lives.[39]

Despite this reality, Inco has gained a reputation as one of the more benign foreign mining operations in Indonesia. Indeed, Inco's public relations efforts have been so successful that, according to one business journalist, Freeport representatives have visited Soroako

> *"to learn how a mine in Indonesia can be successfully managed without incurring conflict among workers and criticism of environmental damage."*[40]

Inco's competition, notably the Freeport/Rio Tinto mine in West Papua, certainly makes it easier for the company to appear respectable. Compared to the Freeport mine, Inco's operations at Soroako in south Sulawesi are better in several ways. There are more Indonesians employed at the mine: out of a workforce of 3,000, only 21 are expatriates (although the Indonesian workers are not necessarily from the local area), and pay is good by local standards.[41] The company has not had to rely to the same extent as Freeport on the Indonesian military to guard the mine site and suppress opposition among local people—although twice, when the company laid off workers, troops were brought in to ensure security.[42] It is probable, too, that Inco has benefited from the bad public image of Freeport: while attention has been focussed on Freeport's West Papua mine, Inco's own operations have largely escaped the critical public attention they warrant.

Inco was the second foreign mining investor to enter Indonesia during the Suharto era. In 1967, just months after installing himself as president, Suharto issued an international invitation to mining companies to exploit Sulawesi's nickel reserves. Inco's bid found favour and its 30-year Contract of Work (CoW) was signed in 1968. This leased the company a total of 6.6 million hectares, (subsequently reduced to 218,000 hectares) in a remote, rainforested mountainous region around Lake Matano in the province of south Sulawesi. The CoW also extended to parts of south-east and central Sulawesi. Inco leased the land cheaply—just US$1 per hectare was paid to the Jakarta authorities. Costs were also kept low by the state land acquisition process which denied local communities adequate compensation. Labour was cheap, too, and unorganised.

Construction at the mine started in 1973 with financial backing from six Japanese companies, Canada's EDC, the USA's ExIm Bank and the government export credit agencies of Australia, Norway, UK and Japan. The initial capital investment was US$1 billion—the largest single start-up approved by Suharto at the time. Apart from the mine and smelter, facilities included an airstrip, port site and, in the company town, a nine-hole golf course. Indonesia's second biggest mining enclave (after Freeport's "Copper Town" in West Papua) was born.

Impacts

> *"In the hours just after dawn Marna steps out with a group of women and elderly men from Soroako…They walk across their former rice fields – now a corporate golf course. After a two-hour trek they reach the only land available for crops. The rest has been claimed for mining development…"*
>
> —Kathy Robinson, 'A bitter harvest' in *New Internationalist*, March 1998

Life changed irrevocably for local people living around Inco's mine and smelting operations. Farmland and resource-rich forests were lost, and the traditional indigenous means of livelihood largely destroyed. Social divisions were created within the community, while the influx of men from outside led to prostitution and "contract wives" among local women.

In her 1986 book, *Stepchildren of Progress,* anthropologist Kathy Robinson documented many of the social and environmental impacts of the mine in its early years of production. She described the long dispute over compensation for land (the best and most accessible agricultural land was appropriated for the company town-site); the villagers' struggle for clean water; the strict segregation of employees and villagers; and the inequalities between foreign and Indonesian staff.[43]

Lives were also changed by the 165 megawatt hydroelectric dam Inco built on the Larona river to provide cheap electricity for its operations during the oil crises of the 1970s. The dam flooded ricefields, coconut plantations and a mosque belonging to villagers living around Lake Towuti from which the river flows.[44]

Despite the favourable terms of its contract, PT Inco Indonesia was heavily in debt to its parent company and thus did not start making a profit until 1987. The following year, a 20% share of the company was sold to Japan's Sumitomo Metal Mining Co., which also agreed to buy 20% of the mine's output and contribute to a US$83 million expansion programme. In May 1990, the company sold another 20% of its shares on the Jakarta stock exchange, fulfilling its contractual obligation to transfer ownership of part of the company. This first expansion programme was completed in 1991. By then, production had more than doubled from an initial start-up capacity in 1978 of 35 million pounds (17,292 tonnes) of nickel matte to 75.9 million pounds (37,500 tonnes).

The impact on the environment was severe. Water and air pollution took a heavy toll; run-off from strip-mining fouled the water courses while the smelter's smoke stacks belched out clouds of dust which spread for miles around. Inco's environmental policy statements promised that the company would *"strive to minimize any potential adverse impact of its operations on its employees, customers, the general public and the environment"*,[45] but it showed a markedly lower commitment to such standards in Indonesia than it did in Canada, where the Ontario provincial administration ordered the company to cut its emissions drastically at its Sudbury nickel smelter. Inco was notorious as Canada's biggest emitter of sulphur dioxide—a major cause of forest-destroying acid rain—because of this plant. The impact of clean-up action in Canada and the lack of urgency to do the same in Indonesia are reflected in the relative production costs of the two mines. From 1980-1985, Indonesian and Canadian costs were roughly equal, but by 1991 Canadian production costs had more than doubled relative to the Sulawesi plant's costs.[46] In 1994, Inco admitted that its Indonesian plant was emitting dust levels of 1.98g per cubic metre—more than three times above the statutory limit of 0.6g per cubic metre. (Dust is the main pollution problem at Soroako; the sulphur content of the ore is well below that of Sudbury).

Improvements were introduced at Soroako but gradually because of the costs. By 1996, a programme to install electrostatic precipitators to reduce dust emissions was underway, and the highest levels of emissions, according to the company, had been reduced to 0.7g per cubic metre.[47] The programme has still not been completed and, although officially "well advanced", no completion date has yet been fixed.

On a visit to the mine in early 1999, mining critic Roger Moody saw the results of this slow pace of improvement. They included *"blankets of ash and dust"* on vegetation in the concession area and, in a clove plantation 10km from the smelting complex:

"…the 'crowns' on upper branched, the ragged mis-shaping of leaves, and sickly patches on the bark, familiar to those who observe the impacts of smelters on forests in the northern hemisphere."

Local people also blame the smelter's pollution for a high incidence of colds, 'flu and asthma (particularly among the children).[48]

© ROGER MOODY



Inco's nickel smelter generating atmospheric pollution in Sulawesi, Indonesia.

High costs not only slowed down the pollution reduction programme: they also appear to have affected the rehabilitation of mined areas. The company literature points to successful re-greening efforts, but results on the ground are patchy. On his 1999 trip to Soroako, Moody found some success on gentler slopes where care was taken to conserve the topsoil. On steeper slopes, however, few trees were growing while others resembled *"gigantic rust-red ant-hills—suitable for motorbike scrambling, but little else."* [49]



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Evidence of Inco's failure to re-seed and rehabilitate some of its early workings in the centre of Soroako, Indonesia.

Further expansion

In 1996, Inco negotiated a new Contract of Work which extended the company's operating licence to the year 2025 and provided for a further major expansion of mining and smelting to produce 150 million pounds (68,000 tonnes) of nickel matte by the year 2000. Longer term, two more smelters were planned in central and south-east Sulawesi, which would raise capacity to 220 million pounds (100,000 tonnes) per year.[50]

Under the expansion programme, as yet incomplete, the Soroako smelting complex gets a fourth smelting line, and the Larona river gets another two hydro-dams for which there has been no public review process or published environmental or social impact assessment.[51] [iii] The land rent, payable to the government, has been increased to US$1.50 per hectare.

The extended contract also commits Inco to developing two other nickel deposits. One is in Pomalaa, 400km south of Soroako in south-east Sulawesi, the other in the Bahodopi-Bahumatefe area in central Sulawesi, about 80km north-east of Soroako.[52]

By 1999, Inco was severely disrupting life both for the indigenous community and settler families in central Sulawesi whose lands fall within the company's concession. The village of Bahumatefe, home to around 117 families, lies 25km south of Bungku on the eastern coast of the province. Its population consists of indigenous Bungku people along with families from other parts of Sulawesi. The community makes a living by farming rice, cacao, coconuts and cashews. They also gather forest products, such as rattan, and fish in the coastal waters. The indigenous Bungku have their own customary (*adat*) land claims system.

In 1999, the villagers were refusing to move to a relocation site inland, insisting that they wanted to stay on their ancestral land. According to Roger Moody, who visited Bahumatefe in March that year, the Bungku at Bahumatefe know full well what may be in store for them. As far as Inco was concerned, they would be no pushover.

> *"The Bungku live only 80km from Soroako and they have first hand experience of the devastation caused there. They have also had to swallow a hefty thirty year dose of the corporation's practices upon their own territory. Some 50,000 tonnes of ore has been ripped from 'test pits'—a euphemism for excavations the size of a motel—now fringed with twisted trees and trampled vegetation."*[53]

These pits, which appeared in the forests and plantations belonging to the Bungku, were dug without the permission of the community. Compensation for trees was dismally low. Villagers were visited by Inco staff—accompanied by the members of the security forces—and forced to sign receipts saying they had received payment for handing over their land. Those who refused were paid further visits by members of the local administration and military, and accused of being dissidents.[54]

The villagers were also aware of recent developments at the Kelian gold mine over in Kalimantan, operated by Britain's Rio Tinto, where the company had been forced to renegotiate a similar compensation with the local Dayak community. The Bahumatefe villagers had seen how a small indigenous community could stand up to an international mining corporation.

The settler community affected by Inco's expansion, (around 3,000 people), had been moved onto their allotted farm plots near Bahumatefe in the early 1990s under the notorious Indonesian government-sponsored transmigration programme. In a classic case of bureaucratic ineptitude, a transmigration site had been drawn up in an area which overlapped with Inco's concession and the relevant departments had either failed to notice it or had chosen to ignore it. Then, Inco informed the authorities that it wanted the area cleared so it could be strip-mined for nickel ore. Some of the transmigrant families refused to move to a new, marshy site near Lake Poso to the north, which was offered as a replacement. The settlers had worked hard on their farms in Bahumatefe and, against many odds, had made it their home. They said they would be willing to move, but only if each family received 40 million Rupiahs (US$5,000) in compensation as well as adequate cultivable land for the future. The provincial government was willing to allocate only a fraction of this amount for relocation.[55]

[iii] A report by Roger Moody also notes that when the Larona River ran low causing a drop in hydro-power and reduction in nickel production, Inco set about dredging the river bed. *"Whatever the long term deleterious ecological effects of such drastic action"* writes Moody, *"once again they didn't get publicly scrutinised in Indonesia."*

Prospects

PT Inco's long-term expansion plans were thrown into doubt in 1998, as the Asian economic crisis drastically reduced demand and depressed nickel prices. The company was once again reporting losses—US$3.7 million in the final quarter of that year—and, compared to 1997-1998, profits had plummeted by 75% from US$24.3 million to US$6.2 million.[56] Its long-term debts had increased by US$130 million in the first nine months of that year to US$421.3 million in order to finance the expansion. Delays in completing the new dam had pushed expansion costs 10% over the original estimate of US$580 million.[57]

The wider political landscape was also transforming itself beyond recognition. Suharto resigned and democratic elections were promised. Better opportunities for organisation and improved access to government policy-makers were gradually opening more political space for the demands of indigenous peoples and rural communities.

Inco has made some improvements in its treatment of local people. Villagers have been given more access to some of the company facilities—improved medical services were particularly valued by local women, according to Kathy Robinson. But the dispute over land—the most fundamental issue for local people—remains unresolved. Some 31 years after Inco's contract was first signed, local people are no more in control of what happens on their lands than they were in 1968. They had no say over whether or not there should be a huge mining complex built in Soroako, nor any input into the decisions to expand the mining and smelting operations. Still indigenous communities play no real part in decisions about mining on their lands.

In this regard, company practices in Indonesia differ tellingly once again from their operations in Canada. There, the company was required to negotiate directly with representatives of the indigenous Innu and Inuit Nations after acquiring rights to the huge Voisey's Bay nickel deposit in Labrador. In March 1999, the go-ahead was given for the mine, but on condition that the indigenous Innu people resolve their land claims and demands before construction commences.[58] Indigenous communities in Sulawesi have every reason to demand and expect the same treatment.

Early in 1999, change appeared to have reached Soroako. A January demonstration by local people for a resolution to the long-running compensation dispute elicited a response: the Canadian ambassador flew to Soroako, and Inco reopened the long-stalled negotiations. (An earlier protest in 1974 had prompted the usual heavy-handed response: protesters were arrested and detained without trial for a week.) In March, however, the talks were suddenly called off by Inco and there has been no resumption at the time of writing.[59]

Inco is in fact in all sorts of trouble globally as well as in Indonesia. In 1998, the market price of nickel plummeted and Inco's share price nearly collapsed just after the company's acquisition of rights to the Voisey's Bay nickel deposit. This new investment geared up the company's borrowings to US$4.3 billion and brought the company into conflict with indigenous land-holders.[60] Rumours circulated that Inco would be subject to a hostile takeover bid. At the same time, low-cost competition from Russia, Cuba, New Caledonia (Kanaky) and, potentially, Australia, were threatening its share of the world nickel market.

These pressures mean that Inco may opt to scale down its ambitious plans in Indonesia, at least until world nickel prices pick up. But, whatever the decision about long-term expansion, the company is bound to meet more vocal and organised opposition to its environmentally-destructive and socially-disruptive way of working in Indonesia.

Ingold, Indo Metals

In 1985, a village community on the small island of Haruku in the Maluku province won a national conservation prize for their sustainable management of natural resources. They were applying the traditional local system of *Sasi*, which limits the amount of fish and other resources harvested in order to maintain long-term supplies.

Then came the mining companies. Stakes appeared on community land, signs were put up and heavy machinery started drilling on the banks of the Wai Ira river. The signs said (ironically for a mining company) "Damaging the Forest is Prohibited". But these forests were traditionally-held community lands; resources gathered from them provided an important part of the village's livelihood. Waste material from the drilling began to muddy the river water, used by local peoples for bathing, laundry and other everyday needs. Their traditional fish farms became contaminated with oil, clouded with mud and the *lompa* fish started dying. *"The prospecting for gold which they've been engaged in for the past four years is threatening our peaceful way of life on the island,"* said village head Elly Kissaya.[61]

The companies responsible were Ingold Holdings Indonesia Inc., a subsidiary of Inco, and a state-controlled mining company, PT Aneka Tambang.

In 1991, Aneka Tambang had carried out initial exploration work in a 100,000 hectare concession area covering Haruku and three other islands (Ambon, Nusa Laut and Saparua) in Maluku province. In 1993, Ingold was brought in to take a closer look. Ingold already had a presence in Indonesia with Contracts of Work (CoW) in Sumatra and West Papua, where it

had earlier conducted exploration work on lands traditionally owned by the indigenous Ngalum people.[62] On Haruku, the company spent US$2 million on exploration and found high levels of lead, zinc and silver before its parent, Inco, decided in 1997 to rein in spending and farm the project out to Indo Metals, a Canadian junior company with close links to Inco. Indo Metals' president, James Clucas, had spent 14 years with Inco. In the post-Busang period of uncertainty for Canadian mining companies, he said, *"I feel real comfortable with the cloak of Inco around us."*[63]

On Haruku, however, the community was not feeling comfortable. In 1996, the year before Indo Metals was brought in, the community had been reassured by the head of the Maluku Environment Bureau that there would not be a mine on the island because the provincial governor had banned mining on small inhabited islands in Maluku. *"We are confused about the legal status [of this decision],"* said Elly Kissaya, pointing out that both Ingold and Aneka Tambang had permits signed by local officials. *"How are we supposed to carry out the sustainable development which the government says it wants?"*

More work on the project got underway in 1997. The joint-venture agreement gave Indo Metals the opportunity to acquire 49% of Ingold's 80-85% ownership of the project by spending US$8.25 million in further exploration. In mid-1997, Indo Metals planned to fund 16 or 17 shallow drill holes at a cost of US$3 million, but difficulties in funding pared the programme down.

Around the same time, the community and its supporters on the neighbouring island of Ambon and beyond were organising to oppose mining on the island. Letters of concern were sent to the provincial governor, environmental office and local authorities. In April 1997, public meetings were held in Haruku and Sameth villages—this was the first opportunity for the community to get information from the company about their activities. The villagers were also able to express their concerns about the lack of information, land rights and their fears for the future.

A survey of villagers conducted by the Haruku Island Solidarity Forum, a local network of NGOs, academics and villagers, found that there was overwhelming concern in all villages on the island about the impacts of the exploration work. Many people had heard that they would be moved off their land if mining went ahead to which there was unanimous opposition. One respondent said that it would be better to die than leave the land, while another recommended that if they were forced to move, the people should hold an *adat* (customary) ceremony to bring death to anyone who worked at the mine.

According to the survey, environmental impacts were already considered severe. Most were associated with water pollution. Sago processing, which relies on clean water, was disrupted; the number of fish and shellfish in the river and the marine fishery at the river mouth was in decline; coral reef and seagrass areas near the river mouth had been smothered by sediment. At the same time, the community had little knowledge of mines in other parts of the country, nor how large an area a commercial mine occupies. Nobody interviewed in the survey mentioned the problems related to large mines—the disposal of huge volumes of rock and tailings; the need for power generation; port facilities for transporting ore from the island—and what these might mean for the local fisheries habitat.[64]

Later in 1997, the community came into direct conflict with the mining company and were rudely reminded how often mining companies rely on the state to assist them in removing obstacles from their path. One villager, angry that the company had staked out his land and dug bore holes, removed the marker posts and demanded compensation from Ingold. The company and local administration ignored his requests for a meeting and the police accused him of theft. In the following weeks, the same villager removed electric cables from his family's land, was summoned to the local police station and immediately thrown into jail. Protests by other villagers were met with intimidation from the local authorities. The Haruku Island Solidarity Forum appealed to the National Commission for Human Rights to take up the case.[65]

Until now, the lack of financing for further exploration has bought time for the Haruku Islanders—but further disruption now seems assured. In 1999, it was announced that Japan's Dowa Mining was being brought in to finance more exploration work. Under this agreement, Dowa could earn up to 49% of Maluku Holdings—another Inco subsidiary now involved in the project—by contributing exploration funding over three years.[66]

In 1992, Ingold President Director B.N. Wahju wrote that Ingold's policy was *"to respect the laws of the land and the rights of the indigenous people."* That claim, which related to Ngalum lands in West Papua was impossible to verify independently in an area closed to outsiders, and where the Indonesian military was attempting to destroy armed resistance to the government's rule. The company's activities on Haruku since then gives some indication of how far Ingold's respect for indigenous rights stretches. Once again, it will be up to the islanders and their supporters to protect their resources and their sustainable livelihoods.

Reflections and Recommendations

Reflections

THE CASE STUDIES in this report provide clear evidence of the Canadian mining industry's lamentable record of social and environmental damage. The catalogue of disasters spans continents and decades, and represents serious and permanent damage to the health of peoples and their environments. The recurrence of such disasters perpetrated by a range of companies, including major operators, indicates that a considerable number of mining operations remain below the standards for safety and environmental protection that society can or should accept. Although this report has focused on Canadian mining companies in particular, similar problems are generated by the mining industry in general.

Most new mining projects are being increasingly opposed by the communities directly affected by them. Mining frequently results in loss of livelihood and significant impoverishment to specific social sectors and groups: subsistence farmers, fisherfolk, artisanal miners, women and children are among those most adversely affected. Although such opposition is not confined to indigenous communities, it is sharpest in areas where mining would destroy sacred sites, subsistence livelihoods, and the lands and places upon which indigenous identities are based. Clearly, as long as mining continues to generate wealth for shareholders at the expense of local communities' livelihoods and the long-term health of the environment that sustains them, stronger opposition is likely to be mounted against it.

"The industry standard for engineering tailings empoundment can now be judged to be inadequate."

—INTERVIEW WITH MANFRED MALONEY, CANADIAN STOCKBROKER, IN "THE UGLY CANADIAN", CBC NATIONAL MAGAZINE 1998

Today, increasing concern about the negative impacts of mining, combined with swifter and more effective methods of communication, means that information about the abuses and damages caused by mining in remote interior locations around the world now reaches a wide audience. Inevitably this is beginning to affect the industry. Those whose lives and livelihoods were ruined by the Omai disaster in Guyana have tried, albeit without success, to gain redress through the Canadian courts while Placer Dome's shareholders have begun to challenge the record of the company's overseas operations at Annual General Meetings and elsewhere. Community campaigns are becoming increasingly effective. If the mining industry does not radically reform in response to its critics, such campaigns could be damaging to companies, affecting long-term corporate capacity to secure funding, new investors and mining properties, and maintain high profits.

Because corporate mining is a large scale extractive industry employing invasive techniques and generally using and releasing toxic materials into the environment it inevitably poses serious problems in environmental management. Yet, mines are now increasingly found in environmentally and socially sensitive areas, especially in places of high biodiversity and indigenous territories. This can cause causing an intensification of tensions and conflicts over rights of access to resources, a problem compounded by communities' loss of trust in mining companies. The suspicion about corporate intentions has been exacerbated in recent years by some of the unilateral initiatives launched by some companies to improve their image. While the rhetoric of mining companies may be changing it is highly questionable whether this is matched by an equal shift in practice.

Some NGOs, particularly northern-based ones, have taken companies at their word and are increasingly "engaging" with mining corporations in discussion of environmental issues. Discussions of this kind are, however, opposed by most affected communities because they allow the divorce of environmental issues from the social ones of affected peoples. Communities want to ensure that their central right—for a degree of community control over whether or not mining should proceed in their area and, if so, by what standards should it operate and to who should it be accountable—be respected.

The environmental problems created by mining clearly must be addressed. But without a profound shift towards the recognition of the rights of affected communities in decision-making about mining, any environmental improvements are unlikely to resolve the underlying problems besetting the industry. Indeed, some technical "advances" which have been adopted or proposed unilaterally by the industry, including, for example, submarine tailings disposal, are viewed by potentially affected communities as a further cost and escalation of environmental impacts rather than the required reduction.

The recommendations below are mainly derived from the evidence presented above and are founded on the central principle of the need to recognise and respect the rights of the local communities most directly affected by mining. They focus on social and environmental issues, unresolved problems from mining disasters, national policies, mining finance, and so called "codes of conduct". Inevitably, many important issues including especially worker rights fall outside the scope or capacity of this report.

The proposals are mainly directed at regulatory bodies, national and international agencies, and NGOs rather than directly at mining companies. Recent one-sided and pre-emptive initiatives put forward by industry advocates have done much to deepen mistrust of confusion. It is therefore our view that fewer rather than more of such initiatives is the current need. Constructive initiatives must, we believe, first gain the support of affected communities, which are the best placed to weigh the impacts and benefits of mining.

We hope that the comments and recommendations contained in this report can contribute to a wider and essential debate on mining, centred on, and informed by, the wide range of direct experience of affected peoples and communities, and on resolving the problems they experience.

Social issues: recommendations

Recognise and respect indigenous rights

§ Pursuant to the right of all peoples, including indigenous peoples, to self-determination (as defined in common article 1 of the international covenants on human rights adopted by the United Nations (UN) in 1966 and in the UN Draft Declaration on the Rights of Indigenous Peoples), indigenous title to and jurisdiction over their lands, territories and resources, subsurface and otherwise, must be recognised and accounted for in domestic legislation and international policy and practice.

§ The principle of free, prior and informed consent must be applied to mining activities that may impact upon indigenous peoples and local communities. Such consent must be sought and gained prior to or at the very beginning of a mining development plan. The right of indigenous peoples to determine what development shall or shall not take place on their lands, including the right to reject destructive or otherwise unacceptable development, must be respected.

"Don't turn your back on any process they start, even if it's bullshit, because you have to engage to have a voice."

"What is the advantage of staying in the process? Every time someone comes to see us they go away and say that was consent."

—"Between a Rock and a Hard Place: Aboriginal Communities and Mining", September, 1999, Innu Nation/MiningWatch Canada

§ The mining industry must comply with existing international law and emerging international and national standards. Companies wishing to develop mineral projects should be required to demonstrate that they enjoy the necessary local support based on free and informed decision making and respect for local institutions.

§ The Canadian Government should support the passage through the UN structure of the Draft Declaration on the Rights of Indigenous Peoples and should enact national legislation and other measures that require Canadian government agencies and mining companies to operate according to its principles both domestically and overseas.

§ The Canadian Government should implement the recommendations of the (Canadian) Royal Commission on Aboriginal Peoples.

§ Countries which have yet to recognise indigenous rights according to international standards, or mining projects in which it proves impossible to operate to standards respecting local rights, must be excluded from exploration and mining programmes and to all access to sources of finance.

§ The Canadian Government and financial agencies including the stock exchanges, banks and other investors should act to prevent the operation of companies that breach such standards.

§ Key religious and cultural sites and areas devoted to essential subsistence should in general be protected from mining.

§ To ensure compliance with such standards, independent, credible monitoring agencies and accountability processes which enjoy the confidence of the affected communities and peoples must be established.

Participation

§ The rights of indigenous peoples and other affected communities to participate in all stages of decision-making concerning exploration, environmental and social impact assessment, feasibility appraisal, planning and implementation —and the right to share in the benefit of any mining projects on their lands, must become a basic accepted tenet of the mining industry.

§ Those living downstream of, or adjacent to, project sites must be included in these processes as they may well bear the brunt of the mine's pollution.

§ Concerned NGOs invited to dialogue with corporations should insist that the communities directly affected by mining be centrally involved in such dialogues.

Respect for local institutions and indigenous structures

§ All parties must recognise, respect and work through the representative institutions and processes of indigenous societies and ensure that, where called for, all agreements be legitimate and recognised according to indigenous customary law.

§ Efforts should be made to improve the awareness and sensitivity of company personnel to the ways of life of indigenous peoples and related human rights issues.

Access to information

§ Potentially-affected communities must have the right to access sufficient independent information from varied sources to inform their decision making. Currently the corporate entities committed to mining are often the main or sole source of information supplied to communities. Processes that enjoy the confidence of the affected peoples are an essential prerequisite to any credible negotiation.

§ Some communities have found in the past that exchanges between communities affected by mining, and the opportunity for communities with no previous direct experience of the processes of mining to see and discuss existing mining operations is a key aid to informed decision making. Communities should have access to sufficient resources and have sufficient time at their disposal to conduct the information gathering required for decision making. This should, where desired, include the opportunity to visit and assess the impact of similar mines elsewhere. The assessment should include the opportunity to exchange experience freely with other communities and groups.

§ The Canadian Government, major agencies, indigenous alliances and those concerned for social justice should consider ways to support the development of independent networks and information exchange initiatives among affected peoples.

§ Environmental and social impact assessments should be required of all projects before they proceed, as long as all parties, including potentially-affected

communities have given their prior informed consent to such assessments and have confidence in them. At present, many communities are suspicious of the consultancy firms that carry out such assessments because they perceive them to be too closely associated with the mining industry.

§ All information, negotiations and reporting must be available and accessible to affected communities in their own language (or a locally-acceptable language) and in culturally appropriate forms.

§ The scope of information gathering and exchange of views must include the right of communities to explore possible alternatives to mining or any specific proposal put before them.

§ Discussions or negotiations with a community should normally take place on or near their territory and area of jurisdiction.

§ Information gathering and consultations with indigenous communities should be open, based on defined procedures that are locally acceptable and free from patronage, bribery or coercion.

§ Under no circumstances should the deployment of military or para-military forces before and during these fact-finding and decision-making processes be accepted.

Negotiations

§ Where negotiations develop, their form and content should be defined by the local peoples in consultation with other concerned parties.

§ Where indigenous and other affected communities do not enjoy the right to freely assess a proposal and independently accept or reject it, no genuine negotiations can take place. Decision-making must therefore be founded on clear and prior recognition of local rights.

§ It should be recognised and respected that decision-making within indigenous societies, particularly where irrevocable change will result, is often based on consensus. The practice of securing support for a project from certain, but not all, sectors of the local community and proceeding on that basis can set in train destructive divisions which can do irreparable harm to communities and cultures.

§ A defined process and timetable for consultation, dialogue and negotiation should be developed and agreed upon. If negotiations break down, a minimum period must be defined before any discussions can be renewed to avoid dialogue itself becoming a form of harassment.

§ Community groups must retain the right and flexibility to withdraw at any stage from any engagement or negotiation if they find them unacceptable or because of what they have learned through the process of information gathering. Attempts to institute legally-binding or exclusive agreements early on in negotiations may not always be appropriate to a successful outcome.

§ Affected peoples and communities should have the right to share in the benefits derived from mining on their lands.

Women

§ Mining projects impact disproportionately and negatively on women and their status. All processes must ensure the active and meaningful participation of women in discussions, decision-making and benefit sharing in ways that are culturally appropriate.

Environmental issues: recommendations

Development and adherence to meaningful standards

§ Levels of environmental protection in mining must be raised and the precautionary principle applied. Current practice in many mines is below desired or acceptable standards. In some mines operated by Canadian companies overseas, practices do not even comply with standards within Canada. Steps should be taken to require Canadian companies to operate to best possible international practice and not to apply different (lower) standards overseas. These standards should be backed by legislation and sanctions, which are enforceable in domestic courts.

§ Many communities regard the operating methods of riverine tailings/waste disposal; submarines tailings disposal; and open pit mining as causing the worst environmental damage and are thus calling for them to be outlawed.

● Riverine tailings/waste disposal should be banned. It causes massive environmental damage but is currently practiced in several locations, including Papua New Guinea, where it is used in projects involving Canadian companies, even though such practices are not allowed in Canada.

● Submarines Tailings Disposal (STD) is rejected by environmental agencies in Canada and other centres of the mining industry, but is being promoted worldwide by mining companies. A ban on STD is called for, as a matter of urgency, by threatened and affected communities.

● Open pit mining operations are the most invasive and damaging to surface dwellers' ways of life. Many communities have called for a ban on open pit mining or at least a preference for deep mining. Communities already dependent on mining are particularly strong in this call, as open pit operations tend to bring job cuts.

§ Stricter regulations and sanctions are required to ensure that companies increase their efforts to avoid acid mine drainage, a frequent and disastrous legacy of mining, and clean up areas already affected by it. Adequate funds should be set aside to ensure that in this and other instances the polluter pays.

§ The best possible rehabilitation of areas affected by mining should be a requirement of all mining projects. Full compensation should be paid for damage caused.

§ Declared national parks, protected areas, key designated ecological zones and biodiversity hotspots should generally be excluded from mining operations. At present, there is a trend to reverse or manipulate national park designations or to change boundaries of recognised indigenous territories and protected areas so as to accommodate mining companies and other developers.

Redress

§ Communities affected by a Canadian mining company should have the right to bring their grievances to an international or Canadian-based regulatory body and, if necessary, pursue their case in the Canadian courts or other metropolitan centres. The precedent of making federal government funding available to Canadian-based indigenous peoples to bring a case could and should be extended to those overseas affected by Canadian mining projects.

§ Bonds for the clean up of mine sites and to cover worst case events and accidents should be required of all mining projects. They should be guaranteed and backed by governments and industry, international agencies and regulatory authorities.

National policy and mining finance

§ Governments should ensure that local and indigenous communities, especially those with direct experience of mining, are enabled to fully participate in national debates and policies on the mining industry.

§ The Export Development Corporation (EDC) of Canada should be answerable to Parliament and the Canadian public for its policies, contracts and operational procedures. The EDC should provide information on the plans and practice of the projects it supports.

§ The Canadian Environmental Protection Act should be strengthened and its terms expanded to cover the operations of Canadian companies overseas. In particular:

- provincial environmental protection regimes should accord with federal standards;
- legislation should be used to strengthen voluntary environmental measures including ARET (the Accelerated Reduction/Elimination of Toxics);
- the National Pollutant Release Inventory should be expanded to cover pollutants that may be used in overseas operations;
- endangered species and habitats overseas should be protected from Canadian companies' mining operations;
- additional and realistic financial resources should be made available to Environment Canada to carry out its responsibilities.

§ Multilateral development banks (MDBs), export credit, and political risk insurance agencies, and other government or intergovernmental funding sources should not extend funding to any mining project which fails to follow the principles and standards highlighted above and those already existing in international and national legislation to which they are committed. Funding should also not be extended to any project which does not have the support of the affected communities and peoples.

§ The impacts of mining frequently results in loss of livelihoods and impoverishment of vulnerable social groups. Subsistence farmers, fisherfolk and artisanal miners are among those most adversely affected. Development banks should not give financial support to mining projects that adversely impact upon poor and vulnerable social groups.

§ United Nations agencies must remain independent of corporate sponsorship.

"Mining cannot occur without an impact on the surrounding natural environment and communities. Responsible mine operators strive to limit negative environmental and social impacts."

—Placer Dome Sustainability Policy

"Our island is already under extreme pressure from past environmental abuse. We cannot afford to take risks with our environment and future. Mindex and Dames and Moore talk about mitigating impacts and reducing risks. But we don't want mitigating measures we want no risks."

—Evelyn Cacha, Chairperson ALAMIN (Alliance Against Mindex, Mindoro, Philippines)

Voluntary codes of conduct

§ Voluntary codes of conduct have an increasing number of supporters in the mining industry. Such voluntary regimes are no substitute for legal frameworks, which are essential to regulate the mining industry especially given its proven capacity for disastrous social and environmental impact.

§ The industry and government agencies need particularly to exert regulatory control over the proliferation of dubious, unverifiable and sometimes misleading claims to good practice and sustainability which are currently rife in the industry. Adherents to unverifiable codes of conduct, in seeking to gain some commercial advantage, may mislead either communities or investors and may bring the credibility of the industry as a whole into further question.

§ Independent monitoring and reporting and the associated ability to impose sanctions, including as a minimum fines, exclusion from associations and denial of credit are essential to the operation of laws, frameworks and codes. There must be an adequate budget allocation for this purpose.

The legacy of mining and unresolved mining disasters

§ The industry must address the unresolved legacy of past mining activities including especially the environmental disasters surrounding projects such as Ok Tedi, Marcopper and Omai. There should be an honest acknowledgement of the responsibilities of corporations and their backers for past failings and a commitment to restoration measures, compensation and the payment of reparations as a prerequisite to being taken seriously in its claims to be seeking a new beginning.

Appendix

Africa: widening the belt

OVER 14% of the earth's known mineral reserves are in Africa. These include nearly all the world's platinum metals; more than three-quarters of its chromium, manganese, phosphate and cobalt; half its gold; a quarter of its bauxite; and more than 10% of its nickel and copper. Africa also supplies nearly half (45%) of the world's current mined supplies of diamonds.[1]

In 1998, more than 140 junior Canadian mining companies were active at more than 600 "properties" on the continent,[2] primarily prospecting for gold and diamonds in Ghana, Tanzania, South Africa, Guinea, Zimbabwe and Botswana. By contrast, Australian companies numbered only 75, holding less than 200 projects. According to one authority, "the *main gold belt [in Africa] coincides with the major logging and cropping zones'* ensuring that conflict over land and adverse environmental impacts (especially impairment of water resources) will *"grow in importance"*.[3]

The world's most valuable diamonds are found in Angola, with other major kimberlite "pipes" [i] in Sierra Leone and Botswana. In Angola and Sierra Leone, Canadian companies, led by Bob Friedland's company Diamondworks, have used mercenary forces to secure control of several of these fields.[4]

Listed below are some of the major mineral projects in gold and diamonds operated by Canadian companies, which are causing increasing concern among African communities and NGOs.

[i] A geological formation containing diamonds

Angola

Southern Era closed down its Angolan mines in early 1999 "for security reasons",[5] but continues exploring the world's most extensive kimberlite-pipe discovery, at Camafuca[6] along with Randgold (listed in the United Kingdom) and South African investors.[7] Diamondworks closed its Yetwene mine after the kidnapping of eight workers in an alleged UNITA-led ambush in 1998,[8] but is still active in the country.

Botswana

Opus Minerals Inc (formerly TNK Resources) and Afri-0re have exploration licences. Falconbridge has a joint venture with Anglo-De Beers (United Kingdom/South Africa), while Trivalence Mining Corp is investigating the Kokong area.[9]

Burkina Faso

Channel Resources is at Somifa, where Placer Dome is funding drilling.[10] Samafo (MSE) and Prospex (VSE) have merged their interests in 20 permits in West Africa, including 17 in Burkina Faso, where they are concentrating on small-scale mining ventures. Mutual Resources is at Seguenega and Gamo. Orezone Resources Inc (Ottawa) is at Intiedougou and Sebedougou in the south-west of the country and at Kerboule in the north.[11] The companies are interested in Burkina Faso's gold.

Central African Republic

Asquith Resources and Axmin Ltd (formerly Samax Gold, now controlled by Ashanti Goldfields of Ghana) is at Roandji in the Passandro strategic alluvial gold area.

Cote d'Ivoire (Ivory Coast)

Golden Star Resources and North Exploration are at Tanda, central-eastern Cote d'Ivoire.[12]

Democratic Republic of Congo

The Canadian Department of Foreign Affairs and International Trade (DFAIT) (see box page) in 1998 held a major investors meeting in DR Congo; the participants included the Canadian Imperial Bank of Commerce (CIBC), Trillion Resources and the Export Development Corporation (EDC).[13] The country hosts possibly the world's biggest copper-cobalt deposits at Tenke Funkurume (held by Tenke mining).[14] Barrick also has an exploration joint venture with Anglogold of South Africa.

Ghana

The Canadian International Development Association (CIDA) (see box page) in 1993 established a special fund to promote small mining projects in Ghana.[15] Alcan holds 80% of the Ghana Bauxite company at Awaso, in western Ghana. Golden Star Resources owns the Bogoso gold mine, a 100,000 ounces-a-year producing mine with financial support from a consortium that includes the World Bank's International Finance Corporation (IFC) and Deutsche Investitutions und Entwicklungsgesellschaft (DEG).[16] Other Canadian companies active in Ghana include IAMGOLD, which has a joint venture with Ashanti Goldfields, Nevsun Resources, Semafo, Prestea Sankofa, Birim Goldfields, and Golden Knight.

Guinea

Samafo is at the Jean and Gobele gold prospects, while in 1998, Trivalence Mining Corp opened its 85% owned Aredor alluvial diamond mine.[17]

Kenya

Pan African Resources (subsidiary of Golden Star Resources) is prospecting for gold around Lake Victoria.

Lesotho

Diamondworks holds mining "properties" in the country.[18]

Mali

IAMGOLD and Anglogold (South Africa) are at Sadiola Hill (which came into production in 1998). Exploration by Azco Mining is underway in Medinandi and

Dandoko. International Tournigan has three concessions in Western Aali at Diangounte west, Kolomba and Magoyafora.[19] Raynor Resources (Quebec) operates a geological exploration joint venture, with the Malian company—Comifa, 25 kilometres outside of Kenieba, and at the Bogodo Placer (alluvial) concession. Nevsun Resources Ltd (Vancouver) is at Tabakoto, Kenieba and Kakadian near Sadiola Hill. Mink International Resources is at Niaouleni. Barrick has an exploration joint venture with Anglogold of South Africa.

Mauritania

DiaMet has a 60,000 square kilometres exploration permit and recently formed a joint venture with Ashton of Australia.

Namibia

Diamond Field Resources claims to have located potentially "the most profitable sea diamond deposits known",[20] where it intends to dredge ancient underwater channels and riverbeds, and discharge waste into the marine environment.[21] The Navachab joint venture in which Inmet has a 20% holding is mining 170 kilometres north of the capital Windhoek. IAMGOLD is also active in the country.[22]

Niger

Barrick Gold, Placer Dome, Imperial Metals, along with Ashanti Goldfields (Ghana) and Etruscan Enterprises have options over the whole Liptako region. Auspex Minerals Canada has the Koulbaga concession. CIDA has also carried out detailed gold exploration in the Kossa area at Kassa-Borobon and Echo Bay has a 44% option on Koma Bangou. IAMGOLD is also active.[23]

Senegal

Barrick and IAMGOLD, along with BHP (Australia), Ashanti (Ghana), Anglogold (South Africa) and Randgold (United Kingdom), are investigating copper and gold-bearing ores near Bakel (close to the border with Mauritania and Mali) and at Tambarounda (the Sabodala deposit). IAMGOLD is also in the Banmbadji and Mako areas with Ashanti and has a third target area at Daorala-Boto. Novagold Resources and Secor are at Bounsankoba, while Reunion has permits in eastern Senegal. Anglogold and Barrick are active in Southeast Senegal (with IAMGOLD holding an option to participate).

Sierra Leone

Cassierra has a 660 square kilometres lease on offshore diamonds.[24]



SOURCE: SYDNEY MORNING HERALD 11 APRIL 1997

Sierra Leone: Rebels killed by Executive Outcomes' mercenaries. (See feature 'Robert "Toxic Bob" Friedland', pages 10-11)

DiamondWorks has substantial interests in the Koidu diamond field.

South Africa

In 1998, Placer Dome formed a 50/50 joint venture with Western Areas of South Africa, mainly to secure access to the huge South Deep gold deposit; it marked the first significant North American mining investment in the country, since the Second World War.[25] Southern Era Resources has an agreement with the world's second largest mining company, Anglo-De Beers, to pool all its rights to the highly prospective Marsfontein diamond deposit.

Tanzania

Kahama Mining Corp (a subsidiary of Sutton Resources, owned by Barrick Gold) is at Bulyanhulu[26], where an underground gold mine is being constructed with a capacity of 300,000 ounces a year[27] (see also box page). Pangea Goldfields Inc (TSE) has 37 mineral concessions including Golden Ridge, in Shinyanga, 50 kilometres north of Buzwagi in a joint venture with Randgold Resources (United Kingdom). Pangea is also at Bulyanhulu South, Kakinda, Sheba and Ignado (in joint venture with Ashanti Goldfields). Tan Range Exploration Corp. is at Itetamia, on the Golden Horseshoe reef,[28] where Newmont (USA) can earn up to a 70% interest in the project.[29]

Zimbabwe

CIDA has invested C$2.3 million (US$1.55 million) to strengthen the capacity of the country's Ministry of Mines.[30] Trillion Resources operates the Indarama mine, which produced 930,000 ounces of gold last year.[31]

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