

Mining

Social and Environmental Impacts

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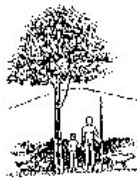
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World Rainforest Movement

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ABOUT THIS BOOK

This book includes a selection of articles published in the World Rainforest Movement's (WRM) monthly electronic bulletin on the subject of mining.

The level of detail and analysis in the articles varies greatly because of the nature of the bulletin, which is intended to serve as a tool for both individuals and organizations acting at local level and for those carrying out activities on an international scale. However, we have included most of the articles as we consider that they may all serve, in one way or another, to raise consciousness regarding an issue that affects so many people in the world.

We have included the numerous sources of information on which the various articles were based in the References at the end of the book. Those who are interested in accessing these sources may do so through our web page, entering the "Bulletin" area and looking for the corresponding year and month of the article involved.

The responsibility for this publication is shared by the editor of the Bulletin, Ricardo Carrere (WRM International Coordinator) together with the WRM editorial team and by the many individuals and institutions that contributed with articles or relevant information for the preparation of the articles. Any errors that may have been committed are the exclusive responsibility of WRM.

INTRODUCTION

The impacts of mining

Mining is an activity rarely associated with deforestation and forest degradation. Nor is it usually associated with wars, dictatorships and violation of human rights, and even less with the worsening of poverty and social inequity. On the contrary, mining is presented as the paradigm of wealth (in particular when dealing with gold and diamond mining), while its marketing conceals its terrible social and environmental consequences.

However, mining is responsible for such impacts and many others, making it one of the most depredatory activities in the world. Mining activities are unsustainable not only because they exploit non-renewable resources, but also because they leave behind them destruction of the environment and society, which is very often irreversible.

For these reasons, it has seemed important to give people a tool to enable them to better understand the various aspects of mining activities in relation to social and environmental issues, as a way of encouraging the adoption of an informed position on this issue, leading to a well-founded opposition to face those who present it as a positive activity for the development of the countries of the South.

As part of the above, we also considered it important to show a diversity of concrete experiences in various countries regarding the exploitation of a wide range of minerals, in order to appreciate the common characteristics of mining activities.

The result is this book, which we have divided into two main sections. In the first part, a detailed description is made of the various aspects of

mining activities, including types of mining, and social actors and impacts involved. The second part gives details of concrete impacts and struggles in many countries of Africa, Latin America, Asia and Australasia, arising as a response to the actions of various types of mining and mining companies.

The information contained in both sections is closely related, given that the overall vision provided in the first part makes it possible to understand better the details of the concrete situations, while these contribute to a more comprehensive understanding of the general vision of the issue.

We hope that this book will serve as a tool to support local struggles against mining, to generate awareness on the issue and to strengthen campaigns against this type of activity ending in the destruction and degradation of wide forest areas and of local livelihoods and cultures.

Ricardo Carrere
WRM International Coordinator

MINING KEYS FOR UNDERSTANDING

Mining is a problem, and as such should be treated

The concept of “sustainability” is increasingly being emptied of any content, particularly by those who carry out basically unsustainable activities. Among them, mention needs to be made of an activity which is – by definition – unsustainable: mining. It can be argued that mining is necessary to provide people with a number of goods, but it can certainly not be argued that it can ever be sustainable, being as it is based on the extraction of non-renewable resources.

In spite of that, mining corporations are trying very hard to convince the public that they are “sustainable.” With that aim in mind, the World Business Council for Sustainable Development – which represents many of the most destructive corporations in the world – contracted the International Institute for Environment and Development – which describes itself as a non-profit organization – to carry out “an independent two-year project of research and consultation seeking to understand how the mining and minerals sector can contribute to the global transition to sustainable development.” The project has of course the necessary catchword “sustainable”: the “Mining, Minerals and Sustainable Development Project.”

That project had, of course, a political aim and was part of the corporate lobbying activity for the inclusion of the absurd concept of “sustainable mining” in the official report of the World Summit on Sustainable Development. In spite of the vocal opposition of anti-mining campaigners during the WSSD process, mining corporations were successful and mining was officially declared – as if by magic – as “sustainable.”

However, in the real world, to say that mining is unsustainable is really an understatement. Its impacts go far beyond what people normally understand as unsustainable. Mining is responsible for the loss of livelihoods of millions of people; it is at the root of numerous civil wars, dictatorships and foreign armed interventions; it is responsible for widespread human right abuses; it is responsible for poisoning people and the environment; it is one of the major direct and underlying causes of deforestation and forest degradation. Those and many other impacts attached to mining are described in detail in several articles included in this book.

It is true that humanity needs a certain amount of minerals to satisfy some of its – basic or otherwise – needs. It is however equally true to say that overconsumption by one part of humanity is destroying the livelihoods and environments of the other humanity at the receiving end of mining.

Because of its impacts, mining is one of those activities that needs to be strictly controlled at all stages, from prospection and exploitation to transportation, processing and consumption. In many cases, strict control will simply mean prohibition. To pretend that mining corporations will control themselves is being more than naive: it's an absurdity. Even government control is insufficient, given the economic and political power that mining corporations have proven to have over them. Society as a whole must be empowered to participate directly in such control.

But above all, peoples living in mineral-rich areas should have the capacity to take fully-informed decisions on whether mining is to be allowed or not in their territories. In case they agree, they should be empowered to decide on how this activity will be carried out, in order to ensure environmental conservation and social justice.

In spite of all its claims regarding “sustainability,” mining is a major problem, and as such should be treated. (WRM Bulletin N° 71, June 2003).

To understand mining: Starting from the beginning

Mining is the series of activities referring to the discovery and extraction of minerals lying under the surface of the earth. Minerals can be metal

(such as gold and copper) or non-metal (such as coal, asbestos and gravel). Metals are mixed with many other elements, but occasionally large quantities of certain metals can be found concentrated in a relatively small area – the deposit – from which one or more metals can be mined with financial benefit. The impacts of mining are related to mining itself, to the elimination of the residues from the mine, to the transportation of the mineral and to its processing, which frequently involves or produces hazardous substances.

Mines vary in size, from small operations producing less than 100 tonnes per day, to large mines moving hundreds of thousands of tonnes. The method of exploitation used to mine specific mineral deposits depends on the type, size and depth of the mineral deposit and the economic and financial aspects of the undertaking.

Until the middle of the twentieth century, underground mining was the method most commonly used to extract large deposits. Following the Second World War, technological progress and the development of larger and more powerful machinery such as bulldozers, levellers, power shovels and trucks, made it possible to move enormous quantities of material, promoting the exploitation of opencast mines. However, underground mines still exist such as the Witwatersrand gold mines in South Africa – the deepest in the world – or the El Teniente mine in Chile – the largest underground mine in the world – or Olympic Dam in Australia. An underground mine is reached by a shaft or a decline spiral, leading to the galleries and production levels that are interconnected by raises and winzes used to transport the mineral and workers. Drills and explosives are used to break up the ore – the mixture of minerals from which one or more metals can be extracted – underground. Generally, this type of mining has less impact on the environment than opencast mines. There is less disturbance of the ground's surface, but all the same, it can have effects on the water by contaminating it with acids and metals and by intercepting aquifers. The workers are exposed to more hazardous situations than those working in opencast mines, due to the risk of collapse, poor air quality and underground explosions. Progressively, companies have abandoned this method due to a problem of profitability, although minerals such as coal, nickel, zinc or lead are still usually mined underground.

Presently, over 60% of the materials mined in the world are extracted by the opencast method, causing devastation of the ecosystem where they are operating (deforestation, contamination and alteration of the water, destruction of habitats). Within this type of mining we may distinguish, among others, open cast mines (usually for hard rock metals), quarries (for industrial building materials such as sand, granite, slate, marble, gravel, clay, etc.), and leach mining (the application of chemical products to filter and separate the metal from the rest of the minerals).

Opencast mines look like a series of terraces arranged in great deep wide pits in the middle of a desolated and stark landscape, lacking any living resources. The operation usually starts with removal of the vegetation and the soil, followed by extensive dynamiting and removal of the rocks and materials above the ore until the deposit is reached, which is again dynamited to obtain smaller pieces. The new technologies, enabling better performance in the speed of extraction and processing of the minerals, increase environmental problems, as the waste materials do not normally revert to restoring the site.

Quarries are surface mines, very similar to open cast mines, as the end result of their exploitation is also a desolated landscape with deep trenches between wide steps. The aggression to the environment that this type of mining generates is more serious due to its proximity to urban zones, as the reduction of transportation costs is sought to make the quarries more profitable. This proximity causes further environmental problems, because the excavation sites, already lacking vegetation, end up by becoming urban waste dumps, in addition to affecting surface and groundwater near them.

In leach mining, chemicals are used (such as sulphuric acid in the case of copper or a solution of cyanide and sodium in the case of gold) to dissolve (leach) the metals in question from the mineral containing them, obtaining a very high rate of recovery. In situ leaching involves boring the intact rock with drills and adding the solvent, whereas the very frequent type of heap leaching is done on heaps of crushed minerals. The chemical solutions used not only release the desired metals but also mobilize other heavy metals such as cadmium, thus contaminating surface and groundwater.

Even though the environmental impacts of mining vary according to the type of mineral and the mine, this is intrinsically an unsustainable activity, as it implies the exploitation of a non-renewable resource by means of destructive or contaminating methods, such as crushing, grinding, washing and classifying minerals, refining and casting. Mining is presently doubly destructive both due to its large scale and to technology, which has increased its productive capacity. (WRM Bulletin N° 71, June 2003).

Mining: More a curse than a blessing

There is now compelling evidence that mining severely limits a nation's ability to sustain economic growth (even within the narrow definitions usually adhered to by nation states). This is a surprising "discovery" for those who think that "riches" in the ground are unfailingly translated into money in the bank. But for those who adopt an anti-colonialist analysis of capital accumulation, the fundamental reason for the discrepancy is not hard to find. Zaire, Bolivia and Sierra Leone are not merely "poor" – they have been ruthlessly impoverished over hundreds of years. Much of the crippling "foreign debt" carried by the world's "poorest" nations is actually interest supposedly owed on capital which has never been invested in people self-development at all. Instead, it has gone to building mines, dams, mills, power and processing plants in order to transform "natural" capital – not only iron, copper, bauxite, diamonds, but water, land and air – into exportable value.

People have extracted minerals from the earth since ancient times. Babylonians, Assyrians, and Byzantines mined for copper and lead thousands of years ago in what is today southern Jordan, for example. Since the Industrial Revolution, however, minerals have been extracted and used in much larger quantities. In recent times, this trend has accelerated greatly: in 1999, some 9.6 billion tonnes of marketable minerals were dug out of the earth, nearly twice as much as in 1970. This figure accounts for minerals that finally reach markets, but does not include the wastes generated in producing these minerals – the unused portion of the ore (the rock or earth that contains minerals), or the earth moved to reach the ore, which is known as over-burden. If these categories were included in the total amount of materials mined each year, the figure would be considerably larger.

Industrial countries consume more than two thirds of the annual production of the nine major minerals. The United States, Canada, Australia, Japan, and Western Europe, with 15 percent of the world's population, together consume most of the metals produced each year: about 61 percent of all aluminum, 60 percent of lead, 59 percent of copper, and 49 percent of steel. On a per capita basis, the different levels of consumption are especially marked: the average US citizen uses 22 kilograms of aluminum a year, the average Indian uses 2 kilograms, and the average African uses just 0.7 kilograms.

However, local communities and tribal peoples from resource-rich countries are the most affected by the detrimental environmental, cultural, social and health effects of mining exploration and exploitation activities. Urged by macroeconomic policies pushed by international credit and commercial institutions, many impoverished countries embrace mining as a "staple" activity to generate much needed foreign exchange. There are cases where at least 40% of exports hinge on a single mineral product, as is the case with the copper in Zambia, diamonds in Botswana, Central African Republic, Gambia, Liberia, and Sierra Leone, aluminium in Guinea and Suriname, iron ore in Mauritania. Though these are rather old data (from 1994), they illustrate a still prevailing trend. Twelve of the world's 25 most mineral-dependent states – most of them concentrated in sub-Saharan Africa – are classified by the World Bank as "highly-indebted poor countries" – the most troubled category of states.

The imposed process of market deregulation and liberalisation has led to privatisation and tax exemptions which have benefited foreign mining corporations. On the other hand, according to a United Nations report, the more that southern countries rely on exporting minerals, the worse their standard of living is likely to be. Higher levels of mineral dependence are strongly correlated with higher poverty and child malnutrition and mortality rates. They are also associated with income inequality, low spending levels on health care, low enrolment rates in primary and secondary schools, and low rates of adult literacy, as well as higher vulnerability to economic shocks. Recent academic studies reveal that overall living standards in mineral dependent states tend to suffer from unusually high rates of corruption, authoritarian government, government ineffectiveness, military spending, and civil war.

With the exception of mercury, asbestos and lead – specifically targeted for their environmental toxicity – the output of major metals has been increasing in an exponential fashion which has virtually nothing to do with satisfying basic human needs but much with the corporations' sheer and unquenchable thirst for profit. There has been a lot of movement within the mining industry in the last years. Mining companies have streamlined their operations as well as gone into mergers and acquisitions to maintain, consolidate, strengthen and expand mining transnationals' global reach of operation. A growing concentration of investment has been in the search for gold and diamonds, which are attractive for their profitability rather than their usefulness.

Although the international mining scenario includes a relatively big number of companies, only a few – getting increasing larger through mergers – seem to dominate the scenario. Most of them originate from a handful of countries, among which the most important are Canada, the United States, the United Kingdom and Australia. Well known companies from those countries include Rio Tinto, Barrick Gold Corporation, Freeport MacMoran, BHP-Billiton, Newmont, Placer Dome and many other. However, other internationally smaller actors may be extremely important at the local level and examples are also provided. Regardless of their international importance they all have two things in common: they are extremely profitable and extremely damaging.

On the other side, mining can be very lucrative for the companies, but not for the local communities in areas where mineral resources are extensive. 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. Communities who have been previously dependent on the renewable natural resources, suffer immediate losses as a result of large-scale mining activities. They see 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. 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.

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 a 1999 study from *Arborvitae* (IUCN, WWF), southern 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.”

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 an environmentally friendly approach focused on fulfilling the economic, social and cultural needs of people and future generations. (WRM Bulletin N° 71, June 2003).

Environmental and social impacts of mining

Mining is a short-term activity with long-term effects. There can be no doubt that when it takes place in forest zones, it is a factor of degradation. It is calculated that, together with oil prospecting, mining is threatening 38% of the last stretches of the world’s primary forests.

Mining activities are carried out in various stages, each of them involving specific environmental impacts. Broadly speaking, these stages are: deposit prospecting and exploration, mine development and preparation, mine exploitation, and treatment of the minerals obtained at the respective installations with the aim of obtaining marketable products.

During the prospecting phase, among other activities having an impact on the environment are the preparation of routes of access, topographic and geological mapping, establishment of camps and auxiliary facilities, geophysical works, hydro-geological research, opening up of reconnaissance trenches and pits, taking of samples.

During the exploitation phase, the impacts depend on the method used. In forest zones, the mere deforestation of the land with the consequent elimination of vegetation – greater in the case of opencast mines – has short, medium and long-term impacts. Deforestation not only affects

the habitat of hundreds of endemic species (many doomed to extinction), but also the maintenance of a constant flow of water from the forests towards other ecosystems and urban centres. Deforestation of primary forests causes a rapid and fluid runoff of rainwater, increasing flooding in rainy periods because the soil cannot contain the water as it does when covered by forest.

In addition to the area disturbed by the excavation, the damage caused by mines on the surface due to the consequent erosion and silting (sedimentation of the watercourse beds) is made more serious due to heaps of rock residues lacking economic value (known as tailings), that usually form great mounds, sometimes larger than the area given over to excavation.

The enormous consumption of water required by mining activities generally reduces the water table around the site drying up wells and springs. Water usually ends up being contaminated by the acid drainage, that is, exposure to air and water of the acids formed in certain types of ore – particularly sulphuric acids – as a result of mining activities, which in turn react with other exposed minerals. A self-perpetuated dumping of acid toxic material is generated that can go on for hundreds or even thousands of years. Furthermore, the small particulates of heavy metals that with time separate from the waste, are disseminated by the wind, landing on the soil and in the beds of watercourses and slowly integrating the tissues of living organisms, such as fish.

Hazardous chemicals used in the various stages of metal processing, such as cyanide, concentrated acids and alkaline compounds, although supposedly controlled, usually end up, one way or another, in the drainage system. The alteration and contamination of the water cycle has very serious side effects that affect surrounding ecosystems – especially more so in forests – and people.

Air pollution can be caused by the dust generated by mining activities, a serious cause of illnesses, generally in the form of respiratory troubles in people and asphyxia of plants and trees. Furthermore, usually, a release of gases and toxic vapour takes place: sulphur dioxide – responsible for acid rain – is produced because of metal

treatment, and carbon dioxide and methane – two of the main greenhouse effect gases causing climate change – are also released, due to the burning of fossil fuels and the creation of artificial lakes for the hydroelectric dams, built to provide energy for the casting ovens and refineries.

Additionally, mining activities consume enormous quantities of wood for their construction – in the case of underground mines – and as a source of energy for mines with charcoal-fuelled casting ovens. Also, when carried out in remote zones, mining activities imply major works such as road building (opening access to the forests), ports, mining villages, the deviation of rivers, construction of dams and energy generating plants.

The deafening sound of the machinery used in mining and the blasting cannot be considered as minor impacts either because they create conditions that may become unbearable for the local populations and the forest wildlife.

It is argued that mining is vital for industrialization, because it provides raw material and sources of energy. However, the present disproportionate concentration of investment on gold and diamond-seeking, marginal for industrial production, refute the sector's social justification for its activities. In 2001, 82% of the gold refined found its way to the jewellery market and it is worth remembering that to make a gold ring, the average amount of rock waste generated in a mine is over 3 tonnes. In the United States, the Pegasus Gold company caused the Spirit Mountain in Montana to disappear, replacing what had been a sacred tribal place by an opencast gold mine. Over the next 1,000 years, the site will continue to distil acid into the region's watershed.

Throughout history, the various gold rushes have brought death and devastation to the local populations. From the Sioux of the Black Hills, to the Aborigines around Bendigo in Australia, the history of gold is tainted with blood; and today Amazonian tribes, like the Yanomami and Macuxi, the Galamsey of West Africa, and the Igorot of the Philippines, are similarly endangered.

Mining comes along with its promise of wealth and jobs, but millions are those throughout the whole world who can testify to the high social

costs that it brings with it: appropriation of the land belonging to the local communities, impacts on health, alteration of social relationships, destruction of forms of community subsistence and life, social disintegration, radical and abrupt changes in regional cultures, displacement of other present and/or future local economic activities. All this is added to the hazardous and unhealthy working conditions of this type of activity.

It may be held that many of the affected communities have given their consent. However, it is hard to speak of previous, genuine informed consent, as they do not have the opportunity to fully understand what is waiting for them when they are asked to place their signature on the dotted line at the foot of a contract. For this reason, mechanisms to enable indigenous and local communities to effectively participate in decision-making processes are called for, together with legislation enabling them to reject this type of undertaking in their territories.

If there are people who want to wear gold anyway, or use it to fill cavities, or for micro-circuitry in computers and cell phones, that is all well and good but as someone proposed, take it from recycled sources. Of the 125,000 tonnes of gold extracted from the ground, more than 35,000 tonnes lie in the vaults of central reserve banks. The US Federal Reserve holds 8,145 tonnes of gold, approximately 6% of all the gold ever mined. What would be better than recycling it from the bank vaults! (WRM Bulletin N° 71, June 2003).

Mining with mercenary armies

A growing number of new corporate security operations around the world link former intelligence officers, standing armies, and death squad veterans. They go into battle for new bosses: the mineral industries.

The advent of new technologies such as computer-aided satellite mapping and the use of cyanide to extract gold have turned formerly marginal operations into potential moneymakers (for transnationals). The collapse of the Soviet Union and the signing of the global free trade agreements have opened up countries like Angola that were previously off-bounds to Western multinationals. And lastly, the availability of capital and the mitigation of risk have been ensured by the push from the

international financial institutions, such as bilateral and multilateral agencies including the World Bank and the US Export-Import Bank. They are eager to provide cash and political risk insurance for private resource extraction projects pretty much anywhere in the world.

Some years ago, Tim Spicer, former member of the British Special Air Services (SAS), had met with two senior government officials about buying a copper mine owned by Rio Tinto, the Anglo-Australian mining titan, on the island of Bougainville, Papua New Guinea. Less than a month later, Spicer was led into a Papua New Guinea court for being contracted with the disgraced government to provide a mercenary force to take over the copper mine. His mission had been to defeat a small group of freedom fighters who had shut down the copper mine for almost a decade. When news of Spicer's contract became public, ordinary citizens and local army officers took the law into their own hands. The rioting closed shops, banks and schools and sealed off major roads until truckloads of police armed with automatic rifles eventually dispersed the enraged populace with teargas and rubber bullets.

Two unnamed ex-SAS officers in Colombia fared better. Their black boxes full of guns and ammunition had been waved through the checkpoint run by a colleague, Bill Nixon, a former British intelligence officer, whose new job was providing security at the private airport owned by British Petroleum (BP). All three mercenaries had been on contract to BP to help train the Colombian police – notorious for their human rights abuses – to protect the Dele-B oil rig. The oil company interpreted security concerns broadly. According to a report commissioned by the Colombian government, BP collaborated with local soldiers involved in kidnappings, torture, and murder. The unpublished document alleges that the oil company compiled intelligence – including photos and video tapes of local people protesting oil activities – and passed the information on to the Colombian military which then arrested or kidnapped demonstrators as “subversives.”

Most of the men running the mercenary-for-hire operations tend to operate behind the lines, preferring to employ other men – local or imported hired guns – to carry out on-the-ground operations. Both the Colombian and Papua New Guinean contracts were handled out of London offices run by yet more former SAS officers, such as Anthony

Buckingham, who is one of the shadier operators in the security business, running a mini-conglomerate of mercenary, oil, and mining companies out of discreet offices in London.

The most infamous mercenary army contracted by the new colonialists is Executive Outcomes (EO) which provided Buckingham and Spicer with soldiers-for-hire in Papua New Guinea. But EO's most famous campaign was in Sierra Leone in May 1996. The EO mercenaries arrived in Sierra Leone better equipped than most armies in Africa, with Russian helicopter gunships, a radio intercept system, two Boeing 727s to transport troops and supplies, an Andover casualty-evacuation aircraft, and fuel-air explosives. Used with devastating results by the US in the Gulf war, fuel-air explosives – one step below nuclear weapons in power – suck out oxygen upon detonation, killing all life within a square-mile radius. The operation left EO with a lucrative security contract financed by the profits earned by the diamond mines.

But they are by no means the only major players. There are at least a few dozen others in the mineral industries, which provide “security” services to companies and governments in Colombia, Guyana, and Venezuela in South America; to Guinea, Liberia, Nigeria, and Sierra Leone in West Africa; to Angola; and Namibia in southern Africa; to Congo, DR (former Zaire) in central Africa; to Sudan and Uganda in East Africa; to Papua New Guinea and Indonesia in the Pacific; and to Kazakhstan in Central Asia. Many of these recruits are veterans of South Africa's 32 Battalion and Civil Cooperation Bureau which were the most notorious units of the old apartheid forces until elections brought a multi-racial government to power a few years ago.

Meanwhile, UK-based mining company Rio Tinto in Indonesia has made efforts to convince the world of its commitment to human rights. For the past two years, it has contributed funds to the Yap Thiam Hien Human Rights Award. This year, the award was won by human rights defender and poet Wiji Thukul, who has been missing since 1996. In December, the family refused the award on the grounds that Rio Tinto was involved in several human rights violations at its mining operations in Indonesia and was responsible for the 1992 arrest of demonstrators who were demanding proper compensation for the use of their land.

In a statement supporting the family's stance, Indonesian NGOs JATAM, WALHI and TATR list some of the human rights violations involving Rio Tinto, including those at the PT KEM mine in East Kalimantan, investigated by Indonesia's National Human Rights Commission in 1999 and 2000. These covered cases of sexual abuse and rape against sixteen women between the ages of nine and eighteen; the arrest of 15 demonstrators in 1992 and the subsequent death of one of them; forced eviction by the Indonesian military of traditional miners and burning of hundreds of houses between 1982 and 1991. The statement also lists Rio Tinto's involvement in cases through its shareholdings in the Freeport Indonesia copper and gold mine in West Papua (Rio Tinto has a 15% share); the Kaltim Prima Coal mine (co-owned with BP); Papua New Guinea's Lihir gold mine and the Panguna mine on Bougainville. The statement calls on the executors of the Yap Thiam Hien Award Program no longer to accept funding from human rights violators. "The human rights violators must not be given the opportunity to wash themselves clean of responsibility for their actions..." (WRM Bulletin N° 71, June 2003).

The impacts of mining on women

While mining has negative impacts on all those who live in the mining communities in general and those who are affected by the mining operations, there are distinct impacts and added burdens on women.

The differentiated impacts can be begun to be understood in concrete situations, such as that faced by a Dayak woman affected by a mine owned by the company PT-IMK in Indonesia.

"Mrs. Satar had a field as large as 10 to 15 hectares on the community's traditional land. Upon this land, she could harvest enough produce for one year, in fact sometimes more. With the introduction of the mining into her community, she lost all but one hectare of her land to the mining company. Consequently, she had to buy approximately 3 sacks of rice per month at a cost of Rp39,000 per sack (price at January 1998). In addition, the mining company's operations polluted the river, which could no longer be used to meet household needs, and no longer produced fish. Previously, Satar had cooked fresh fish each day for her family. Now, as a result of the pollution, she has to buy salted fish. If

there is enough money, she purchases 2 kilos of salted fish a month at Rp15,000 per kilo. To obtain bathing and drinking water, Satar must walk a long way to a water source that is not affected by the company's tailings. Satar's livelihood is further threatened by the loss of her two water buffalos, found dead at the edge of the contaminated river."

It is also necessary to understand that companies usually enter into negotiations only with men, excluding women also from the royalties or compensation payments. They even have little or no control over and access to any of the benefits of mining developments, especially money and employment. Thus, women are deprived of their traditional means of occupation and become more dependent on men, who are more likely to be able to access and control these benefits.

Large-scale mining entails the replacement of subsistence economies which have nurtured generations of communities and Indigenous Peoples with a cash-based economy. The new market-based economy implies a significant erosion or destruction of traditional values and customs which have been crucial in sustaining community, tribal, clan and family solidarity and unity. In such process, women become marginalised since their traditional roles as food gatherers, water providers, care-givers and nurturers are very much affected. Economic visibility depends on working in the public sphere and unpaid work in the home or community is categorised as "unproductive, unoccupied and economically inactive."

Additionally, the environmental destruction caused by large-scale mining has also decreased the productivity of the fields and poisoned wildfoods, marine life, animals. Many women are pushed to enter into the informal economy to find additional sources of income.

Whilst large-scale mining has limited scope for women's employment, the small-scale sector absorbs women as contract or bonded labour under highly exploitative conditions. In India, for example, women's wages are always less than that of men, safety standards are non-existent, paid holidays are not allowed even during pregnancy or childbirth, work equipment is not provided, and there are no toilets or facilities available. Unemployed women living in mining communities eke out their livelihood by scavenging on the tailings and waste dumps,

often illegally, and suffer from the constant harassment of company guards, local Mafia and the police. They are exposed to the physical and sexual exploitation of the mine-owners, contractors and miners and are at the mercy of local traders when selling their ores. In addition, women work with toxic, hazardous substances and suffer from several occupational illnesses including respiratory and reproductive problems, silicosis, tuberculosis, leukemia, and arthritis.

Alcohol abuse, drug addiction, prostitution, gambling, incest, and infidelity are increasing in many mining communities. These have worsened cases of family violence against women, active and often brutal discrimination in the workplace that is often sanctioned or ignored by judicial and political institutions. Even men-led workers' organisations usually do not raise cases of human rights violations against women. The orientation of discussions between these organisations and mining companies is directed towards economic issues, such as wage increases, subsidies and so on.

In sum mining – be it small or large-scale – is resulting in a large number of specific impacts on women, who are losing out in almost all aspects related to the development of this activity. The wealth generated by mining further pushes women into poverty, dispossession and social exclusion. (WRM Bulletin N° 71, June 2003).

Mining companies muscle in on protected areas

Mining companies were shocked by a 'Recommendation' passed by the World Conservation Congress in Amman in 2002, which called for an end to oil, mining and gas extraction from all protected areas in IUCN categories I, II, III and IV ('strict nature reserves', 'wilderness areas', 'national parks', 'natural monuments' and 'habitat management areas'). Many NGOs were equally surprised by the mining industries' reaction: what did the companies think these areas were meant to be protected from if not from unsustainable activities like mining? Indeed some went further, why does the Amman decision implicitly allow mining in protected areas in IUCN categories V and VI – 'managed landscapes and seascapes' and 'managed resource protected areas'?

Controversy over the relationship between extractive industries and protected areas has rumbled on since that date. IUCN Council members

and general members raised an outcry later in June 2002 when the IUCN Secretariat announced in the context of the World Summit on Sustainable Development that it was developing a new 'partnership' with the extractive industries. The language had to be toned down as a result of the outrage. The IUCN now speaks of being engaged in a 'dialogue' with the industries, but, whatever the term used, the reality is much the same.

The 'partnership' or 'dialogue' forms part of a wider strategy by the extractive industries' to rehabilitate their dirty image, tarnished by a trail of oil leaks, tanker wrecks, tailings dams bursts, cyanide and mercury spills, ruined landscapes, despoiled river systems, toxic waste dumps, polluted ecosystems, violated human rights and shattered livelihoods. The new talk of the industries' PR promoters and spin doctors is of 'sustainable mining', 'landscape restoration' and 'corporate responsibility' – the Global Mining Initiative is one part of this, the tie up with the IUCN another.

The fact is that the extractive industries need to be able to get access to minerals, oil and gas reserves wherever they are found in lucrative quantities: putting IUCN category I-IV areas off limits hurts them. Now they are wondering: just who decides how to apply these categories and what legal status do they have? To help answer such questions a number of companies including British Petroleum plc, Shell plc and the International Council for Mining and Metals are co-sponsoring a study co-financed by IUCN, WWF and Conservation International which will report to the World Parks Congress in September 2003. As it happens, the study itself, 'Speaking a Common Language', looks like being a useful one. Yet, the whole experience has come as a sharp jolt to those who put faith in the protected area system. If the system is not now to be undermined by the extractive industries, it will need vigilant policing by civil society and measures to ensure that the IUCN does not step out of line again. (WRM Bulletin N° 71, June 2003).

World Bank should stop mining indigenous lands

A report from the Forest Peoples Programme and the TebTebba Foundation calls on the World Bank to drop its support for oil, gas and mining. The report 'Extracting Promises: Indigenous Peoples, Extractive

Industries and the World Bank' was compiled as a contribution to the World Bank's Extractive Industries Review (EIR).

The EIR process has been criticised by many indigenous peoples and non-governmental organisations for being unduly controlled by the World Bank. It remains to be seen whether contributions, such as this one, are taken seriously by the review and, if so, whether the recommendations will be heeded by the World Bank itself. The study builds on an extensive literature review and legal analysis, seven specially commissioned case studies carried out by indigenous peoples of their experiences of the World Bank and extractive industries and a two-day workshop at which these various contributions were presented and discussed.

The report notes that despite major advances in human rights law recognising the rights of indigenous peoples, World Bank policies, however, make little mention of human rights and the Bank continues to insist that it is prohibited from addressing human rights by its Articles of Agreement and it argues that it cannot require its borrowers or clients to observe even those human rights agreements to which they are party. The Bank's 'safeguard' policies on indigenous peoples and involuntary resettlement seek only to mitigate the impacts of destructive development schemes. The study shows how even these weak standards are routinely ignored. A recent review by the World Bank itself reveals that only more than one third of World Bank projects that impact indigenous peoples have not applied the safeguard policy in any way at all. Even in the projects that did apply the policy, only 14% had the required 'Indigenous Peoples Development Plan' and then only on paper.

The study shows how, in promoting national development through trade liberalisation, structural adjustment and the promotion of foreign direct investment, the World Bank has routinely advised countries to rewrite national mining codes to facilitate large-scale mining by foreign companies. These revised mining codes have been pushed through without the participation of indigenous peoples and without taking into account the interests and rights of indigenous peoples. Case studies from Colombia and the Philippines show how the revised mining codes have intensified pressure on indigenous lands and weakened or

overridden the legal protections previously enjoyed by indigenous peoples. In Colombia, mineral, oil and gas reserves are exploited by unaccountable companies, which enjoy legal impunity while regularly violating national laws and using severely repressive measures to overcome local resistance. In Ecuador, the World Bank has also promoted national minerals surveys, again without taking the rights of indigenous peoples into account or assessing the likely consequences of intensified minerals extraction.

The synthesis paper and case studies also document the way the World Bank Group, through its various arms – the International Bank for Reconstruction and Development, the International Development Association, the International Finance Corporation and the Multilateral Investment Guarantee Agency – has directly supported mines, oil and gas ventures without adequate assessment of the social and environmental consequences and without taking heed of the lack of good governance and institutional or regulatory capacity in project areas or countries. In the case of the Chad-Cameroon Pipeline, the World Bank's Board voted to go ahead with the project even when the forest-dwelling Bagyeli and supporting NGOs had clearly demonstrated the risks and even though Board members admitted that the Bank's safeguard policy on indigenous peoples has not been properly applied. The IFC has even supported mining in war-torn countries like the Democratic Republic of the Congo by companies with bad track records: projects that have been condemned by the United Nations.

The impacts of Bank-facilitated mining ventures have been severe, not just in terms of the direct social and environmental impacts of the mines or wells themselves but also in terms of spills of poisonous chemicals such as cyanide and mercury, ruptured oil pipes, breached tailings dams and long term pollution through acid mine drainage. The case study from Papua New Guinea reveals World Bank support for the use of the highly controversial technique of submarine tailings disposal – 'out of sight is out of mind' – without consideration for the long term implications for marine ecosystems and the livelihoods that depend on them. World Bank employees, assessors and consultants, working with mining companies in the name of the IFC and the World Bank's Business Partners for Development have been party to, or have endorsed, processes that have engineered consent or have co-opted

communities into un-transparent and manipulated decision-making. In some cases, as in Russia, the World Bank's involvement in specific projects may have temporarily mitigated some of the worst impacts of oil extraction but overall the World Bank's involvement in the sector has intensified pressure on indigenous lands which remain unsecured.

The study reveals that underlying these problems lies a flawed process of decision-making within the World Bank in which the pressure to lend overwhelms other objectives and objections. By prioritising its direct clients and the interests of large-scale private sector enterprises, the Bank is overriding its commitment to sustainable development. Corruption is knowingly tolerated and governance failures routinely overlooked. Staff who question loans being made under these circumstances are penalised. Currently, in the name of 'efficiency', lower 'transaction costs' and 'country ownership', the Bank is systematically weakening its safeguard policies, in order to 'panel proof' them against complaints by civil society to the Inspection Panel.

Given the weakness of its safeguards, its institutionalised opposition to invoking binding human rights standards and the way it routinely flouts its own procedures, the study concludes that the World Bank should not be involved in the Extractive Industries sector.

Moreover, the study recommends that the World Bank should radically revise its social policies and its safeguard policy on indigenous peoples. It should adopt a rights-based approach to development, recognise indigenous peoples' rights to the ownership and control of their lands, territories and natural resources, proscribe the forced relocation of indigenous peoples, and uphold the principle that development projects should only go ahead in areas owned or used by indigenous peoples subject to their free, prior and informed consent. Such changes in approach should be applied to the whole World Bank Group, should be complemented with new, legally binding systems of accountability and should be accompanied by an acceptance that the promotion of development through the private sector requires, first of all, the promotion of good governance, real accountability, effective regulatory mechanisms and strong institutional capacity. (WRM Bulletin N° 71, June 2003).

Extractive Industries Review calls for limits of World Bank funding of mining activities

As the global economy expands, pressure on indigenous lands to yield up minerals, oil and gas is intensifying, posing a major threat on them, their lands, territories and the resources that they depend on. The World Bank has been an instrument of such process, supporting mining projects that have been even condemned by the United Nations.

World Bank Group interventions in the extractive industries sector have negatively impacted indigenous peoples in manifold ways. It has routinely advised countries to rewrite national mining codes to facilitate large-scale mining by foreign companies. It has weakened the legal protections previously enjoyed by indigenous peoples. It has directly supported mines, oil and gas ventures without adequate assessment of the social and environmental consequences and without taking heed of the lack of good governance and institutional or regulatory capacity in project areas or countries. Its policies make little mention of human rights.

In the case of the indigenous forest-dwelling Bagyeli, they have suffered the impact of the World Bank sponsored Chad-Cameroon Oil Pipeline Project. The project has been carried out even when the Bagyeli and supporting NGOs had clearly demonstrated the risks and even though World Bank's Board members admitted that the Bank's safeguard policy on indigenous peoples has not been properly applied. "They promised us jobs. They took everything from us. They took our land. They took our forest. They took our water," says Sama Bailie of South West Cameroon.

Now, an official evaluation of the impacts of World Bank financing for extractive industries – the Extractive Industries Review (EIR) – calls on the Bank to immediately stop financing coal projects and to phase out support for oil projects by 2008. It urges the Bank to require prior informed consent of communities that would be affected by oil and mining projects and human rights protections. And it says the Bank should reject financing for environmentally destructive practices such as dumping effluents into rivers and oceans. The final report, recently issued, was strongly critical of the record of the extractive industries in development, human rights, and environmental terms.

The EIR recommends that adoption of and demonstrated compliance with human rights principles should be a prerequisite for companies seeking World Bank Group support for extractive industries, a requirement that would certainly pose a problem for many companies – like Shell, Anglo-American, ChevronTexaco, and ExxonMobil – which face judicial investigations for their role in human rights abuses.

As Keith Slack of Oxfam America has put it: “The EIR has put forward some strong recommendations to try to address the problems, but the responsibility now shifts to the Bank. We’ll all be looking to James Wolfensohn and his staff now to implement these changes.”

Meanwhile, communities and peoples at large continue with their resistance against the global forces that encroach on their lives to deprive them of their lands and livelihoods, their health and food, their past and future. (WRM Bulletin N° 77, December 2003).

LOCAL STRUGGLES AND IMPACTS

AFRICA

The more you know, the less gold glows

“No Dirty Gold” is the consumer campaign launched on February 11, 2004, by Earthworks/Mineral Policy Center and Oxfam, intended to shake up the gold industry and change the way gold is mined, bought and sold. Right before and a few days after Valentine’s Day – a major occasion for gold jewelry sales in the U.S. – activists distributed Valentine’s cards with the message, “Don’t tarnish your love with dirty gold” in front of major jewelry and watch stores, including Cartier’s and Piaget’s on 5th Avenue in midtown New York City. Consumers are also asked to sign a pledge at the campaign website.

The production of a single 18 Karat gold ring weighing less than an ounce generates at least 20 tonnes of mine waste. Metals mining employs less than one-tenth of one percent of the global workforce but consumes 7 to 10 percent of the world’s energy. Eighty percent of gold

is used to make jewelry. Most consumers don't realize that in Southern countries gold mining is associated with human rights abuses, and even imprisonment and death, along with environmental devastation.

As part of the campaign, Earthworks and Oxfam released the report "Dirty Metals: Mining, Communities and the Environment," which details the massive pollution, huge open pits, devastating community health effects, worker dangers and, in many cases, human rights abuses that have become hallmarks of gold and metals mining in several countries. The report also shows that mining renders no wealth for the people and rather becomes the so-called "resource curse" for Southern countries such as Guinea, Niger, Zambia, Togo. Though their percentage of total export value from non fuel minerals is high (71, 67, 66, and 30 respectively), they have a high percentage of population below national poverty line (40, 63, 86, and 32 respectively). Mining becomes twofold a curse for local communities, which frequently suffer not only direct displacement but also a displacement of their traditional livelihoods.

Furthermore, mining targets places which are considered world heritage sites. Such is the case of gold mining in the Okapi Wildlife Reserve, Democratic Republic of Congo, the Tai National Park, Côte d'Ivoire, Bwindi Impenetrable National Park, Uganda, and Kahuzi-Biega National Park, Democratic Republic of the Congo, and iron ore mining in Mt. Nimba Strict Nature Reserve, Guinea and Côte d'Ivoire.

In the west African nation of Ghana, a country with extensive gold mines, the Ghanaian Commission on Human Rights and Administrative Justice issued a report in 2000 that found "overwhelming evidence of human rights violations occasioned by the mining activities, which were not sporadic but a well established pattern common to almost all mining communities." Between 1990 and 1998, more than 30,000 people in Tarkwa were displaced by gold mining operations. "Our people have suffered beatings, imprisonment, and murder for standing up for our community rights against multinational mining companies," said Daniel Owusu-Koranteng, a mining activist from the Tarkwa district. "We want buyers of gold to support our rights and demand that mining companies adhere to higher ethical standards."

An investigation by the Ghanaian community group WACAM (Wassa Association of Communities Affected by Mining) found evidence that

between 1994 and 1997, AGC (Ashanti Goldfields Company) security personnel, acting in conjunction with the police and the military, had killed three artisanal miners. In one incident in January 1997, 16 artisanal miners were severely beaten by AGC security personnel. WACAM also collected testimony from six other artisanal miners who say they were beaten and attacked by AGC security's guard dogs.

Even as a job source, mining is unsustainable. The destruction of the traditional employment base is followed by the loss of the mine itself. When ore deposits are exhausted, the jobs disappear. Most large-scale projects have a lifespan of between 10 and 40 years, after which the mining companies close up shop and move on to new projects. Any schools, clinics, and other services established by the companies usually lose their funding. When this happens, the miners and communities are generally left to fend for themselves. Since mining is specialized employment, miners typically have few other marketable job skills. There are few "just transition" programs, in which former mineworkers are retrained for other work. For these reasons, laid-off miners are likely to stay unemployed for long periods.

The social effect of these layoffs is often profound, because the miners generally have a large number of dependents (although the majority of them may not be in the mining communities themselves). According to an estimate by the South African Chamber of Mines, one in every eight people in southern Africa is economically dependent on mining. In South Africa itself, the world's largest gold producer, the gold mining industry laid off some 400,000 workers between 1985 and 2000 – nearly half its workforce – thus depriving them and their numerous dependents of their sources of income.

The time has come to reform our "metals economy," reforming the way metals are produced, finding ways to use metals far more efficiently, and continuing using metals that are already in circulation. If some metals mining may be necessary, most important extraction operations should never take place in nature reserves and native lands.

"What we're asking for is reasonable, fair and possible," said Keith Slack, Senior Policy Advisor with Oxfam America. "The symbol of your enduring love should not have to come at the expense of clean drinking

water or respect for human rights.” “Gold doesn’t seem so shiny when you consider the colossal damage gold mining inflicts,” said Payal Sampat, International Campaign Director with Earthworks. “We’re asking consumers to consider the real cost of gold, and we’re enlisting their help to put an end to mining practices that endanger people and ecosystems.” (WRM Bulletin N° 80, March 2004).

Central African Republic: IMF, logging and mining

The dense, moist forests of the Central African Republic cover about four million hectares. Although the country has maintained loan arrangements with the IMF dating back to the 1980’s, it came under increased pressure when the Central African Republic signed a three-year, US\$66 million loan agreement with the IMF in 1998. The IMF has encouraged the Central African Republic to increase exploitation of forest and mineral resources. “Mineral resources in the Central African Republic have so far been insufficiently exploited...” reads a policy framework paper jointly drafted by the IMF, World Bank, and Central African Republic in 1998.

The Central African Republic has followed the IMF’s advice, and between 1993 and 1999, total log production increased three-fold. About half of the humid forest area is now held by a handful of transnational logging companies. Despite government efforts to ensure that wood exports have been processed to capture the jobs that come from value-added products, raw log exports have increasingly dominated the sector, making up 71 percent of wood exports in 1999.

Logging in the Central African Republic tends to be of a selective nature. While the lack of clearcut logging operations may appear to mean that forestry’s impact is lessened, the effect has been that logging companies penetrate deeper into the forest in search of the most valuable species, most notably sapelli, ayous, and sipo trees.

Once logging activities have been concluded, additional damage is done as settlers and poachers (of “bushmeat” and ivory) gain access to new areas via the logging roads. This has resulted in tragic consequences for the Central African Republic’s populations of gorillas, elephants, and rhinos:

- Survival of two species of endangered gorilla – the western and lowland gorillas – is threatened by continued human encroachment and illegal poaching.

- Expansion of commercial logging, human inhabitation, and trade in ivory have led to a decrease in habitat available for forest elephants, which migrate between the Central African Republic, Cameroon, and the Congo. It has been estimated that in the Central African Republic and Congo, as many as 200 elephants are killed each year.

- The western black rhino, one of the world's most imperiled species with perhaps fewer than 10 animals surviving, has already been eliminated from the Central African Republic altogether, due to excessive poaching.

New mining codes were also adopted by the Central African Republic in 2000, as directed by the IMF. In 2001, the nation adopted a new finance law that provided for the reduction of duties on the export of minerals. It is anticipated that these measures will cause additional harm to the county's natural areas. (By: Jason Tockman, WRM Bulletin N° 54, January 2002).

Congo, DR: Cell phones, forest destruction and death

Could anyone imagine that cell phones are tainted with the blood of 3.2 million deaths since 1998? Also, that the same thing happens with some children's video games? And that mega-technologies contribute to forest depredation and spoliation of the rich natural resources of paradoxically impoverished peoples?

In the case of these new high techs, it is Coltan that is at stake – the minerals columbium and tantalite, or Coltan for short. Tantalite is a rare, hard and dense metal, very resistant to corrosion and high temperatures and is an excellent electricity and heat conductor. It is used in the microchips of cell phone batteries to prolong duration of the charge, making this business flourish. Provisions for 2004 foresee sales of 1,000 million units. To these properties are added that its extraction does not entail heavy costs – it is obtained by digging in the mud – and that it is easily sold, enabling the companies involved in the business to obtain juicy dividends.

Even though Coltan is extracted in Brazil, Thailand and much of it from Australia – the prime producer of Coltan on a world level – it is in Africa where 80% of the world reserves are to be found. Within this continent, the Democratic Republic of Congo concentrates over 80% of the deposits, where 10,000 miners toil daily in the province of Kivu (eastern Congo), a territory that has been occupied since 1998 by the armies of Rwanda and Uganda. A series of companies has been set up in the zone, associated to large transnational capital, local governments and military forces (both state and “guerrilla”) in a dispute over the control of the region for the extraction of Coltan and other minerals. The United Nations has not hesitated to state that this strategic mineral is funding a war that the former United States Secretary of State, Madeleine Albright called “the first African world war” (and we understand by world wars, those in which the great powers share out the world), and is one of its causes.

In August 1998, the Congolese Union for Democracy (Rassemblement Congolais pour la Démocratie-RCD), launched a rebellion in the city of Goma, supported by the Rwanda Patriotic Army (RPA). Since then, in a struggle in which, behind the myth of ethnic rivalries, are hidden the old colonial powers that continue to ransack the wealth of post-Colonial Africa, the war has been rife between two, loosely defined parties. On the one hand the RDC and the Governments of Rwanda and Uganda, supported by the United States, relying on the military bases such as that built in Rwanda by the United States company Brown & Root, a branch of Halliburton, where Rwandese forces are trained and logistic support is provided to their troops in the DRC, together with United States combat helicopters and spy satellites. The other party is made up of the Democratic Republic of Congo (led by one of Kabila’s sons, after his father was assassinated by the Rwandese), Angola, Namibia and Zimbabwe.

However, behind these states are the companies sharing out the zone. Various joint companies have been set up for this purpose, the most important one being SOMIGL (the Great Lakes Mining Company), a joint company set up in November 2000, involving Africom, Premeco, Cogecom and Cogear, (the latter two are Belgium companies – it should be remembered that DRC, formerly the Belgium Congo, was a Belgium colony), Masingiro GmbH (a German company) and various other

companies that ceased their activities in January 2002 for various reasons (a drop in Coltan prices, difficult working conditions, suspension of Coltan imports from DRC) and are waiting for better conditions: Sogem (a Belgian company), Cabot and Kemet (U.S.) the joint United States-German company Eagles Wings Resources (now with headquarters in Rwanda), among others.

The transport companies belong to close family members of the presidents of Rwanda and Uganda. In these virtually military zones, private air companies bring in arms and take out minerals. Most of the Coltan extracted is later refined by a small number of companies in Germany, the United States, Kazakhstan and the Far East. The branch of Bayer, Starck produces 50% of powdered tantalite on a world level. Dozens of companies are linked to the traffic and elaboration of this product, with participation of the major monopolizing companies in Belgium, Germany, the Netherlands, Switzerland, and the United States. As if this were not enough, the Trade, Development and Industry Bank, created in 1996 with headquarters in the capital city of Rwanda, Kigali, acts as correspondent for the CITIBANK in the zone, and handles large amounts of money from Coltan, gold and diamond operations. Thirty-four companies import Coltan from the Congo, among these, 27 are of western origin, mainly Belgium, Dutch and German.

The Belgium air company, Sabena is one of the means of transporting the mineral from Kigali (capital city of Rwanda) to Brussels, and associated to American Airlines, announced last 15 June the suspension of the service, under strong pressure from the world campaign "No blood on my cell phone!" (or: "Pas de sang sur mon GSM" in French), exhorting people not to buy cell phones containing Coltan due to its repercussion on the prolongation of the civil war in the Congo. As a result of this campaign, the Belgium research institute International Peace Information Service (IPIS) produced a document in January 2002 "Supporting the War Economy in the DRC: European Companies and the Coltan Trade," which documents the leading role played by the companies in promoting the war through their cooperation with the military and exhorting that the international consideration of the Coltan trade be given priority over its local aspects.

The main zones where Coltan is extracted are located in forest zones, such as the Ituri forest. The entry of military commandos and workers

(many of them farmers who have been dispossessed of their lands and resources, seeking the promise of better income), the installation of mining camps, the construction of routes to reach and take out the coveted mineral, all this goes to conspire against the forest as a whole. Formerly fulfilling functions for the region and the neighbouring peoples, the forest, once the traditional lands of the hunting and gathering indigenous peoples, such as the Mbuti and a reserve for gorillas and okapis – a relative of the giraffe – the habitat of elephants and monkeys, has become the scenario for war and depredation.

The African journalist, Kofi Akosah-Sarpong has even stated that “Coltan in general terms is not helping the local people. In fact, it is the curse of the Congo.” He has revealed that there is evidence that this material contaminates, pointing out its connection with congenital deformations in babies in the mining zone, which are born with bandy legs.

Far from clean and innocent, these technologies, on which the concentration of capitals is based and built, have acquired through their “globalisation” their highest expression, contaminating and breaking up the web of life in its multiple and rich manifestations. In the meanwhile, over the tombs of the 2000 African children and farmers who die every day in the Congo, can we absentmindedly continue to use our cell phones? (WRM Bulletin N° 69, April 2003).

Cote d’Ivoire: IMF, cocoa, coffee, logging and mining

For over a decade, the Ivory Coast has been under the influence of IMF structural adjustment programs, of which intensification of exports has been a significant factor. The 1990s saw the heightened pursuit of fiscal and structural reform in the Ivory Coast. The Ivory Coast devalued their currency in 1994 and eliminated export taxes in compliance with the IMF’s adjustment program and in 1995 the country liberalised its domestic markets.

As a result, cocoa production exploded by 44 percent from 1994 to 1996. The Ivory Coast became the world’s leading producer of cocoa, with 40 percent of the global market. The country also ranks third in coffee production, behind only Brazil and Colombia. The flourishing of the agricultural sector, under its flagship crop of cocoa has, however,

brought about substantial changes in land use. This land conversion has been a major factor in the decrease in the Ivory Coast's forest cover by 67 percent since its 1960 independence from France. Forests now total about six million acres, where they once covered 70 million acres, or most of the southern half of the country.

The lucrative cocoa market has spurred farmers to illegally expand their plots into the Ivory Coast's protected forests, threatening about one-third of these areas. Forested areas intended for protection through their official government designation of "sacred" and "classified" are being slashed, burned, and cultivated for export crops. In these forests, almost half a million farmers and their families have grown up to 100,000 tonnes of cocoa, about ten percent of the 1996/1997 harvest.

In 1994, Europe-destined wood products accounted for 11 percent of exports. The logging activities continue to expose the more remote areas of the Ivory Coast to poachers. Where local residents have hunted wild animals for sustenance for thousands of years, today's "bushmeat" trade has evolved into a commercial industry where traditional tools have been supplanted by automatic rifles. The hunting of chimpanzees, birds, turtles and other species has grown into an estimated US\$121 million industry in the Ivory Coast.

The forests of the Ivory Coast remain some of the most significant forested areas throughout Africa. Their loss poses serious risks for regional climatic patterns, which are closely tied to the presence of forest cover. Ironically, the cocoa production is dependent upon these weather conditions and overproduction of cocoa could ultimately threaten the success of the crop.

The IMF has also recently pressured the Ivory Coast to expand its mining and petroleum sectors. (By: Jason Tockman, WRM Bulletin N° 54, January 2002).

Ghana: The impacts of mining

In many tropical areas mining is a major cause of deforestation and forest degradation, generating a large number of social and environmental impacts. A recent study published by Third World Network-Africa

provides a detailed picture of those impacts in the Wassa West District of Ghana. What follows has been extracted from that publication.

The main minerals being mined in Ghana are gold, diamonds, bauxite and manganese, but the most dominant mineral commodity is gold. The ownership structure of the mining industry is mixed, but foreign companies control an average of about 70% shares in these mines. The dominant players are mainly junior companies from Canada, Australia and South Africa, but there are also investments from United States, United Kingdom, Norway and China. While major foreign companies own most mines, prospecting is normally undertaken by junior companies, largely local, Canadian and Australian.

In the specific case of forests, those investment have proven to be devastating. Surface mining represents a serious threat to the last vestiges of Ghana's forest resources and threatens the rich biodiversity of the country's tropical rainforest. There is a growing conflict between sustainable forest management and mining activities. The Tarkwa area – where the research was carried out – lies in the prime timber-producing region with a good overlay of forest reserves. The area is said to contain 44% of the country's closed forest. In primary forest areas, trees reach heights of up to 45 metres, but these are at the summit of hills where mining has not yet reached. Ironically, it has the highest concentration of surface mines and exploration companies – 8 of the country's 14 large-scale mines are located in the area – some of which with licenses to operate in known forest reserves.

The removal of the forest cover is rapidly drying up rivers and streams, leading to the extinction of river hosted animal and plant species. Protected species such as the Red River hog, the roan antelope, the red Colobus monkey and the black Colobus monkeys are some of the species associated with tropical rainforest. At the community level, the threat to ecological biodiversity has economic implications: increased mining activities in the area have partly led to the reduction or extinction of certain flora and fauna species that the communities depend on. Many communities complain that snails, mushrooms, medicinal plants, etc. are no longer available in the area due partly to mining activities.

Additionally, mining has led to growing conflicts among communities displaced by mining operations, as well as to serious mining-related health and social problems (such as malaria, tuberculosis, conjunctivitis, skin diseases, prostitution, drug abuse, high cost of living, inadequate shelter, etc.) and impacts such as polluted community water sources, air and noise pollution, depletion of underground water resources, etc.

As the author of the study says, “while the policy changes introduced generous incentives to investors, the benefits of such investments to the nation are quite doubtful.” (WRM Bulletin N° 41, December 2000).

Ghana: IMF, mining and logging

Beginning in 1983, Ghana has been implementing IMF structural adjustment programs focused on export-led growth, which has included measures to devalue the currency and remove various barriers to trade. While this has resulted in significant economic gains, it has also meant severe detrimental consequences for the rainforests and forest-dwelling people of this western African nation. Ghana’s most recent three-year, US\$239 million loan from the IMF was initiated in 1999, and modified in 2000.

Upon the advice of the IMF, Ghana relaxed mining regulations and nurtured investment by the mining industry through generous incentives and tariff reductions during the 1980s and 1990s. As a result, more than 250 mining companies have been granted concessions, totalling 58,167 square kilometres. Most of these companies operate surface mines, but a few are underground mining operators. Diamonds, bauxite, manganese, and especially gold are the predominant minerals sought in Ghana, and most are being extracted by Canadian, Australian, South African, United States, and other foreign-owned interests.

Export earnings from mining have overtaken earnings from cocoa. From 1992 to 1995, mining exports climbed from US\$107.9 million to US\$682.2 million. Output for Ghana’s gold industry alone grew by 500 percent between 1983 and 1995, and by 750 percent between 1983 and 1998.

Mining in Ghana has had a tremendously detrimental effect on the country's tropical forests, which blanket one-third of the nation. Sixty percent of rainforests in Ghana's Wassu West District have already been destroyed by mining operations, which have also polluted surface and groundwater with cyanide and other chemicals.

The mines have also devastated local communities. Nearby villages suffer from contaminated water supplies and cracked buildings from the mines' blasting. In many cases, the land used for mining operations in Ghana has been forcibly acquired from peasant farmers under ambiguous regulations. Sometimes this acquisition occurred with no compensation. In some instances, the mines have been responsible for the dislocation and forced resettlement of communities numbering in the hundreds and even thousands. Numerous violations of human rights, including shootings and beatings, have also been committed in relation to the mines.

Since 1981, Ghana has experienced forest loss at a rate of 750,000 hectares/year. Forest cover has dropped to 25 percent of its original size, owing to a rate of deforestation that has increased by 50 percent in ten years.

A combination of logging by multinational companies and rural residents seeking income for their basic needs has fuelled what is now Ghana's third largest export sector. Between 1983 and 1988, forestry grew six-fold in terms of revenues. At the current rate, the Ghanaian trees mahogany, odum and afromosia are expected to be depleted by 2007. (By: Jason Tockman, WRM Bulletin N° 54, January 2002).

Ghana: Government puts the last nail in the coffin of Ghana's forest

Two million acres of forest land is lost annually to mining in Ghana, with mining concessions taking over 70% of the total land area, consequently decreasing considerably food production. The World Bank and the International Finance Corporation (IFC) – the private lending arm of the World Bank – have provided start-up capital and cajoled African countries to deregulate, liberalize and privatise their extractive sectors to attract foreign direct investment.

Now, five multinational mining companies operating in Ghana – Chirano Goldmines Limited, Satellite Goldfields Limited, Nevsun/AGC, Birim/AGC, Newmont Ghana limited – will tear apart several thousand hectares of forest of the Subri River Forest Reserve, Cape Three Points reserve, the Supuma Shelterbelt, Opon Mansi, Tano Suraw and Suraw Extension in the Western region, and the Atewa Range forest and Ajenjua Bepo in the Eastern region. The companies invested millions of dollars and found staggering volumes of gold deposits beneath the lush green forests when the previous National Democratic Council (NDC) government gave them free rein to scavenge the forest reserves for gold. Now the NDC is no more in power and they want the present New Patriotic Party (NPP) government to enable them to move into actual mining.

Environmentalists and human rights activists say granting permits for surface mining in these ecologically fragile reserves will aggravate the already alarming rate of deforestation and forest degradation in the country and wreak havoc on freshwater systems and watersheds. Also, concerns about surface mining and heap leaching have been triggered by the lethal impact of cyanide, which is widely believed that even at low levels could have serious health effects in long term chronic exposures.

The reserves contain the only significant blocks of forest remaining in the country; they hold back fires, maintain local rainfall and humidity levels, and provide sanctuary for a stunning array of species listed as internationally threatened with extinction. If the present government grants the mining companies their wish, they will blast roads deep into the heart of the forest reserves, build camps and excavate vast stretches of top soil together with the age old trees. Tonnes of earth and rock debris avalanching down hill in some cases will also blanket rivers and streams and smother the spawning beds of fish. The heavy influx of mine workers and roads that are etched into previously inaccessible areas may also bring boomtown conditions and attract more squatters, loggers, galamsey boys (traditional miners who pan for gold on a small scale), Lotto kiosks and container shops into the reserves. The expatriate staff of the mining companies will likely chase the bush meat for their dinner tables.

A key argument of the hard-line proponents of mining in the forest reserves is that “the country needs money.” At the heart of this argument

lies the economic theory that suggests that developing countries should exploit their natural resources to develop, and that pollution, displacement of communities, etc., are necessary and inevitable side-effects.

Huge fortunes have been made by all kinds of foreign firms operating in Ghana but the returns do not remain in the country. Institute of Cultural Affairs' Lambert Okrah says: "It is not a case of whether we should go hungry while the gold sits beneath the trees. Gold Mining has been going on in Tarkwa, Prestea and Obuasi for so many years; now, are the people there not hungry? These places are so desolate that you will never believe they have gold."

In terms of employment generation, the sector has a relatively limited capacity to generate employment because surface mining operations are technology intensive, relying on a small number of highly-skilled workers who in many cases are expatriates. Valuable historical and archaeological sites in some of the reserves including sacred groves will be destroyed. Agricultural lands and important watersheds will also be endangered and the magnificent reserves turned into an industrial eyesore, blighted by roads, pipelines, construction debris, discarded sardine tins and plastic bags. Even the Environmental Impact Assessment of four mining companies operating in the area gave a total number of populations to be displaced as 22,267, from 20 communities.

Detailing the impact of mining in the Wassa area, lecturer and writer Thomas Akabza points out that: "While mining companies and central government reap the benefits of mining if any, very little benefits go to the people in the mining communities. These people who mostly practice traditional and subsistence agriculture are displaced from their land on which they farm leading to loss of livelihoods and the breakdown of social ties. Additionally mining has led to growing conflicts among communities displaced by mining operations as well as serious mining related health and social problems such as malaria, tuberculosis, conjunctivitis, skin diseases, prostitution and drug abuse."

Friends of the Earth's Abraham Baffoe said: "We can prosper as a nation without having to raze down our forest reserves for mining. We

know very well that after the mining there will be no forests. They're trying to tell everyone that they can reclaim degraded sites but we should not deceive ourselves, its not just a matter of planting grass and trees here and there but the fact is that plantations do not make forests."

Networked with each other nationally, regionally and even globally, mining affected communities in Ghana have stepped up the struggle for human rights, self-determination and social and environmental justice and also calling on private lenders to reject mining projects that create problems for communities. However, human rights violations continue to rise with several cases of arbitrary arrests, violations of the right of access to food, forceful evictions, inadequate compensation and demolishing of villages.

"When the forest reserves are destroyed, the rivers will dry up and so will our lives," they declare. "When we went into the forest to plant cocoyam (*Colocasia esculenta*), plantain and pepper to feed our families, government people chased us out and told us not to farm there again. They told us it's a forest reserve and farming is not allowed there, they wouldn't even let us collect snails from the reserves but now government itself wants to send bulldozers there to destroy the forests because the white man says so. My brother, is this fair? When a poor man cuts a stick or kills a rodent in the forest reserve, he is thrown into jail; when a mining company pulls down a forest reserve, the big men from Accra travel all the way here to celebrate with him, is this fair?" asked Sisi Nana, a thirty year old mother of four at Bibiani. (WRM Bulletin N° 68, March 2002).

Ghana: Gold rush in forest reserves resisted

An expanding international coalition of public interest, human rights, labor and environmental groups has vowed to resist mining in Ghana's forest reserves.

At a press conference on Thursday 8 of May 2003, to launch a campaign against mining in the reserves, the coalition expressed outrage at the decision of the Ghana government to open up some of the reserves for surface mining. Coalition members called on the government to rescind

its decision and withdraw licenses it has already given to some of the mining companies to mine in the forest reserves.

The coalition comprises 13 civil society groups and includes FoodFirst Information Action Network (FIAN), Friends of the Earth, Third World Network, Centre for Public Interest Law, Green Earth Organisation, Abantu for Development, The General Agricultural Workers Union, Wassa Association of Communities affected by Mining, Friends of the Nation, Ceres, and the Integrated Social Development Centre (ISODEC).

The coalition contends that the country's total forest cover has dwindled from 8.3 million hectares at the dawn of independence in 1957 to 1.2 million hectares today, with less than two percent of its native tree cover remaining.

Coalition members said that every year two million acres of forested land is lost to mining. Currently very little closed forest remains outside the forest reserve network with much of it in small scattered patches in swamps and sacred groves. Granting the miners permits to enable them operate in the reserves will result in the decimation of the remaining forest tucked away in the reserves, they warned.

In a country that is already experiencing one of the world's highest rates of deforestation, the coalition accused the Ghana government of prioritizing commercial development over ecological concerns. Speakers pointed out that an ultimate goal of achieving increased investment in Ghana at the cost of environmental and social performance is dangerous.

Speaking on behalf of the coalition, George Awudi of Friends of the Earth said the affected forest reserves include the Subri River Forest Reserve, a Globally Significant Biodiversity Area, which is also the largest forest reserve in the country and a critical watershed between major rivers.

Also affected are Supuma Shelterbelt, Opon Mansi, Tano Suraw and Suraw Extension, and Cape Three Points reserve in the Western region. In the Eastern region forest reserves at risk include Ajenjua Bepo, and the Atewa Range forest reserve, a Special Biological Protection area believed to be the most mineralized reserve in the country.

Awudi said the Atewa reserve contains many unique species such as two endemic kinds of tree as well as six endemic butterfly species and several bird species.

In Tano Suraw, Australia's Red Back Mining got a permit in April to develop its million ounce Chirano Gold Project. The company has been granted a mining lease for the project which includes portions of the Tano Suraw and Tano Suraw extension productive forest reserves. The Chirano Gold project is expected to produce 120,000 ounces to 130,000 ounces of gold a year over a mine life of eight years.

Other companies involved in the gold rush in the forest reserves are Satellite Goldfields Limited of South Africa, Ghana's Ashanti Goldfields Limited, and the Denver based Newmont Mining Company, the world's largest gold producing company. Already, Newmont, and Ashanti Goldfields have been granted permits to operate in the Ajenjua Bepo and Kubi Forest reserves.

Awudi said the government's action in granting these permits is a stab in the back to efforts to conserve and maintain forest reserves and other protected areas in Ghana. The government's decision to allow the mining contradicts its own policy on natural resource conservation and is a dangerous precedent that could set a bad example for other loggers, miners, and poachers, he said.

The government's decision will undermine the economic environmental and social development of the people and the country, said Awudi. He pointed to particular resources that would be damaged such as fresh water, plant genetic resources, supply of medicines, climate control, agriculture, food production and food security.

Pulling down the forest reserves could result in multiple ecological and social consequences such as soil erosion due to the removal of tree cover, the loss of valuable top soil, extensive flooding in rural areas and urban areas caused by excessive silting of river systems, and climate change due to increased carbon dioxide in the atmosphere as a result of the loss of trees, Awudi explained.

Mining in forest reserves contravenes the principles underlying the establishment of forest reserves in the first place, the coalition says,

and it violates several international conventions such as the Convention on Biological Diversity to which Ghana is a signatory.

Citing examples from Ghana's Western region, Awudi said that mining in Ghana has had a detrimental effect on the country's tropical forests which once covered one-third of the country.

Sixty percent of rainforests in Ghana's Wassa West District have already been destroyed by mining operations. Cyanide and other chemicals have contaminated water supplies, and buildings have been cracked from blasting in the mines.

In many cases, Awudi said, the land used for mining operations in Ghana has been forcibly acquired from farmers, sometimes with no compensation. In some instances, the mines have been responsible for the dislocation and forced resettlement of communities numbering in the thousands. Several cases of human rights violations such as beatings and shootings related to mining have also been documented.

The coalition is urging the government to enact a clear cut regulatory framework that prohibits mining in forest reserves. The coalition is also requesting that the World Bank and the International Finance Corporation not fund the mining companies seeking to operate surface mines in the country's forest reserves.

Awudi said he suspects that the true aim of the government's decision to grant mining permits in forest reserves is to prepare the grounds for the opening up of the country's entire forest reserve system to gold mining.

He called on Ghanaians and the international community to take a keen interest in the looming ecological disaster in Ghana and join the coalition in its campaign to resist mining in the country's forest reserves. (By: Mike Anane, WRM Bulletin N° 71, June 2003).

Ghana: The World Bank in the gold scenario

Decades of deforestation and forest degradation have left less than two percent of Ghana's native forest intact. These forests have been

the source of livelihood for forest dependent people, providing them with fuel wood, charcoal, building materials, fodder, fruits, nuts, honey, medicines, dyes. They also play an environmental role regarding prevention of soil erosion, watershed protection, soil fertility/shade, shelter from wind, prevention of floods and landslides, water retention and maintenance of water purity. They are also home to 2,100 plant species, over 200 mammal species including buffalo, leopard, golden cat, chimpanzee, forest elephant and pygmy hippopotamus, 200 bird species including the African grey parrot, and butterflies, all internationally recognized as in danger of extinction, thus designating them as Special Biological Protection Areas and Globally Significant Bio-diversity Areas.

In 1994, some efforts to protect the remaining savanna and moist tropical forests gave way to a Forest and Wildlife Policy Draft. However, the prevailing economic theory that binds Southern countries to the depletion of their natural resources in order to develop – a path which has brought about pollution, displacement of communities, misery and hunger for the majority, while huge profits just for a few companies and local elites – presses hard through the multilateral instruments of power (World Bank, International Monetary Fund).

For Ghana, they have set its gold mining fate. The country stands as Africa's second largest gold producer, at the expense of nature and human rights. Mining operations in Ghana have displaced more than 50,000 indigenous people without just compensation, employed less than 20,000 Ghanaians (due to over-reliance on expatriate workers), burned villages, illegally detained activists, raped women and continually denied the local culture. But this a well established pattern common to almost all mining communities.

At a time when international gold prices were at a six-year high due to investor caution surrounding the impending war with Iraq, the government indicated that it was ready to open the protected forest to mining, thus handing over the country's biological wealth. Newmont – a gold producing firm and a leader in processing technology and exploration headquartered in Denver, Colorado in the United States – and other mining companies had issued veiled threats of lawsuits, or complete closedowns and relocations to Tanzania in order to “convince” the government to follow through on the permits after exploration had started.

Mining operations within pristine forest ecosystems will speed mass deforestation and environmental degradation in the country and pollute the fragile freshwater systems and topsoil with cyanide and arsenic. “Just look at this country’s forest estate. We had about 8.3 million hectares; now we are left with only 1.2 million hectares and we still want to give out some more for mining when we know very well that after the mining there will be no forests,” said Friends of the Earth’s Abraham Baffoe. “Our villages have already been so rapaciously deforested by mining and the health and the quality of remaining forests continue to decline and now they are asking for the forest reserves; do they think Ghanaians wash their faces from their chin upwards? Please write all that I have said and tell the authorities that I said so,” said Akosua Birago a sixty-two year old farmer at Abekoase in Ghana’s Western Region.

Though the Minister of Mines Cecilia Bannerman had denied having given out mining permits to any mining company to mine in any portion of the forest reserves, the President has assured Newmont that his government is willing to support the company to enable it to smoothly operate in the country.

On January 14, 2004, the Ghana National Coalition of Civil Society and Community Groups against mining in forest reserves, which includes more than 17 NGOs and community groups, sent a second letter to the President of the World Bank Group, James Wolfensohn. In the letter, they reminded him of the sign-on letter they had sent to him last year, demanding that the Government of Ghana rescind any permission already granted to mine in the country’s forest reserves and calling upon the World Bank Group to clearly state that it does not and will not support the authorization of mining in Ghana’s forest reserves and also requesting a formal response from the Bank to the Coalition’s appeal. Up to date, no response has still been received from the World Bank.

Instead, the gold mining companies have gone ahead with processes leading to mining in some of the forest reserves. The Government of Ghana and Newmont Mining signed an investment agreement last December 2003. In January 2004, Ghana’s Environmental Protection Agency (EPA) advertised the Environmental Impact Assessment (EIA) of Chirano Gold Mines project in the Tano-Sraw forest reserve, in the

Western Region of Ghana. Canadian diamond explorer PMI Ventures announced this year that the next phase of diamond drilling has started on the nine exploration concessions and applications, which comprise its Ashanti II Gold Plate located in southwestern Ghana.

The social organizations feel the World Bank Group (WBG) is aware and fully behind the government and the companies, which explains the long silence and apparent neglect of their letter. The WBG has a long history of involvement in Ghana's mining and forestry sectors, providing technical assistance on policy and institutional reform, as well as investments in and support for private sector mining operations.

This happens at a time when the WBG is considering its response to the Extractive Industries Review (EIR) report which recommended the vigorous pursuit of good governance, respect for community rights in mining projects and full implementation of the Natural Habitat Policy as a basis for clear No-Go-Zones.

The World Bank's silence is thus a clear answer that it is willing to support mining companies in the destruction of the country's remaining forests; that it will continue assisting in the destruction of local peoples' livelihoods and that it does not care about the fate of any endangered species. (WRM Bulletin N° 80, March 2004).

Kenya: Canadian titanium mining challenged by new government

Tiomin Kenya Limited, a subsidiary of Tiomin Resources Inc. of Canada, began exploring the mineral sands of Kenyan coast in 1995 in search of titanium. Stretching for 402 kilometers, the area is a unique tropical culture with ancient Arabic architecture, coral reefs, and fragile ecosystems.

Further research proved there were five titanium rich sites with 650 million tonnes at Mambui and 1.2 billion tonnes at Sokoke. There were unknown quantities at Sabaki, Mombasa, and Kwale. The deposits were of such quantity that could be mined for 20 years at a rate of 480,000 tonnes per annum. They contain rutile, ilmenite, and zircon, the first two being sources of titanium dioxide (primarily used in the

production of pigments for paints, plastics and paper), while zircon is used in the fabrication of ceramic and enamel glazing, refractories and electronic equipment.

In 2002, the previous KANU (Kenia African National Union) government granted an environmental permit to Tiomin allowing negotiations for a monumental titanium strip mining lease to begin in the Kwale district, near the country's southeast coast. The decision furthered the proposed US\$120-million project, which would displace nearly 5,000 people from their homes and fields, covering approximately 2,400 hectares of land.

Opposition to the mining project has been rife among the local people, with concerns about the desecration of ancestral graves and the fate of their sacred forests, in addition to losing their homes, health, and livelihood. Kenyan scientists were also concerned about sulphur dioxide emissions, the health risk of the release of radioactive uranium and thorium in the titanium laden Kwale sands – now in their thermodynamic stable state–, about the threats to the marine life and to the coral reefs posed by the mining facility.

Now, the project is being challenged by the new National Rainbow Coalition government, which has announced that it is planning to conduct a public forum to discuss whether Tiomin Resources Inc. should be licensed to start mining the mineral in Kenya. The assistant environment minister and renowned environmentalist Professor Wangari Maathai, said that “the government is still hesitant” to license the company “as there are environmental concerns which have not been sorted out.” Her ministry announced that an independent team will carry another environmental impact assessment “to assess the dangers the mining might pose to the ecosystem,” since a previous environmental assessment report presented by the mining firm to the previous government had received much criticism with stakeholders dismissing it as shoddy.

A second study led by Dr. Wamicha, of Kenyatta University, warning about the level of radioactivity and presence of sulfur during the mining, had been scorned by Tiomin. The firm's vice president, Mathew Edler, then said, “Kenya lacks environmental consultants who have the necessary experience to manage the EIA (Environmental Impact

Assessment) for the Kwale project. Placing the EIA title on its cover does not make it credible,” triggering an uproar from the same people now in government.

Corporations such as this are certainly very good at producing all the necessary EIAs. They can easily hire all the necessary consultants to put a stamp of approval on any of their projects. They do have the money. But they lack something far more important: the social and environmental credentials that are present in some of the present Kenyan government officials. Things appear to have changed and the mining project seems to be further away now than it was before. (WRM Bulletin N° 69, April 2003).

Madagascar: IMF opens up the country to mining

Called the “naturalist’s promised land” by French explorer Phillippe de Commerson in 1771, Madagascar is one of the most ecologically rich countries in the world. Twelve thousand species are found on the island the size of Texas; 80 percent are endemic, existing nowhere else. Nine new species of lemur were recently discovered in Madagascar, placing the country only behind Brazil in the number of primates that call it home.

In 1996, the Malagasy government accepted a three-year, US\$118 million loan and bowed to IMF pressure in their agreement to further liberalise trade policies and open its economy to foreign investment. Among the measures adopted were allowing foreigners to own land and eliminating export taxes.

The liberalisation of Madagascar’s trade and investment policies has encouraged the pursuit of mining plans by a subsidiary of Rio Tinto, a London-based mining company. Ranking as the world’s largest mining company, Rio Tinto has an abysmal track record of environmental and human rights violations, stretching from Indonesia to South Africa (under apartheid) to Brazil.

The controversial “Mineral Sands Project” would involve the extraction of ilmenite, which is processed into titanium dioxide, used to produce a white pigment for paint, plastics, and other products. Extracting an

estimated 350,000 to 700,000 tonnes of ilmenite each year, the mine would yield between US\$25 million and US\$50 million annually.

If the mine is approved, it would cover an expansive 15,000 acres and stretch along 40 miles of coastline. The site for the proposed mine includes more than two-thirds of the unique littoral forests that exist on Madagascar's south-eastern coast. The plant diversity of the mining area is high, including 16 species that exist only where the mining would occur. These species face potential extinction if the mine moves forward; also threatened is the brown collared lemur, which is locally endemic.

Several actions by the company and the government indicate that the mine will be approved. In 1998, the Malagasy government agreed to reduce the tax rate on the proposed Mineral Sands Project to two percent from the standard five percent rate. The Rio Tinto corporation has already spent at least US\$30 million assessing the mineral deposits, and has undertaken an extensive environmental impact assessment. The Malagasy government has agreed to make its decision whether to grant or withhold approval by December of 2001, once Rio Tinto has completed their environmental assessment. (By: Jason Tockman, WRM Bulletin N° 54, January 2002).

Madagascar: IMF-promoted mining threatens littoral forests

Madagascar is considered as the world's 11th poorest country and one its top 3 biodiversity hotspots. Originally inhabited by different groups of mixed Asian and African origin who lived on its resources through hunting, herding and "tavy" (shifting) agriculture, in the "way of the ancestors," it was colonised by the Europeans in the 16th century, and became a French colony in the 19th century.

The country suffered huge environmental losses through logging of primary species-rich rainforests used for railroad construction and timber exports; major forest clearance of the most fertile areas was carried out for cash-crops, mainly coffee plantations.

During colonial times, the French implemented so-called "reforestation" activities, based on pines and eucalyptus plantations. They also set

up the first national parks for wildlife preservation, but these had damaging social, and ultimately environmental, consequences. The local Malagasy being defined as inferior and incompetent, the parks were managed by colonials – who would often lined their pockets through illegal logging. With a narrow protection approach, locals were thus simply deprived of their traditional means of subsistence, generating extreme hardship, resentment and leading to more intense “tavy” cultivation for subsistence elsewhere. The French banned “tavy,” but this backfired as it became a symbol of independence and liberty from colonial rule.

Independence came in 1960, and after failed attempts to improve the country’s economic situation, Madagascar finally embraced privatisation and market liberalisation and was forced by the IMF in the early 1980s to adopt structural adjustment programmes (SAPs) to secure World Bank funding, with detrimental effects.

In the 80’s, “natural” disasters of droughts and cyclones swept the Malagasy territory. Carbon emissions from industrialised counties are heavily implicated in global climate change, including increases in the frequency and severity of extreme weather conditions. While the Malagasy practice of “tavy” naturally adds to carbon emissions, its contribution to the global greenhouse effect and thus exacerbation of natural disasters is minimal compared to the fossil fuel emissions of the richer nations.

Madagascar’s deforestation has major impacts on its own. The resulting erosion and silting up of rivers facilitates the kind of devastating floods the island experienced in 2000; the flooding, in turn, contaminated water supplies thus worsening the epidemic of cholera still playing havoc across the island.

While its forests are further threatened by western business interests such as mining, IMF pressure continues to open the economy to foreign investment, as through eliminating export taxes. It is along these lines that the government has recently announced its decision to grant an environmental permit to QIT Madagascar Minerals S.A. (QMM) (owned 80% by Rio Tinto and 20% by a Government of Madagascar agency called OMNIS) for its proposed ilmenite mining project in south-eastern

Madagascar, in the Autonomous Province of Tulear, near the town of Fort-Dauphin (Tolagnaro).

A report commissioned by Friends of the Earth (England, Wales and Northern Ireland) for presentation to the Malagasy government, underlines the impact of such activity. The mining of the Mandena sector, according to QMM's own data, will destroy 203 hectares of littoral forest. The company's calculations may also go awry should "significant migration to the area occur without proper planning." It confesses in its own Social and Environment Impact Assessment that "it is ... difficult to accurately estimate what forest area will remain in Mandena once the mining operations are completed," although "historical trends lead us to believe that the residual forest will have disappeared even before the onset of dredging operations." FOE report found this crucial section of the assessment "unacceptably speculative. It hinges on an unsubstantiated conjecture – indeed the false syllogism – that, without the mine's conservation components, all the littoral forest will disappear over the next 20 years."

Also Conservation International has denounced that "the mining operation [could cause] a net loss of access to the services and goods on which communities are dependent [from the rainforest]." Crucial supplies of vital resources might be jeopardised, both in quality and quantity.

The company also proposes a new road between Fort Dauphin and Eholà, as an integral component of the regional development plan, omitting to discuss its impact on existing forests and on the local and regional economy which will be thus probably swallowed by the economy market with its notorious impoverishing outcome. (WRM Bulletin N° 55, February 2002).

Madagascar: Rio Tinto mining project goes ahead... for the worst

Madagascar is widely recognised as one of the most ecologically rich countries in the world, hosting unique plant and animal species. However, dating from French colonisation, the export-led production pattern was introduced in the country. Logging of primary rainforests for use in

railroad construction and timber exports, and major forest clearance of the most fertile areas for cash-crop plantations was carried out, throwing a mainly subsistence farming society into famine and scarcity.

Now, Madagascar is amidst the poorest countries. However, it would be wise that language reflects the truth: the Malagasy people are not poor but have been impoverished, as has happened with most of the southern peoples.

At present there are no foreign countries overtly holding reins of the government, but colonialism still has its clutch deeply rooted in the country's economy. The modern pirates have come to "save" the country: the IMF has paved the way (through liberalisation requirements conditioning credits) for the Anglo-Canadian mining giant Rio Tinto to implement a project in the island.

QIT Madagascar Minerals S.A., (QMM) a Malagasy company owned 80% by Rio Tinto and 20% by the State, began to carry out a feasibility study and in November 2001 was granted an environmental permit for the project.

Within the framework of the new "greenwash" push of transnationals, Rio Tinto is eagerly trying to prove the unprovable: that mining is sustainable for the environment and the people! But everybody knows (or should be aware of) the real aim of any business company: to make profits. According to *The Handbook for Corporate Action*, this project "forms a key part in maintaining Rio Tinto's future share of the titanium dioxide feedstock supply."

Madagascar's government has given the go-ahead of work starting in 2005. The election last year of Marc Ravalomanana brought to the presidential palace a young, self-made tycoon promising progress. A darling of the west, he is keen on Rio Tinto's proposed ilmenite mine, in the hope that it will generate jobs and funds for the exchequer. Marc Ravalomanana has met in 2003 with U.S. Secretary of State Colin Powell on May at the US. Powell said Washington would support President Ravalomanana in his "efforts to institute political and economic reforms." The news a month later is of the World Bank granting US\$32 million International Development Association (IDA) credit to "help Madagascar manage its mineral resource more effectively."

Interviewed by a journalist from *The Guardian*, Serge Lachapelle, executive director of QIT, announced that: "We will keep going, no matter what." The warning came as the project has arisen strong opposition from environmental organisations such as Friends of the Earth, Conservation International, and WWF.

The company's "sustainable scheme" is that each of the three proposed mining sites would leave untouched a conservation area totalling 10% of the mined area. In addition, the company would restore another 10% of forest and in the remaining area plant fast-growing trees, such as eucalyptus, to provide charcoal and timber for local people. Rio Tinto hopes that it "will help create ecosystems from scratch." What took nature millennia could be restored with a recipe: save top soil from the dredger, plant 50% so-called pioneer trees which like the sun, followed later by 40% which like sun and shade, followed by 10% which like just shade. It just makes seem so easy to play God!

Friends of the Earth has already made a report where it concluded that the mining project would not be compatible with true sustainable development in southeast Madagascar, or for the country as a whole. During a decade and a half of intensive preparation and study, this supposedly "green" project, backed by an impressive array of global experts, has failed to prevent the escalating degradation of the environment which the company claims the mine will address and dramatically mitigate. Is this intentional? Is QMM/Rio Tinto deliberately holding back on initiation of conservation and restoration measures now, in order better to promote the idea that the mine project is indispensable to this purpose?, asks Friends of the Earth.

Also WWF will issue a report on the mine later this year. A member of the organisation living in Fort Dauphin, a town which will be affected by the mining project, said that the research stations shown to *The Guardian* amounted to a "dog and pony show." The conservation areas were too fragmented to be viable and would pressure certain species. Nor had the company thought about the potentially explosive conflict of placing at least 800 foreign labourers in a small town of 3,000 unemployed young men.

A tour of the surrounding villages yielded conflicting views: most people, barefoot and in rags, knew a mine was planned, but exactly where and

when, and its likely impact were a mystery. "It will destroy traditional agriculture, no way," said Karae, head of Houtotmotre village. After conferring with other elders he added: "Though, with the drought we don't have any crops, so then again maybe we have nothing to lose." Albert Mahazoly, 45, was recently laid off from a sisal plantation which was just about the only way of making money in Ankistry village. Now his family were among those queuing up for sacks of maize from the World Food Programme. This was a humiliation Mr. Mahazoly was not planning to tolerate for long. "I'm ready to go to the mine. I'll do whatever they ask me," he said. The possibility that his unskilled labour might not be wanted came as a shock. "But I'll do anything," he said. And so the circle is closed: deprived, impoverished and plundered. (WRM Bulletin N° 72, July 2003).

Senegal: Government limits mining as a means to protecting forests

Senegal has announced it will not grant any new permits for quarrying and mining in the country's 233 forest conservation areas. The government of Abdoulaye Wade has said it will encourage companies already operating there to move out as part of efforts to reduce deforestation and protect the environment.

Environment Minister Modou Fada Diagne said that his department would begin talks soon with quarrying companies that already operate in the country's five million hectares of forest reserves and national parks with a view to moving them elsewhere. He added that the granting of all new mining and quarrying permits would be conditional on the approval of social and environmental impact studies and an undertaking by the firms involved to restore the environment to its original state once the extraction of minerals ceased.

The new policy is particularly aimed at reducing deforestation around the capital Dakar and the towns of Tambacounda, Louga, Thies and Kaolack. According to the UN Food and Agriculture Organization, Senegal lost over 45,000 hectares of forest between 1990 and 2000. According to environmental experts, the uncontrolled expansion of quarrying in Senegal has led to coastal erosion, a reduction in the area of available farmland and skin and lung problems for people who live

nearby. However, President Abdoulaye Wade has not granted any new mining or quarrying permits within Senegal's forest reserves since he was elected three years ago.

It is hoped that the stance of President Abdoulaye Wade and his Environment Minister Modou Fada Diagne encourage other African leaders to follow suit and struggle to not let their countries bleed to death. The so called African "conflicts," who actually are outright wars with hundreds of thousands of people killed, in most cases are triggered and fuelled by mining interests, where in many cases foreign corporations play a leading role. (WRM Bulletin N° 72, July 2003).

South Africa: Global gluttony - Mines feeding on forests

The colonial period of South African history has left a mindset that encourages the exploitation of anything that can be dug out of the ground and shipped off to feed the rapacious appetites of first world industries and consumers. This is what drove the colonial imperative of England, Portugal, France and Spain in centuries gone by, and although there has been political transformation in previously colonised African countries, the economic forces remain largely unchanged. If anything, achieving independence has resulted in a worse situation, where new governments, under pressure to balance their budgets, have allowed the exploitation of mineral and other resources to accelerate, yet still without achieving economic independence.

South Africa is most famous for its gold and diamonds, but has many other minerals. The bulk of these are exported in their unbeneficiated state.

Early mining was mostly with excavated shafts that required timber supports. The gold boom caused massive demand for timber for mining needs, housing, transport wagons, and railway sleepers; which was drawn from forests that were then abundant in eastern South Africa. When it became apparent that the resource was limited, alien tree plantations were established. Theoretically, the pressure on forests has been transferred to plantations, but there are many ways in which they impact negatively on the few remaining patches of natural forest.

Modern equipment and technology have made it possible for mining to take place on a far greater scale. Where minerals are located close to the surface, there are massive open pits from which ores are excavated. South Africa's most famous open pit is the Great Hole of Kimberley, now exhausted. Open mining has been common along the west coast, in the beautiful Namaqualand area, as well as in Northern Cape (Sishen), and Northern Province (Phalaborwa).

There has also been strip mining on the eastern seaboard, which is geologically active in the sense that there is movement of the coastal interface caused by the natural process of sand dune establishment. This process has been active for over 100 000 years, but more recent dunes (up to 25 000 years) have presented an opportunity for the extraction of minerals. The first large-scale mining of these minerals – mainly ilmenite, zircon and rutile – took place on the KwaZulu Natal south coast in the 1950's. This operation had limited economic value and was abandoned.

In the early 1970's, the company RBM (Richards Bay Minerals) started mining the forested dunes along the northeastern coast of KwaZulu Natal. This development took place in an era of political isolation when South Africa was under pressure, both internally and externally, to end Apartheid. The country became a victim of the illegal government and its foreign allies' plans to exploit whatever raw minerals were available. Foreign companies that wanted minerals were given incentives in the form of subsidies, tax breaks and export rebates. Environmental costs arising from these artificially driven operations were ignored and effectively passed on to local communities. As a consequence, future generations of South Africans will have to bear the cost of a grossly damaged environment, and the loss of the use of the resources that have been stolen. The only tangible benefits of these activities, was the foreign currency that was so desperately needed by South Africa for sanctions busting; and the low cost to the miners, boosting the profits of processing and manufacturing operations in countries like Canada.

Whilst all mining creates some problems in terms of environmental destruction and exploitation of resources (including people), the Richards Bay Minerals example must be one of the worst.

The scale and extent of the deliberate environmental destruction that is part of the mining process continues today. It is of a vast scale that is difficult to imagine – the expression “moving mountains” might give an idea of the amount of soil that is moved and processed in the course of extracting the minerals that occur in the dunes.

The mining company obtained prospecting and mining leases from the South African government (either directly or through the surrogate Kwa Zulu homeland state). The initial agreements appeared to favour the local people who had been moved from the mining area, but over time, the aspects of the agreements that were designed to protect and to compensate local communities, have been systematically eliminated.

The natural environment, which was primarily pristine forest with trees hundreds of years old, has been destroyed. Thousands of hectares of this rare forest type have been replaced with an experimental effort to restore vegetation, that may one day resemble the original forest, on the sand dumps that have been created where the mining has already proceeded.

The mining company has spent astronomical amounts of money on propaganda claiming that their vegetation efforts have been successful. If one looks behind the public relations façade, there is a very different picture, that of an ecological Frankenstein. The mining operation has failed to abide by the conditions of the leases that stipulated the area along the frontal (facing the sea) dune that was not to be mined. Similarly, areas along natural waterways and lakes that should have been protected have been mined illegally, and no penalties have been imposed on the company by the government.

There are many downstream and off-site impacts of the mining that are also largely ignored. Dune slumping resulting from the failure to observe the setback line along the coastal dunes, has created serious erosion and effectively made beaches unusable for tourists and other recreational activities. The authority concerned, the National Dept. of Mineral & Energy, has apparently ignored other problems, because the perceived benefits from the mining outweigh the damage to the environment.

There is a very poor understanding of the intrinsic value of natural forests and the benefits that are derived by humans from the ecological functions

of these forests. The company's unproven assertion that their vegetation programme will eventually enable the original dune forest to re-establish on their mine dumps has reduced public antipathy towards their operations. The same lie has been told so often that it now appears that even fairly well educated individuals have been blinded to reality. The mining company has entered into funding agreements with academic institutions such as the Mammal Research Institute of the University of Pretoria, which has consistently delivered research findings that appear to support the company's claims of success. There are however, many contradictory views, and research by scientists from the University of Cape Town has challenged the claims of those paid by the mining company. In terms of empirical evidence, there is very little to support the notion that the current experiment will lead to the re-establishment of the forest and thicket that has been destroyed.

Future generations that inhabit the area presently being mined will have to pay a large price for what has happened during the last 30 years. There will be no mineral resource after the mining ends, and the intrinsic value of the landscape will have been virtually eliminated when the mining company packs its bags and moves on to greener pastures. The area that has been mined at Richards Bay is now essentially a heap of homogenous sand that no longer has the capacity to function ecologically or hydrologically in the manner of the original dunes. The land will be unable to support agriculture as before. There will be no hardwood resource to supply wood for implements and housing. The plants and animals that supplied medicines and food will have been wiped out. Two thirds of the area will be planted with alien *Casuarina* plantations which may have some value as fuel wood to local people but this will have very limited benefit. Indigenous *Acacia natalitia* trees that have been planted will also have limited use as firewood, and the undergrowth may provide some browse.

Another public relations ploy of the mining company has been to establish "community projects" that are supposed to help develop skills to enable local people to sustain themselves after the mining comes to an end. The training offered includes basic trades and agricultural activities, which may help to some extent but at the same time, traditional skills and knowledge have been lost. The intricate relationship between local people and the natural environment will have been replaced

with the exploitative mindset of the multinational corporation that has dominated the local economy since mining began. But then there will be nothing left to exploit. (By: Wally Menne, WRM Bulletin N° 71, June 2003).

Tanzania: Gold mining adds new problems to Lake Victoria

The Tanzanian territory embraces a wide variety of landscapes, including mountains, savanna, bushlands and forests. Some 53,000 square kilometres of the country comprises lakes, being Lake Victoria the biggest one. With a total area of 69,490 square kilometres, Lake Victoria – the second biggest lake of the world – is shared by Tanzania and Uganda. 32,890 square kilometres belong to Tanzania.

It is an essential resource for the life of the surrounding region, which has one of Africa's highest population densities. Farming, fishing and boatbuilding are the most significant economic activities that directly depend on the lake.

The ecological health of Lake Victoria has been deeply affected by a combination of degrading processes of different nature, such as the clearance of natural vegetation along the shores, a booming fish-export industry, the disappearance of several fish species, the eutrophication of the water body, and the dumping of untreated effluents by several industries. Traditional lifestyles of lakeshore communities have been disrupted and it is feared that together with the degradation of the lake they could disappear.

This sad story goes back to the first decades of the 20th century, when the British colonialists started to exploit Lake Victoria's watershed, and continued after the political independence of the country in 1963. During colonial times the surrounding forests were cut down, and the swamps that were part of this complex hydrologic system drained. Cash crops, such as tea, coffee and sugar, were planted instead. Over the years they have grown in size and number. Since these crops are based on Green Revolution agriculture, a significant portion of the chemicals used are washed into rivers during the rainy season, and end up in the lake, causing eutrophication and providing nutrients for algae bloom, which completely alters the dynamics of the whole water body.

The exaggerated growth of the economic activities in the lake and its surrounding area has overcome the carrying capacity of the ecosystem. Not only the surrounding lands but also the water body in itself is subject to overexploitation. With the introduction of modern fishing methods, overfishing has become a problem and catch sizes have dropped. A survey of the lake carried out in 1980 revealed a total reverse in biomass composition. As a consequence the populations of smaller fish, which traditionally have been the source of livelihood for nearby communities, have been decimated by larger predators and overfishing.

Polluting industries – from textile and leather-tanning to paper mills and breweries – located near the lake, constitute another cause for the present situation. A recent study shows that industrial plants located in the Tanzanian territory produce daily two million litres of untreated sewage and industrial waste that flow into the lake.

To add to the problem, last June a new and extremely polluting activity began in the region: gold mining. The companies involved are Ashanti Goldfields of Ghana and AngloGold of South Africa. Tanzanian President Benjamin Mkapa himself, who inaugurated the Geita Gold Mine, the biggest one in East Africa, located 20 kilometres away from the southern shore of Lake Victoria, even pledged more incentives for investments in the sector.

Environmentalists from Tanzania and Uganda have clearly expressed their opposition to gold mining, and warned that there is a high risk that sodium cyanide, a strong poison used to extract gold from ore, might leak into the lake through the rivers and cause an additional negative effect to the already affected water system. Concerned voices from the academic sector in both countries have also harshly criticized the Tanzanian government for supporting a project that would jeopardize the environment of the lake and the lives of communities living around it. It has been underscored that mining in the region will also bring negative consequences for the region and the country's economy, since the European Union is about to ban all fish imports from East Africa because of the presence of toxic elements in the fishes' bodies. (WRM Bulletin N° 39, October 2000).

Tanzania: Biodiversity loss linked to IMF-promoted commercial agriculture and mining

A country with profuse forests – open hardwood woodlands being the dominant type though there are also closed forests and mangroves –, Tanzania has 33.5 million hectares of forest cover richly endowed with biodiversity, which account for one-third of the total land area.

However, this biodiversity is being threatened by several direct and underlying processes which have implied the clearing of forest land at a rate of 400,000 hectares per year during the past two decades. One of those damaging processes relates to forest conversion to commercial agriculture and mining, which in turn have to do with export-oriented policies widely applied at the national and global levels.

During the last years, the government of Tanzania has given high priority to the development of agricultural production aimed at export markets. Caught in the ups and downs of market prices established by powerful economic groups, the falling price of Tanzania's main exports, plus the growing cost of imported products, led the country to suffer the trite fate of other Southern countries. In 1986, Tanzania signed a structural adjustment agreement with the International Monetary Fund (IMF) and continued signing IMF loan agreements for the following 15 years, thus increasing its burdensome debt. In the late 1990's, annual debt servicing averaged US\$ 438 million – amounting to 37% of total export revenues.

The IMF loans associated Structural Adjustment Programme (SAP) requires the implementation of a number of policies such as support to large-scale export-oriented agriculture – e.g. the elimination of a tax on agricultural exports – and mining for gemstones and other precious minerals by domestic and foreign companies.

Between 1980 and 1993, 25% of the nation's forests were lost. Logging, deforestation and mining have been some of the major causes, but almost half of forest loss was due to cultivation of export crops. In the district of Simanjiro, for instance, over 50,000 hectares of land were cleared to give way to the production of beans. Eighty large-scale commercial farms, ranging from 90 to 13,000 hectares, produce those crops, mainly exported to The Netherlands, and have resulted in the displacement of the local Maasai inhabitants.

Meanwhile, agriculture for domestic consumption remains low and the predominant productive model has implied the displacement of thousands of local inhabitants, land-tenure problems, more poverty. Also, as mining companies have acquired large concessions, local pastoralists and farmers have lost access to land and water rights, and forests have been plundered to supply fuel related to the mines. In this way, forests are lost as both resources for local peoples' livelihoods and as habitat for wildlife.

Almost 10 years have passed since the Convention on Biological Diversity was launched. In these 10 years, SAPs have continued imposing their policies in Tanzania, reinforcing the world labour division: commodities produced by impoverished and biodiversity-rich Southern countries to feed money-rich consumerist Northern markets. Everybody knows – at least at the decision-making level – which are the causes of biodiversity loss. The IMF and the World Bank know. The Tanzanian government knows. Transnational corporations know. The governments of consumer countries know. However, destructive trends have not only not diminished but, on the contrary, have increased.

This scenario clearly shows that Southern countries like Tanzania, which rank on the weakest side of the “international order,” are pushed to follow policies imposed by multilateral institutions and their leading Northern countries. Those policies are inherently unsustainable since they imply at all levels the destruction or degradation of the countries' biodiversity. Political will within Southern country governments to conserve biodiversity is thus a necessary yet insufficient prerequisite for biodiversity conservation, because many of the underlying causes lie outside the country's borders. That is precisely one of the main issues that need to be addressed by the Convention on Biological Diversity. Will delegates have the necessary political courage to address it at the upcoming April meeting in The Hague? (WRM Bulletin N° 56, March 2002).

Tanzania: World Bank supports Canadian mining plunder

In August 1996 the Tanzanian government authorities in collaboration with a Canadian-owned company called Kahama Mining Corporation Ltd. (KMCL), forcibly removed over 400,000 artisanal miners, peasant

farmers, small traders and their families from their land in an area called Bulyanhulu in Shinyanga Region, central-western Tanzania. KMCL was then a wholly-owned subsidiary of Sutton Resources, based in Vancouver, Canada.

The removals were the culmination of a two-year struggle pitting the miners and the company over the control of gold deposits at Bulyanhulu. Within days of the operation to remove the miners, serious allegations emerged that over 50 artisanal miners were killed after they were buried alive in mineshafts when the authorities and company officials decided to backfill the shafts.

The Tanzanian government refused to investigate the alleged atrocities when they were reported. No compensation for loss of property or life was ever issued. Conversely, Tanzanian attorneys Tundu Lissu and Rugemeleza Nshala, of the Lawyers' Environmental Action Team (LEAT), who spearheaded a campaign about the alleged killings, had faced charges of sedition for their advocacy on the grounds that they should provide evidence supporting allegations.

In March 1999, Barrick Gold Corporation, another Canadian mining giant acquired the Bulyanhulu deposits through its acquisition of Sutton Resources and its Tanzanian subsidiary. The Multilateral Investment Guarantee Agency (MIGA), the World Bank Group's political risk insurance arm, and Canada's Export Development Corporation (EDC) guaranteed the project, covering the investment against the risks of transfer restriction, expropriation, and war and civil disturbance.

Barrick Gold has since built an ultra-modern underground gold mine at Bulyanhulu, which was opened amid great fanfare by Tanzanian President Benjamin W. Mkapa in July 2001.

However, in a submission to the Extractive Industries Review of the World Bank, held in Maputo, Mozambique in January 13-17, 2003, the Lawyers' Environmental Action Team provides ample proof about the negative social, environmental and economic impacts of this mine. The submission summarizes its findings in this manner:

"The investment stands as a monument to the plunder of the natural resources of poor countries such as Tanzania by the multinational

corporations of the rich industrial countries of the North; and the impoverishment and further marginalization of the mostly rural communities in mineral rich areas of Tanzania and elsewhere. It is a living testimony of the proposition that where multinational corporate interests are at stake, notions of rule of law, good governance and a respect for human rights take on a secondary importance to be swept aside whenever expedient. It provides the proof to the charge that the World Bank Group almost always acts against the interests of the vast majority of the poor and the marginalized groups of society. The Group cannot, therefore, live up to its poverty alleviation credentials while at the same time maintaining support for socially ruinous projects such as Bulyanhulu Gold Mine.” (WRM Bulletin N° 71, June 2003).

ASIA

Burma: Human rights abuses linked to foreign investment in “development”

Foreign investment in mining, gas exploitation and dam mega-projects – identified with “development” – in fact constitute a direct cause for human rights abuses and a threat to environmental sustainability in Burma. The country is governed by a military dictatorship since 1962, which has imposed a regime characterised by state terrorism.

The social and environmental damage mining operations have brought to Burma are analysed in the recently released report “Grave Diggers” written by Roger Moody and disseminated by a group of Canadian environmental NGOs. The report highlights the activities of Robert Friedland and his mining and financial empire Ivanhoe Capital Corporation (ICC). Friedland is notorious for the environmental disasters caused by mining operations he owned in the United States and Guyana, and his corporate links to mercenary armies in Sierra Leone. In 1994 ICC reached an agreement with the Burmese military regime to exploit the Monywa copper mine. These operations have caused water pollution and skin problems to local residents while safety measures were completely absent. Additionally, local dwellers were threatened by the use of explosives for mining. It is astonishing that even though the

financing for this operation is handled through a firm registered in Canada (Friedland's Ivanhoe Mines Ltd.) and human rights organizations worldwide have condemned corporations for doing business in connection with the brutal Burmese regime, the Canadian government has completely overlooked Ivanhoe's investment in that country.

The Yadana gas pipeline is another case where the performance of foreign companies in collusion with the government has been severely questioned due to its environmental impacts and to the violation of human rights to the detriment of the local villagers. On September 7, 2002 a Federal judge of Los Angeles cleared Unocal Corp. – one of the largest remaining U.S. investors in Burma – of responsibility for alleged human rights abuses during the construction of the Yadana pipeline. Unocal Corp. holds 28.6 % of the shares of the consortium in charge of the works, which ended in 1998. Lawyers representing Burmese villagers that presented the demand in 1996, who claim that they were either forced by the military to work on the project or were terrorised for not doing so, said they would appeal the decision. Unocal did not dispute the assertion that it was aware that human rights abuses were being committed by the host government during the pipeline project. Nevertheless, according to the judge, it was not proven that the oil company had conspired with the military to force the villagers to work. The question is whether justice can accept the "omission" of a powerful transnational in a case regarding human rights abuses, especially when its activities are favoured by those directly responsible for them.

Last but not least, a dam project led by the Thai dam-building company GMS Power and the Electricity Generating Authority of Thailand (EGAT), which aims to build a huge dam at the Salween River, the only remaining free-flowing major river in the region, has recently also given place to human rights abuses in Burma. Since 1997 villages in Kunhing Township, along the banks of the Salween and its tributary Nampang have been relocated. Altogether 175 villages, 4,018 households and more than 1,400 hectares of fields would be flooded when the dam is completed. But since last May the situation got even worse. Villagers in southern Shan State have denounced that the Burmese Army had begun an operation of extermination of the population located in the areas to be flooded by the dam's reservoir. (WRM Bulletin N° 39, October 2000).

Burma: Behind the glitter of rubies, sapphires and jade

Burma is famous for its rich deposits of gemstones which include rubies, sapphires, and jade. The town of Mogok, which is located in the eastern corner of Mandalay Division along the Shan State border, has been the centre for ruby and sapphire mining for eight-hundred years.

The mining enterprises operating in Mogok were first taken over by British interests in 1888. They were later nationalized in 1962 following the military coup headed by General Ne Win. Until comparatively recently, however, these enterprises were relatively small-scale and caused limited damage to the surrounding environment. Since 1989, there has been a major shift towards large-scale mining operations which has transformed the industry.

The rapid rise of non-local actors, capital, and equipment have also accelerated the ecological devastation of the region. Between 1989-1992, modern mining equipment caused extensive damage, especially around Mogok and Mineshu. In the process, local businessmen have been displaced by increased competition and corruption. They now find themselves working as poorly paid laborers for outside business interests. Another effect has been the gradual migration of workers and small businessmen from Mogok to mining areas in Shwe Gin, Pegu Division. In the process, many local Karen miners and farmers have experienced the same social, economic, and environmental problems that prompted these entrepreneurs to leave Mogok in the first place.

The expansion of intensive forms of resource extraction is, in most cases, unsustainable. Mining activities are occurring in a context where there is no regulatory oversight. People working in mines during the rainy season regularly risk drowning from flash floods or the collapse of retaining walls. Workers who sort gems after they are removed from the ground must do so under the hot sun since much of the surrounding area has been clear-cut and is devoid of shade. Workers have also reported that breaks are rarely allowed and that they regularly face verbal and physical abuse from the soldiers who provide on-site security for the companies.

More recently gravity-fed, multi-level sluices with screens have been used. But with the arrival of the outside business interests, miners have begun using hydraulic gold mining. This highly destructive method uses diesel-powered pumps to force jets of pressurized water through a hose which is then aimed at a river bank or the side of a rocky outcropping. Under such pressure, large amounts of rock and earth are simply washed away. The gold-bearing sediments are then channeled through a large sluice which is typically lined with liquid mercury (quicksilver). The mercury captures the finer particles of gold through a chemical process known as amalgamation and they are later separated. The remaining mix of debris and polluted muds are washed downstream. Since mercury is highly poisonous to people and animals, the practice has been banned in many places around the world. Currently, it is unknown whether these chemicals are being used in these two locations, although it is widely used elsewhere in Burma for gold mining, having caused severe environmental damage.

Local sources report that mining activities, especially the use of hydraulic mining, around Mogok and Shwe Gin Township have led to a common pattern of problems, including:

- * The collapse of river beds due to the removal of silt and soils from banks of the river, the base of trees and walls
- * Increased levels of soil erosion
- * Increased levels of sediment
- * Reduced fish stocks due to changes in water temperature
- * Increased water pollution from mining tailings (i.e. the finely ground up materials left after the desired ore or mineral is removed)
- * Increased water pollution from “slurry” or acid mine drainage (i.e. the mixture of tailings, water, and chemicals, usually cyanide or mercury)
- * Increased water pollution due to diesel fuels and oils leaking from the pumps and other mining equipment
- * The loss of ponds and other freshwater sources, such as small creeks, from over-pumping
- * The destruction of arable fields due to “deep trenching” and indiscriminate use of heavy equipment (e.g. bulldozers and heavy equipment)
- * Increased use of timber to construct sluices and reinforce underground tunnels
- * Increased used of non-timber forest products (e.g. bamboo and rattan).

Given Burma's political and economic reality, most people have little possibilities of opposing these mining activities. Simply, people in these parts of Burma are caught between powerful military and business interests. With few alternatives left, many communities are forced to participate in the unsustainable exploitation of their own local natural resources, even though they know they are destroying the very ecosystems they need for their own survival. (WRM Bulletin N° 77, December 2003).

India: Mining and plantations put National Park at risk

The temporary work permit given to the Kudremukh Iron Ore Company (KIOCL) to continue the extraction of iron in the Kudremukh National Park, located in the Western Ghats region of the state of Karnataka, has given place to severe criticism from national and international environmental NGOs, which had been putting pressure on the authorities for the company's request to be denied.

KIOCL has been operating in the Aroli and Malleshwara regions of Kudremukh National Park, under a 30-year lease, which expired in July 1999. Since then, the company has been lobbying to obtain a 20-year extension on the lease, but it has only been granted two successive year long temporary permits.

Impacts of mining in the area are apparent. A report of the Indian NGO Environment Support Group (ESG) proves that many fish varieties have disappeared due to pollution, and points out that farmers complain about the decline in agricultural productivity downstream due to deposition of mine tailings. River pollution has provoked an increase in cases of disease among villagers. In 1987 a 67 metre long slurry pipeline broke and its leakage reached the Yennehole River, which led to severe environmental damage.

The only action supposedly undertaken by KIOCL to mitigate the impacts on forests and rivers in the area has been to plant alien trees! The company adduces having implemented a "reforestation" programme by planting 7.5 million acacia, eucalyptus and other alien tree species. If such claims were true it would make things even worse, since the substitution of a portion of forest by a plantation prevents the

regeneration of the secondary forest, thereby impoverishing the environment. Both mining and plantations are a direct cause of deforestation. Nevertheless that of Kudremukh constitutes a particular case where both activities combine to destroy the forest.

At present the State Government has ordered an environmental impact study be undertaken before an extension on the lease is granted. However, this is not seen as a sufficient guarantee by local environmentalists. Leo Saldanha from the Environment Support Group says: "I sincerely believe that a systematic public campaign is the most appropriate option to ensure mining ends in Kudremukh. Nothing like the people's will to bend a government that is intent on violating public commitments and the law." (WRM Bulletin N° 40, November 2000).

India: Mining ancestral lands for corporate profits

Norsk Hydro, a Norwegian corporation with investments in light metals, oil, petrochemicals and agriculture, along with Canadian transnational Alcan and India's Hindalco plans to mine bauxite on sacred tribal lands in Eastern Indian state of Orissa. The project would also process one million tonnes a year of bauxite through a joint venture with the company Utkal Alumina Industries Ltd (UAIL).

The Baphlimali Hills, where Hydro plans to mine bauxite, is the source of 350 perennial streams, including the tributaries that feed the Indravati River. To the Adivasis of the region, Baphlimali is a sacred life-giver. Though the region's forest cover has been depleted over the years, there is still enough left to sustain the region's 70-odd villages. Kutrumali, a huge mountain the companies plan to mine, has forests covering around 10-15 per cent of the plateau top. Whatever little is left of the forest resource, after having been plundered by the state government's commercial activities, is crucial for the tribals' food security during the dry months. Utkal's plans to mine 200 million tonnes of bauxite from the Baphlimali plateau would destroy this watershed. Estimates of the people negatively affected by the Utkal project range from 750 (Hydro's estimate), to 3,500 (Utkal's estimate) to 60,000 (Norwegian Agency for Development Cooperation estimate).

The US\$1 billion project has led to confrontation between the tribal villagers who stand to lose their lands and forests, and the company

and its supporters, including the State Government of Orissa and the police. On December 16, 2000 protests from some 4,000 people from 15 villages in the area took a toll of three men shot dead and nine others seriously injured by armed police. Norsk Hydro's initial reaction was to temporarily curtail project activities pending a lower level of tension in the project area. But that decision comes several years and three lives too late. The company had fuelled tensions which have been high ever since 1993, when the predominantly tribal population of this region first heard of Utkal's plans to mine bauxite.

Utkal has downplayed the importance of the ecosystem it plans to dig up, and has misrepresented sludge deposition rates in its application for environmental clearance. Critics accuse Utkal of presenting misleading data about the region's economy and ecological status. According to the NGO Norwatch, the deforestation caused by the mines and smelter will be aggravated because of the hilly terrain, resulting in more frequent flash floods, landslides, and nutrient enrichment of water bodies. Simultaneously, forest loss would also mean the loss of habitat for the region's wildlife including bears, jackals, wolves, sambars (a deer-like animal), spotted deer, leopard cats and the occasional tiger.

Corporate interests have the government's support to carry out their plans-for-profit. They encroach upon peoples' livelihoods and the environment without even knowing what they are destroying: "I showed four leaves from the jungle to the forest ranger and asked him to identify the trees. He could not. If you do not know, then how is the forest yours?" (Faguaram Gond, Dhamtari district, Chhatisgarh) (WRM Bulletin N° 52, November 2001).

India: Women's response to devastating mining

Mining has devastating impacts on the environment and on people, but it has also specific serious effects on women. Besides causing deforestation and contaminating the earth, rivers and air with toxic waste, mining destroys the private and cultural spaces of women, robbing them of their socialization infrastructure and social role, and all that for the sake of profit of just a handful of huge corporations.

In the case of India, when mining projects displace villages, women are left more unprotected, with even less possibilities of claiming at

least for rehabilitation or compensation, since they have no rights over lands or natural resources. With forests being cut down to accommodate mines and related infrastructure – more often than not failing to comply with the laws and international agreements related to human rights including ancestral and cultural rights of indigenous peoples – women become alienated from their traditional economic roles and lose their right to cultivate their traditional crops or gather forest produce for domestic consumption and medicinal purposes. Plunged into a strange cash economy, they may end up pushed into marginalized forms of labour as maids and servants or into prostitution. Women also have to face previously non-existent social evils like wife-battering, alcoholism, indebtedness, physical and sexual harassment, which become commonplace among mining and mining-impacted communities.

Mining, by its very nature, has no room for women to be employed, so they lose their independence as they depend solely on the wages of the male members. In the cases where they are employed – in the small private sector mines – they are the first to be retrenched, have no work safety measures, are susceptible to serious health hazards which affect their health and ability to bear healthy children. The conditions of work, in the event that they are employed in mining activities, expose the women to sexual exploitation.

Human rights abuses on women miners or women affected by mining have shockingly increased with the entry of big capital and private corporations, with no attention paid by the government on this situation. On the contrary, protests and resistance from the victims have faced violent response from the State.

However, against this background of women's exploitation and alienation from their environment, many small struggles to protect and campaign for the rights of women as communities, workers, protectors and nurturers of natural resources and ecology, are trying to come together and raise a collective voice and action.

Thus, a national alliance has been formed called "mines, minerals & PEOPLE" (mm&P). A major focus of the alliance is the National Network of Women and Mining in India, which seeks to address the problems of women miners and women in communities affected by mining. This

Network is also a member of the International Network of Women and Mining and its coordinating office for the Asia-Pacific region.

The objectives of the network are:

- * Understanding the status of women in mining and affected by mining
- * Work for the rights of women mine-workers and women displaced/ affected by mining
- * Work towards a collective struggle in order to advocate for a gender sensitive mining policy for the country
- * Link up with women's struggles and campaigns nationally and internationally, and particularly in the Asia-Pacific region, to gain strength and solidarity for their struggles
- * Fight for new legal rights for women to gain control over land and other natural resources which have traditionally been male-oriented domains
- * Campaign for the protection of human rights of women displaced by, or working or living in mining areas
- * Fight against employment of girl-child labourers in mines
- * Understand the health problems and hazards of women in mining areas and address these problems
- * Organize the Third International Women and Mining Conference in India (which will be held in October of this year 2004, hosted by mm&P)

The Network assumes the "Pact for Life" "because the earth is our mother and the rivers are our mother's milk. The earth is our life and death. Therefore we demand water for all, protected wells, rivers free from contamination and waste, an earth free from degradation." (WRM Bulletin N° 80, March 2004).

Indonesia: Growing pressure for mining in forests

Mining is one of Indonesia's biggest revenue-earners, but it is also destroying the natural resources on which tens of millions of rural and urban Indonesians depend for their livelihoods and health. These resources include the archipelago's once vast forests which are now being destroyed faster than ever before.

The problems of mining and forest destruction cannot help but be closely intertwined in Indonesia since so much of the country's land surface is (or used to be) forest, and so much of the rock underneath contains commercially valuable minerals.

Forests (including degraded and fragmented forests) now cover less than half the country's total land area of 189 million hectares. These forests are divided into areas which can be exploited (production forests); those which can be converted to other uses such as plantations or rice fields (conversion forests) and areas which must not be exploited (to protect watersheds, provide wildlife sanctuaries etc). This last type includes protection forests (officially 35 million hectares) and conservation forests (19 million hectares).

Meanwhile, mining concessions cover an estimated 47 to 67 million hectares and the total forest area with potential for mining has been estimated as high as 84.7 million ha. Of existing concessions, a staggering 11,400,000 hectares overlap with protection and conservation forests alone, with the biggest overlaps in West Papua, Sumatra and Kalimantan.

Since the new Forestry Act in 1999, open-pit mining has been banned in these forests, putting the exploration and mine development activities of around 150 companies in limbo. Indonesian NGOs, led by mining advocacy network JATAM, have mounted a vigorous campaign to maintain the ban. But there is intense pressure to circumvent it from the international mining industry, pro-industry members of the Jakarta administration and foreign governments. The issue has fuelled a major row between the Forestry Ministry, which wants to maintain protection forest status and other ministries, led by Indonesia's Energy and Mineral Resources Minister, Purnomo Yusgiantoro. This has resulted in the long delay in deciding the fate of mining concessions issued before 1999.

In April 2001, the Forestry Ministry reluctantly announced that six companies could go ahead with mining – in three of these areas the forest boundaries were changed to accommodate them. A decision on twenty two companies was supposed to be due at the end of June, but on June 17th, Purnomo announced that fifteen companies (including 3 of the concessions already mentioned by the forestry ministry) would

be permitted to go ahead subject to presidential agreement. He said investment from the four biggest concessions alone amounted to USD 9 billion. NGOs predict that a pro-mining decision will lead to more conflict with local communities whose lands will be taken for mining, causing more pollution of water courses and more fatal floods and landslides as forest cover is lost.

A decision against forest protection will also be a continuation of a policy which dates back to the early years of former President Suharto's regime. Suharto always favoured the interests of investors (and the prospects of lining his own pockets) over those of ordinary Indonesians who paid the hidden costs of mining for their livelihoods, economy, culture and health.

Many of the powerful industry players profiting during the Suharto era, are those who today complain about the ban on mining in protection forests, about the lack of legal certainty caused by Indonesia's decentralisation programme, and by the state's failure to deal with protesters and illegal miners threatening their operations. They include Rio Tinto, Freeport MacMoran, BHP-Billiton, Newmont, BP and Inco – all major multinationals whose operations have caused conflict with local communities and environmental damage in many countries. What these companies fail to acknowledge is their own role in sustaining a dictatorship based on the forcible plunder of natural resources and theft of land and forests from its people. It is no wonder that, during the brief post-Suharto period when there was a need to make concessions to an angry population, the mining industry lost some of its privileges.

Today, the justification for allowing mining in protection forests, is the need for investment to help Indonesia out of its protracted economic crisis – a move supported by Indonesia's creditors in the international community. But NGOs are sceptical whether revenues from mining could even begin to make up for the long term environmental and social damage that mining brings – even without the corruption which ensures that very little trickles down to communities.

Of course there is also the profit motive – one that strikes a chord with Indonesia's military which depends on extra-budgetary 'business activities' for as much as 75% of its income. Profit also drives a financial

overlap between mining and forests since military business interests span both logging and mining-related activities. They range from contracts to guard large foreign mining operations (handsomely paid by the company concerned), to direct involvement in illegal mining and logging operations in league with corrupt local government officials and entrepreneurs who care nothing for the impact on the forests and on local peoples. Brimob, the Indonesian special forces police, are also involved, especially in guarding company sites and dealing with opposition. In the conflict zones of Aceh and West Papua, where rich forest and mineral resources provide ample opportunities for profits, the military has provoked conflict in order to justify their continued presence there.

Now, profiting from the global anti-terrorism agenda and close relations with President Megawati, the military are asserting greater influence over Indonesian politics. This has severe implications for all Indonesians, who could well see a return to the “security approach” of the Suharto years, where disputes over lands and resources are settled by military intervention. For indigenous peoples and other forest-dwelling communities whose lands contain mineral resources demanded by world markets, the outlook is very bleak. Increased military influence will mean more forced evictions to make way for mines, more destruction of forest resources and more intimidation and violence against protesters. It also means a harder struggle to secure recognition of indigenous peoples’ rights to own and manage their forest lands. (By: Carolyn Marr, WRM Bulletin N° 71, June 2003).

Indonesia: Mounting opposition to mining in protected areas

The “Coalition to oppose mining in Indonesia’s protected areas” has issued a media release to expose how mining activities are encountering strong and mounting opposition at various levels. The Coalition is composed of the following ten groups: JATAM; WALHI-Friends of the Earth; Indonesian Center for Environment Law; WWF Indonesia; Kehati; PELANGI; Forest Watch Indonesia; MPI; POKJA PSDA; PELA.

Reactions at open pit mining in protected forests have been coming from civil society in Sumatra, Kalimantan, Java, Sumbawa Besar (south-

east Indonesia), Sulawesi. These include letters of protest, postcards, demonstrations, declarations and statements by provincial governments, students, academics, indigenous peoples, ordinary Indonesians and by the international community.

It seems that public perception is that things have gone too far with mining activities. That's how the Canadian mining company Placer Dome's plans to mine for gold in the protected forests of South Kalimantan's Meratus Mountains – home of the Dayak peoples and the orangutans – have sparked a passionately worded letter of protest by Indigenous Dayak representatives, a demonstration in the South Kalimantan provincial capital on the 1st of July demanding government action to reject Placer Dome's lobbying and a declaration of the Provincial Government calling on the Indonesian national parliament not to permit mining in the Meratus protected forest. It's high time, since 44% of Dayaks' forests have been degraded in just 12 years!

In Palu, capital of central Sulawesi island, sustained community opposition have included protests directly against Rio Tinto and Newcrest's plans to build a gold mine in the Poboya Protected Forest Park. Actions have yielded statements by both the provincial House of Representatives (2 July 2003) and by Prof Aminuddin Ponulele, Governor of Central Sulawesi, that they will refuse any central government attempts to permit the mine to go ahead. The threat posed by heavy metals, dust and other mine wastes to the Poboya Protected Forest Park and the water supply for 200,000 residents of Palu is too great a risk according to Governor Aminuddin, who was quoted by local paper Radar Palu on 3 July 2003 requesting Rio Tinto / Newcrest's joint venture company PT Citra Palu Minerals to leave Central Sulawesi province.

Even the usually apolitical UNESCO Asia Pacific office in Jakarta (United Nations Educational, Scientific and Cultural Organisation) have appealed to Indonesian parliamentary committees currently considering government plans to mine in protected areas. They sent a letter with specific reference to tiny Gag island in West Papua where BHP Billiton plans to build the biggest nickel mine in the world and dump mine waste into the sea. An IUCN / UNESCO International Workshop held in Hanoi in February 2002 had chosen the Raja Ampat archipelago including Gag Island as one of seven sites to consider for World Heritage listing

from a field of 25 potential sites in Southeast Asia for its high biodiversity: 505 species of coral – which is an extraordinary 64% of all known coral species in the world –, 1,065 fish species – amongst the highest fish diversity in the world. UNESCO's intervention is a blow to BHP Billiton's lobbying to overturn protected forest status and the company's plan to use STD - Submarine (ocean) Tailings (waste) Disposal, despite its claims to have reformed after the Papua New Guinea Ok Tedi disaster. BHP's Ok Tedi mine in Papua New Guinea caused severe, long-lasting pollution of the Fly River, and local communities successfully sued BHP for multi-millions of dollars in damages.

The international community has also reacted. Over 1,100 letters have been sent by individuals and organisations in 43 countries addressed to Indonesian President Megawati and including testimonials such as this from Beth Partin, who heard of US mining company Newmont's push to expand into Indonesia's protected forests: "I live near Denver, Colorado where Newmont is based. In Colorado, we live every day with the damage caused by mining, for example, the Alamosa River was poisoned more than a decade ago by a cyanide leak and after years of cleanup is only beginning to show signs of life."

To date around 6,000 sets of three postcards, one addressed to the House of Representatives, another to the Forestry Department and the third one to the Minister for Mineral Energy and Resources have been signed and sent by ordinary Indonesians as an expression of support for existing environment protections against mining. Student environmentalists have staged protests at the Australian Embassy in anger at Australian and other foreign government lobbying on behalf of mining companies. Protests have also been held at the House of Representatives and the Forestry Department, with more planned. Heads of forestry education at five prestigious universities: Bogor Institute of Agriculture, Gajah Mada University, Mulawarman University, Hasanuddin University and Lampung University Groups, have issued a declaration of opposition to mining in protected areas on 3 July 2003. Students and academics highlighted the total economic contribution made by sustainable forestry and environment protection, which according to Indonesia's national budget, outweighs that of mining, with much more potential untapped. (WRM Bulletin N° 72, July 2003).

Laos: IFC backs Australian gold mine

On 28 February 2002, the International Finance Corporation, the private sector arm of the World Bank, approved a US\$30 million loan to develop a gold mine at Sepon in Savannakhet province in Laos. The mine, which will be the largest mining operation in Laos, is 80 per cent owned by Oxiana Resources, an Australian mining company, and 20 per cent by Rio Tinto.

Construction of the US\$45 million project is due to be completed by the end of 2002. Preliminary works, including upgrading roads and preparations for the gold plant, have already begun at the site and the first gold production from the mine is forecast for December 2002. Oxiana estimates that the gold deposits at Sepon are worth about US\$1 billion.

Rio Tinto started exploration for gold in the area near the Vietnamese border, in the early 1990s. However, Rio Tinto considered the deposits it found to be too small and in August 2000, the company sold 80 per cent of its Lao operations to Oxiana. Oxiana gained the right to explore, develop and extract any mineral resources in a 2,000 square kilometre area in Laos.

The companies have negotiated generous subsidies from the Lao government. For the first two years, Oxiana and Rio Tinto are exempt from corporate tax and employees are exempt from paying income tax. For the next two years, corporate tax will be paid, but at only half the usual rate. As the mine will only operate for seven years, this means that the government will only receive corporate tax at the full rate for three years. Meanwhile, there are no taxes or restraints on repatriation of money from the project. The government has waived duties on imported equipment. In return, the Lao government is to receive 2.5 per cent of the value of the ore mined (but only after Oxiana has subtracted the costs of selling, transport, smelting, refining and other treatment costs). The government also has an option to buy a 10 per cent share in the mine.

Oxiana and Rio Tinto plan to use the profits from the gold mine to develop a US\$100 million copper mine at nearby Khanong. The companies

estimate that there could be US\$ 2 billion worth of copper in Khanong. Although the copper mine is described in project documents as Phase 2 of the operation, IFC has approved its loan without studies of the combined impact of both the gold and copper mines.

Villagers' forests, farmland and swiddens will be cleared to make way for the mines. The Sepon gold mine will cover an area of 27.6 square kilometres, straddling the Nam Kok river, a tributary of the Mekong. Fisheries will be damaged. Huge volumes of waste earth and rock will be dumped. The local water table will drop. Cyanide, a chemical which is extremely toxic to fish, wildlife, plants and human beings, will be used to extract gold from ore. Leaks of cyanide from mining operations are common.

To make way for the mine, two villages with a total population of 120 people, will be moved. The mine will also take up land within other village's territory. The project's Resettlement Action Plan, acknowledges that in these villages, "relocation might eventually be necessary" and adds that "one other village, not currently listed for relocation, Ban Vieng (25 households), may require relocation."

Oxiana commissioned NSR Environmental Consultants of Australia and Earth Systems Lao to carry out an Environmental and Social Impact Assessment, which was completed in November 2001. IFC describes the project's environmental and social impact assessment as "detailed," yet the consultants do not know whether three endangered species of fish live in the Nam Kok River. They also do not seem to know what the impact of the mine would be on these species. The consultants report that "should these species actually occur," the impacts could range from "severe" to "very minor." Based on this scant information, IFC decided to back the project.

This support primarily benefits the companies developing the project, Rio Tinto and Oxiana, while putting local communities' livelihoods and environment at risk.

Rio Tinto is the world's largest mining corporation, with over 60 mines and processing plants in more than 40 countries. The company has an appalling record of human rights violations and of destruction of

communities and their lands, rivers and forests. A 1998 motion to the UK Parliament described Rio Tinto as “probably the most uncaring and ruthless company in the world.”

Oxiana Resources was formed by Owen Hegarty, a former executive at Rio Tinto. Based in Melbourne, Oxiana is a gold and copper mining company. As well as the Sepon project, Oxiana owns Dalton Pacific Resources in the Philippines, with six gold and copper mine projects in Northern Luzon. The company also owns shares in mines in Cyprus and Australia.

IFC hopes that its involvement in the Sepon gold mine will encourage further mining projects in Laos: “The investment in the Project will help to increase confidence of the investment community in mining and other sectors of the economy.” The World Bank Group’s mission is supposedly to alleviate poverty, but IFC appears more concerned with helping the rich get richer. (By: Chris Lang, WRM Bulletin N° 57, April 2002).

Philippines: Growing opposition against the Sumitomo Corp. in Palawan

Even though in 1992 the local government on the island of Palawan cancelled the concessions granted to logging companies in an attempt to curb the destruction and degradation of the country’s forests, it did not halt the threat to the integrity of the indigenous communities in the Philippines. There are also mining companies endeavouring to carry out their business in spite of the opposition of local communities and warnings about the environmental damage their activities will cause. The project for the installation of a multi-million dollar nickel refinery, financed 90% by the giant Japanese mining company, Sumitomo Metal Mining Corp and the remaining 10% by the Rio Tuba Nickel Mining Corp. (RTNMC) – a company belonging to the brothers Ronaldo and Manuel Zamora that has been operating for years in the region – will extract 10,000 tonnes of nickel. The production will take place over a 20-year period, starting this year and increasing in successive years.

Exploitation activities in Rio Tuba are located in the South Eastern region of Palawan Island. With its over one thousand islands and islets rich in tropical flora and fauna scattered over 1.5 million hectares,

Palawan is the largest province in the Philippines and the home of various indigenous groups, among which the Tagbunau, Pala'wan, Tau't bato and Batak.

The indigenous population of Rio Tuba has organised itself and joined with other community members to defend their lands, their health and their way of life. The toxins from mining operations have visibly affected water sources because the dams built to contain the wastes overflow during the rainy season, causing the rivers to become silted up. Skin and respiratory problems suffered by the inhabitants of the communities are attributed to the dust and waste coming from a lateral mine gallery. The proposed project will be another blow to hundreds of fisher people, farmers and indigenous peoples whose very survival depends on a healthy environment.

In 1991, the Palawan NGO Network, Inc. (PNNI) was set up, comprising social and non-governmental organisations from the province, and on 3 December 2002 on its behalf, the Environmental Legal Assistance Centre (ELAC) with the support of the international organisation Environmental Law Alliance Worldwide (ELAW), submitted a document to the Environmental Management Bureau (EMB) to prevent the endorsement of the construction of a multi-million dollar nickel refinery complex.

This document makes a critical analysis of the ecological, legal and political impacts of the mining project, pointing out that it violates several of the country's laws, policies and directives. The project is located and affects areas within the ancestral domains of the Pala'wan community. Over 30 families of this community who inhabit the territory are struggling to reaffirm their ancestral rights to the land, which enables them to maintain their means of livelihood and are fearful that the project will use a limestone outcrop in Sitio Gutok, considered a sacred site.

For all these reasons, ELAC argues that the Environmental Compliance Certificate (ECC) should not be granted to this mining project. It also denounces the fact that the evident community opposition shows that the company does not have community consent. This involves a violation of the Indigenous Rights Law, which requires that the company should obtain "prior free and informed consent" following an open presentation of the intentions and scope of the activity proposed, to enable the community to have a clear understanding of the situation.

According to the report that ELAC submitted to the Environmental Management Bureau (EMB), RTNMC used deceitful tactics to obtain the signatures of the indigenous leaders and of other groups, which it later attached to its environmental impact declaration. The community inhabitants and various other groups such as ELAC have publicly denounced the deceitful ways used by the company to achieve support: "many were asked to sign an attendance sheet, and found out later it was a letter supporting the proposed HPP project."

On 10 July 2001, the Secretary of the Department of Environment and Natural Resources, Heherson Alvarez granted an environmental certificate to the project, certifying that it would not cause considerable negative impacts and that the submitting company had observed all the requirements of the Environmental Impact Assessment system. This certificate was later endorsed by the Palawan Council for Sustainable Development, an administrative body regulating environmental projects in the province.

This sentence goes against the well-founded fears that a major part of the project will be carried out in a zone where activities are not permitted, including a coastal area with coral reefs. The experts studying the environmental impact declaration submitted by RTNMC found that some details of the project were missing. Meanwhile, the company did not duly respond to the questions on how they were going to prevent infiltration of sulphur and other dangerous effluents from the plant.

In September 2002, ELAC met with Senator Robert Jaworski, which led to him to adopt a senatorial resolution questioning the environmental certificate. Subsequently there was another resolution regarding this subject. As a result, last December the senate carried out an investigation in which NGOs, indigenous communities, Muslim and farmer representatives from Palawan submitted their case. The senate promised to continue with the investigation and the people are now waiting that this body forcefully intervenes by taking up defence of the environment and of the inhabitants of Palawan. (WRM Bulletin N° 67, February 2003).

Philippines: Opposition against mining policy

It is estimated that already 40% of the Philippines territory has been given away under the form of concessions to multinational mining

companies. However, this process has not happened without opposition. From the Cordillera region in northern Philippines to the South Eastern region of the Palawan Island, the Subanen, Tagbunau, Pala'wan, Tau't bato and Batak indigenous groups have struggled to defend their territories from the pervasive impacts of mining.

In 2003, President Gloria Macapagal-Arroyo started a policy of promotion of mining in the country. Within that framework, a national process of consultations was initiated in February in cooperation with the USAID, which has faced strong opposition from several civil society groups gathered in the National Mining Conference (NMC). They have staged a nationwide “fax barrage” on December 3, to express unified opposition to the National Minerals Policy (NMP) Framework and the Philippine Mining Act of 1995.

As they put it, their opposition is based on the following grounds:

“a. The law is based on an export-oriented economic framework, a policy which remains as a key factor in driving the country’s economy to bankruptcy.

b. The law has opened our mineral wealth to full exploitation by foreign investors, thus surrendering our national patrimony and sovereignty to corporate entities who have the control of capital and technical know-how.

c. The law is not based on Philippine realities. We are an archipelago with fragile ecosystems and the areas where minerals are located are inhabited mainly by indigenous peoples.

d. The law does not guarantee the recognition of the rights of indigenous peoples to their territories and their right of self-determination.

e. The law further distorts the development of our economy which could be achieved primarily by strengthening agriculture and undertaking national industrialization instead of just attracting foreign investments for extractive industries like mining.”

In this light, they present the following demands:

“1. Cancel all mining permits already issued and to declare a moratorium on large scale mining activities.

2. Formulate a new National Minerals Policy which respects the integrity of the Creation, truly adheres to the principles of sustainable development, clearly defines the role of the mining industry in strengthening the country’s economy based on supporting agricultural development and national industrialization, ensure that it respects basic human rights and strengthens democratic processes.

3. Legislate a new mining code based on this new National Minerals Policy.

4. For the MGB [Mines and Geosciences Bureau] improve on their practice of democratic processes: to go through a very thorough process of consultations to ensure that those who have been and will be affected by mining operations are fully consulted, allow the expression of people’s sentiments and demands; and that results of consultation be disseminated for comments. We also seek the formation of an inter-sectoral body that will study the impact of mining policies.

5. Recognize and respect indigenous peoples right to land and to self-determination. This should not be diminished when securing permission to access indigenous peoples territories to implement development projects such as mining.

6. For the resolution of outstanding issues of mining-affected communities, (i.e. the clean up of Mogpog and Boac Rivers, conflict between the Subanon peoples in Siocon and TVI, the rights of small scale miners in Diwalwal, Lepanto’s pollution of the Abra river, the rehabilitation of open pit mining areas of Benguet Corporation, the cry of the people of Didipio for a people’s initiative, the protest of the people against Western Mining Corporation etc.) instead of rushing the approval of a clearly pro-mines industry National Minerals Policy.

7. Conduct a social and environmental impact assessment of almost 8 years of implementation of RA [Republic Act] 7942 and its IRR [Implementing Rules and Regulations].”

They claim: "Let the voices of the people be heard. The strength of a government can only be ensured if it responds to the basic aspirations and demands of the majority who still remain marginalized and oppressed." (WRM Bulletin N° 77, December 2003).

Thailand: Deadly lead mines poisoning ethnic communities

Lead mines are killing ethnic communities and contaminating water sources in the Thung Yai Naresuan Wildlife Sanctuary complex, a World Heritage site, in eastern Thailand.

Several Karen ethnic villagers particularly at Lower Klity village have already died from lead contamination while many dozens of people particularly women and children are suffering from acute lead poisoning from drinking, fishing and washing in the Klity stream near the village. Nearly 100 cattle have died and the villagers cannot drink from the stream because it makes them sick. Some forest rangers in Thung Yai believe that wildlife is also suffering as they have seen deer and mousedeer dying in the same way as the cattle.

The lead mines that have been operating over the last 40 years are a major threat to western Thailand's forest ecosystem being located right in the middle of a large tract of pristine, tropical forest complex that includes the Thung Yai Naresuan Wildlife Sanctuary whose unique ecology and biodiversity earned it a listing as a World Heritage site.

Although the lead mines are located outside Thung Yai Naresuan Sanctuary, the effects of contamination from toxic discharge is spreading far beyond the mine concession areas. Untreated waste discharge containing lead waste is contaminating the sanctuary's water resources and wildlife habitats. Mineral-transporting trucks disturb the wildlife by regularly plying through the sanctuary.

At least six mines run along the sanctuary's borders: to the north in Kanchanaburi province are Phu Jue, Phu Mong and Kao Lee mines, on the southern side are the Klity, Bo Ngam, Kanchanaburi Exploration and Mining Co., Ltd. (KEMCO or Song Thor) and a number of other small and large-scale lead mines together with lead separation plants. Bhol and Son Co. Ltd or its subsidiaries, KEMCO and Lead Concentrate

Co., Ltd, own most of the mines. The Klity mine operator, Bhol and Son Co, has links to a powerful local village leader and a politician in Thailand's Democrat Party.

In April 1998, villagers in Lower Klity village, downstream from Klity mine and lead separation plant, filed a complaint with Thailand's Pollution Control Department. The villagers protested that wastewater from the mine has polluted their only water resource, the Klity stream. The villagers' cattle and chickens fell ill or died after drinking water from the stream.

A subsequent investigation by the department revealed that the mine failed to treat its wastewater and has illegally dumped it into the stream. An early study in 1995 by the Department of Mineral Resources found that the mine excavated sediment from its wastewater pond and dumped it outside the concession area. The department warned that the possibly lead-laden wastes could be washed away by rainfall and contaminate waterways and aquifer in the area.

Following the villagers' complaints, Kanchanaburi's mineral resource office ordered the Klity mine temporarily closed until its wastewater facilities were improved. The Pollution Control Department dispatched a team to check the water and sediment in the Huai Klity area.

Every one of Klity Lang's 221 inhabitants suffers from lead poisoning by drinking water from the Klity stream. "The whole village is dying," says Yasoer Nasuansuwan, the deputy village chief, who suffers from chronic fatigue and muscle pain.

Yasoer said villagers began suspecting something was wrong a decade ago when everybody started suffering from the same symptoms: muscle and joint pain, fatigue, loss of appetite, chronic headaches, swelling and blindness.

For Karen ethnic communities, the loss of their subsistence resources has been slowly wiped out. Fish now float on the surface belly up. Shellfish and shrimp, which used to be in abundance, have almost disappeared completely. "There were so many fish in the past that we would start boiling rice before setting out to fish. Before the rice was done, we would have enough fish for a meal. Now we could sit all day

and not hook even one fish,” Mr. Yasoer said. The villagers have also lost their livestock to lead poisoning. More than 50 cattle that drank from the stream or ate grass growing near the water's edge got sick and died. A few years back, a whole flock of ducks dropped dead after entering the stream.

According to the Mineral Resources Department's 1995 study, lead contamination in and around the mining areas is very high with tens of thousands of tonnes of lead still settled in the bottom of Klity stream.

For instance, the amount of lead in sediment in Klity stream, downstream from the mine, is 165,720 to 552,380 ppm (parts per million). Thailand's safety standard is 200 ppm. The Pollution Control Department said lead in the bloodstream of 39 children in the Klity village was found to be nearly twice the level sufficient to cause permanent brain damage. Medical tests in 1999 revealed that villagers' blood contained 110 times the lead found in an average person. Since 70 percent of lead contaminated water can enter the food chain, water from the Klity stream is not only undrinkable, it cannot be used even to water plants. The accumulation of lead in the human body, even at close-to-zero amounts, can, in the long run, damage brain cells and the nervous system.

In 1998, the government ordered the closure of the Klity mine and its ore cleaning plant and fined the company about US\$47. In April 1998, the company gave about US\$23,000 to the villagers in compensation, which activists and victims dismiss as inadequate and an evasion of responsibility.

Thailand's environmentalists have protested that the temporary suspension of a single mine falls short of ensuring the long-term health of Thung Yai Naresuan forest area. Narong Jangkamol, a researcher at the Bangkok-based environmental group Seub Nakhasathien Foundation, pointed out that sink holes, that are a typical feature of the province's limestone topography, are abundant in the mining areas so that wastewater in sedimentation ponds easily leaks out into surface and underground water resources expanding the area of lead contamination.

The voluntary group, Karen Studies and Development Center, announced that it has begun gathering evidence against the company for a planned lawsuit. It says closing the mine was not enough and the company should remove the polluted silt, which it had dredged from the creek and buried right on the bank.

“Klity’s days are numbered unless action is taken immediately. Years of poisoning is taking its toll on the villagers’ genetics,” said Surapong Kongchantuk, director of the Karen Studies and Development Center.

All children born during the last six years have suffering from mental disabilities. They have stunted growth and suffer muscle coordination problems. Two girls were born without vaginas while others have abnormally big heads.

“Never before have I seen such deformities,” said Surapong, who has worked with the Karen communities for over 20 years.

Thirty-year-old Manumia Thongpaphumcharerd says she started limping in 1993 and often found herself dropping into a dream world. “It was like everything was blurred and I was losing myself all the time,” said the mother of five children, four of whom have motor skill problems. Her father and younger brother are among the 23 people who have died in the past eight years. Thirteen of the dead were children. Doctors said the deaths were caused by kidney failure, the result of lead poisoning.

But the government has not offered any substantial remedial or other assistance to the affected villagers. The villagers have received medicines only once from a donation by a philanthropist. Surapong’s group and others point to the mine owner’s political connections, which for a long time prevented the company from being investigated.

The Thai Karens in Western Thailand Group, a network of mostly forest-dwelling ethnic Karens in western Thailand, have declared that the Klity lead mine must be shut down. The group is mobilizing support from environmental groups and Karens in other parts of the country in order to get the Klity mine closed.

“Every time the villagers complain, the mine manager promises to turn over a new leaf but they never live up to their words. The only way to

solve the problem once and for all is to stop the mine,” said the network’s secretary Wuth Boonlert.

The Thai Karens network is also urging health authorities to examine the health of Lower Klity villagers. Prolonged use of lead contaminated water damages people’s central nervous systems. The Klity stream flows into Kwaie Yai River in the eastern region of Thailand. This means that villagers downstream in Kanchanaburi and Ratchaburi provinces are also subject to health damage.

The villagers have also refused to be relocated. “Our ancestors tried all other areas in the forest before deciding on this place. We can’t move,” Yasoer said. (By: Noel Rajesh, WRM Bulletin N° 71, June 2003).

Vietnam: Unique biodiversity threatened by World Bank-funded cement plant

Vietnam’s karst landscapes are world renowned. Perhaps the country’s most famous limestone scenery is at Ha Long Bay, which has been declared a World Heritage Site. In 1962, the karst landscape at Cuc Phung in northern Vietnam became the country’s first national park.

As well as producing spectacular scenery, limestone is the main raw material for cement manufacture and many karst landscapes are under threat. Vietnam is no exception.

In 1998, a new cement plant called Morning Star Cement, started operation in Hon Chong, in Kien Giang province in the southwest of Vietnam, near the Cambodian border. The project is a joint venture between a Swiss cement company, Holcim (65%), and Vietnam’s Ha Tien I Cement Company (35%). Morning Star has since been renamed as Holcim (Vietnam) Ltd. The International Finance Corporation (IFC, the private sector arm of the World Bank) provided a US\$30 million loan to build the 1.7 million tonnes a year cement plant.

Holcim will quarry three limestone mountains near to its cement plant for raw material to produce cement. According to the company’s website, Holcim Vietnam aims “to achieve first class environmental performance of our operation and assets. Holcim Vietnam recognizes

that raw materials, soil, water and air are finite resources which we must handle carefully and responsibly.”

Yet the environmental impact assessment for the project made almost no mention of the impact on biodiversity caused by Holcim’s limestone quarries. The EIA, produced in 1995 by the Environmental Protection Centre in Ho Chi Minh City, simply reported that “Very little wildlife has been seen in the area – only a few monkeys and there is a remarkable lack of birdlife. The EIA did not identify any protected or endangered species of wild life in the area.”

According to the Karst Waters Institute, a US-based non-profit organisation, the Ha Tien-Hon Chong Karst has a “unique compilation of plant and animal species due in large part to its geographical isolation.” The area is habitat to bats, reptiles, birds and small animals. Endangered leaf monkeys have also been reported in the area.

In 1997, the Institute reported that “Protests by locals, provincial authorities and scientists from Ho Chi Minh University have, so far, all been ignored by the Hanoi government” and added that Holcim “has proved especially insensitive to environmental issues involving karst.” The Institute included the karst landscape of Ha Tien - Hon Chong, where Holcim is operating, in its 1998 list of the ten most endangered karst landscapes in the world.

In October 1999, the World Conservation Union (IUCN) Working Group on Caves and Karst reported in its newsletter that in the late 1990s, “The World Bank became concerned about the impact on both biodiversity and cultural heritage which was occurring as a result of limestone quarrying for cement manufacture in the East Asia region.” The Bank hired Dr Jaap Vermeulen of the Natural History Museum, Leiden in the Netherlands to “establish a process of inquiry.”

In January 1999, the World Bank and IUCN organised a workshop on karst in Bangkok, and in September the Bank published the result of Vermeulen’s work. Vermeulen and co-author Tony Witten (of the World Bank) confirmed that the EIA of Holcim’s operations “did not review the biodiversity of the limestone hills in any detail.”

The authors commented cautiously that “It was considered prudent to revisit the question of the biodiversity of these limestone hills to determine if additional management interventions are needed in this particular case, and to examine how the IFC and potential future sponsors should address these issues more generally.”

Using Australian Trust Funds, IFC hired Sinclair Knight Merz, an Australian-based consulting firm, to produce a “study of the limestone resources in southwestern Vietnam” which would “delineate their potential uses for limestone production, biodiversity conservation, forestry production (timber and nontimber), tourism, groundwater recharge, and so forth,” according to Vermeulen and Witten.

Four years later, this study is not available. In response to a request for the study in March last year, Richard Caines, Coordinator for East Asia and Pacific at IFC, replied, “We have only recently received a final draft. Once the report has been reviewed and approved, our intention is to make it publicly available.”

In June 2003, Caines stated, “The various issues which slowed its progress related to team selection and gaining the appropriate approvals for the study to be undertaken. These approvals needed to be secured from the funders, IFC management, Holcim management and various Vietnamese government Departments/People’s Committees. Consensus decision making amongst such entities is not a fast-track process, I’m afraid.” He added that “the report has not been publicly released.”

A source close to the study reported that the Vietnamese Army ordered that the limestone hills along the Cambodian border be excluded from the Sinclair Knight Merz study. Shortly afterwards, the Kien Giang Provincial Government refused to allow the study to continue.

IFC is now working with Holcim and the International Crane Foundation on a project entitled “Sustainable Development and Biodiversity Conservation of Wetlands in the Ha Tien Plain.” In 1998, the endangered Eastern Sarus Crane started to use areas of grassland near Hon Chong as an early season feeding ground. The project aims to preserve these grassland areas.

Of course, this biodiversity project will in no way affect Holcim's quarrying activities. IFC and International Crane Foundation are allowing Holcim to greenwash its activities by deflecting attention from Holcim's quarries. By not insisting on an adequate EIA, IFC is in breach of the World Bank's safeguard policies. Meanwhile, Holcim continues to quarry 4,000 tonnes of limestone a day from the mountains near Hon Chong. (By: Chris Lang, WRM Bulletin N° 71, June 2003).

CENTRAL AMERICA

Costa Rica: Canadian mining company attempts to silence opposition

Once again, a foreign company is the cause of conflicts for the inhabitants of the Province of Puntarenas. The Río Minerales company, a subsidiary of the transnational Canadian mining company Wheaton River Minerals Ltd. was granted environmental permits to establish an open cast gold mine at Bellavista de Miramar, for the extraction of 60 thousand ounces of gold per year over a 7 year period, by means of leaching in ponds, using cyanide.

In order to develop this process, the beds need to cover large areas near the surface, resulting in gigantic craters that can be as large as 150 hectares and over 500 metres deep. The consequences are: the production of large amounts of solid and liquid wastes, impacts on neighbouring peoples and the complete transformation of the landscape together with severe modifications to the morphology of the land.

Knowing the serious impacts caused by open cast mining, Marta Ligia Blanco Rodríguez, teacher and community counsellor from Montes de Oca, province of Puntarenas, declared herself against the Río Minerales company activities, as did the mayor, Roberto Aguilar and the other community leaders. For Marta Blanco, this project compromises their source of water and the right to a sustainable life in her canton. As a result of her opposition, she is presently facing legal action lodged by the mining company. The power of the Canadian company seems to be so great that in September 1999 it was exempt from carrying out an

Environmental Impact Assessment (with the excuse that an assessment had been approved in 1986), and it was only required to submit an Environmental Management Plan.

According to the inhabitants of the zone, the action against Marta Blanco is clearly meant to intimidate and reflects the power of the transnational companies, responding to vested interests in mining exploitation, interests that are of course not those of the Montes de Oca community. This statement is confirmed when Rio Minerales lodged the action for “defamation of a legal person” sustaining that the counsellor has attributed responsibility to the company for “logging thousands of trees,” an accusation the company rejects, because it has an excavating permit.

The company also alleges that the policy of Marta Blanco and her companions from the Council is “to oppose all projects.” For her part, counsellor Blanco has the support of the community neighbours who do not want an open cast mine to be established. During an attempt at conciliation, the mining company wanted the counsellor to resign to avoid her and the Municipal Council continuing their opposition to the mine being opened. This failed as it showed to be a clear attempt at limiting the municipal representatives’ freedom of expression.

Sonia Torres, a neighbour at Miramar, stated that this case is framed within the policies transnational companies follow with people in any part of the world who oppose their interests. “Four years ago I was also sentenced by this same court for not having given in to intimidation by the employees of Posesiones Gran Galaxie S.A., a subsidiary company of the Canadian mining company Rayrock, the owner of the Bellavista mining project at that time.”

It seems that these companies have got used to bringing to court those who exercise freedom of expression in defence of the environment, health and life in Costa Rica. Is it not time for the government of this country, apparently so concerned by environmental issues, to place itself on the side of those who are defending the environment, and to stop the expansion of these destructive mining activities? (WRM Bulletin N° 49, August 2001).

Costa Rica: The people say YES to life, NO to mining

The inhabitants of the northern zone of Costa Rica, gathered together in the Northern Front for Opposition to Mining (Frente Norte de Oposición a la Minería) are opposed to the Crucitas Mining project for open-cast gold mining and have organised a march in San Carlos, under the slogan of “Yes to life, No to Mining.” They demand the suspension of mining projects and promotion of a sustainable, eco-touristic and agro-industrial development for the frontier communities that so far have been neglected.

The Crucitas Mining Project has its background in the initial request for an exploration permit submitted on 30 August, 1991 by Maurice Eugene Coates, a Canadian geologist, representing the Vientos de Abangares S.A. company. In 1995, it was certified that the entire stock of this company belonged to the Placer Dome society of Costa Rica, whose chairman at the time was William Earl Threlked, an American geologist, and the treasurer was Robert Pease, a geologist of Canadian origin. In turn, the entire stock of Placer Dome Costa Rica, S.A. belonged to Placer Dome Latin America Ltd, with William Earl Threlked (U.S. national) and Robert Bruce Pease (Canadian national) holding power of attorney. In 1998, Placer Dome Latin America launched a process for the sale of its project in Costa Rica, through the sale of Placer Dome, Costa Rica shares. This operation was concluded in 1999 in favour of the Canadian company Lyon Lake Mines Ltd. that changed its firm’s name to Industrias Infinito Sociedad Anónoma (IISA).

On 13 March, IISA submitted the Environmental Impact Assessment for this Crucitas Mining Project to the National Environmental Technical Secretariat (SETENA). The fact that this study was submitted to SETENA – in the framework of communal and national opposition and the opposition of the two candidates presently contending the presidency of the country – was understood as a *manoeuvre* to advance the process as much as possible, as the company is aware that opposition is total and that the project is only supported by the present government. As proof of this, it is to be noted that the Ministry of Environment and Energy (MINAE) granted the exploitation concession on 17 December 2001, through Resolution # R-578-2001-MINAE, in a completely undercover manner.

The mining rights in the area – covering 305.9 hectares – are valid for a period of 10 years as from 16 January 2002 and the technology used will be open-cast mining with cyanide leaching, presently prohibited in many parts of the world due to the wide-spread contamination it involves. Furthermore, the degradation that this activity will cause to the local environment – particularly due to the use of cyanide – also requires the logging of a wide forest area.

Aware of the ecological and social damage that this activity will cause in the region, the community authorities have declared that “it is not possible to allow the destruction of our flora and fauna in exchange for a pittance that, at the end of the day, will be all that is left to our country.”

In the framework of investment-benefit indexes, total opening up of the market, unrestricted sale of natural resources, privatisation and ‘foreignisation’ of companies, there is little room left for environmental and social considerations. But the Costa Rican people who suffer from these policies, know that in defending their nature they are defending their lives. And they are doing just that. (WRM Bulletin N° 56, March 2002).

Costa Rica: Hopeful resolution on moratorium to mining and oil

On 11 March, the Plenary Commission of the Costa Rican National Environmental Technical Secretariat (Secretaría Técnica Nacional Ambiental - SETENA) flatly rejected the Environmental Impact Assessment submitted by the Industrias Infinito S.A. (IISA) Company on the Crucitas Mining Project, located in the area of the Mining Exploitation Concession granted by the Ministry of Environment and Energy (MINAE) during the previous government.

The MINAE granted the exploitation concession on 17 December 2001, through Resolution R-578-2001-MINAE. This resolution was granted under complete reserve. The decree was published and made known to the public on 30 January 2002, two days before the elections, making it practically impossible to lodge an appeal. However, the communities from the north of Costa Rica reacted and on 22 March 2002 held major demonstrations repudiating the decision and making it clear that they would not allow such a noxious activity to take place.

The Crucitas Mining Project has its background in the Mining Exploration Permit granted – also in an underhand way – on 1st October 1993. Based on such a permit, exploration works were carried out over a five-year period, resulting in the discovery of an important gold deposit. On 13 December 1999, the request for a Mining Exploitation Concession was submitted to the Geology and Mines Office. This request was given administrative file number 2594. Mining rights in the area considered by the Concession are valid for a period of 10 years as from 16 January 2002.

During the recent resolution, SETENA based its rejection on legal reasons such as the lack of juridical certificate and the introduction of changes in land use. Among the technical aspects addressed was the fact that the area of influence is badly defined and that for SETENA it should be located in the sub-basin of the San Juan River. From a social standpoint, it should have been foreseen that the situation of poverty generates the appearance of new populations and that the conflicts that were provoked in the previous attempt at exploration were not taken into account. The tourist and archaeological importance of the zone is an important social aspect that has also been overlooked. According to SETENA, an element that requires rigorous attention and that has been treated lightly refers to the use and management of toxic substances, such as cyanide. There is no Closure Plan and the contingency plans are deficient.

The resolution also questions the fact that the studies on which the EIA are based, are outdated, field assessment is insufficient and data on floristic composition have been omitted. According to the SETENA plenary, the elimination of 108 hectares of primary forest and 177 hectares of secondary forest will promote the disappearance of endangered species.

Another important aspect refers to international commitments that the country has taken on, together with the other Central American countries, regarding joint assessment of trans-boundary projects. In this respect, the EIA has made no evaluation of the effects on the major watershed of the San Juan River, the border zone of Costa Rica with the greatest diplomatic, legal and migratory conflicts. Furthermore, the resolution makes it clear that the area of influence should have included Nicaraguan territory.

OILWATCH Costa Rica has assessed this resolution as a step forward towards the moratorium: "We are happy with this resolution and hope that the possibility of opening gold mining in Miramar de Puntarenas will be closed and that SETENA flatly rejects oil exploration in the Northern Zone. With this and the annulment of the hydrocarbon law and a moratorium law, Costa Rica will be internationally at the vanguard," stated Mauricio Álvarez, OILWATCH resource person. (WRM Bulletin N° 68, March 2003).

Costa Rica: Nicoya Gulf and drinking water in the region endangered by gold-mining

Mining is one of the activities that international allocation of labour has imposed on the countries of the South, rich in natural resources. However, in no case has it led to the general welfare of the country; on the contrary, it could be considered a curse.

In Costa Rica, the Gold-mining Opposition Committee has been active in denouncing the numerous and devastating impacts of mining, related to mining in itself, the elimination of mine waste, transportation of the mineral and its processing, often involving or producing hazardous materials.

On 30 January 2001, in spite of strong opposition on the part of the communities and the municipality, the Government of Costa Rica authorized the Canadian company, Glencairn to carry out an open cast mining project with leaching (that is to say, the application of chemicals, in this case, cyanide, to filter and separate the metal from the other minerals). The project expects to extract 560 thousand ounces of gold in a little less than seven years, by-producing 15 million tonnes of waste.

The Glencairn mine was opened at 14 kilometres from the Nicoya Gulf, a very beautiful marine estuary, with rocky islands and cliffs, an extensive mangrove habitat and exceptionally high biodiversity. The Gulf has four islands that have been designated Wildlife Refuges, and the Palo Verde National Park, Costa Rica's most important wetland, hosting a wide variety of endangered fauna. There are also 5 thousand artisan fisher-people whose livelihood depends on this Gulf.

Open cast mines generally imply the elimination of the vegetation in the area, widespread dynamiting and the removal of rocks and the material above the ore until the bed is reached, and then this is again dynamited to obtain smaller pieces. These activities may have caused the recent landslides in the Ciruelas River, in the zone near the mine, an area already prone to landslides mainly during the period of flooding. The added danger is that this cyanide-contaminated earth, on reaching the river will compromise the drinking water supply to the city of Miramar and the rich estuary of the Nicoya Gulf.

Based on the complaints lodged by the Gold-mining Opposition Committee, the Association of Ecological Community Users of the Nicoya Gulf (Asociación de Comunidades Ecologistas Usuarias del Golfo de Nicoya – CEUS del Golfo) has requested the National Environmental Technical Secretariat (Secretaría Técnica Nacional del Ambiente – SETENA) to investigate the landslides, that could either be the result of the impact of the building works on the fragile terrain of the region or of the removal of earth to do the building works. They have also urged people to write to the company and to the Government of Costa Rica asking them to “stop gold-mining in Miramar because you do not do business destroying the water and the Nicoya Gulf.” (WRM Bulletin N° 80, March 2004).

Honduras: All that glitters is not gold

The sun sets on the Siria Valley; the temperature is over 38 degrees centigrade. It was always hot here, it is a valley, but never before had the heat reached the levels it does nowadays. The rivers and streams are only a memory, now they look like tracks, deserted and dusty because of deforestation and the extraction of thousands of metres of sand.

These are just the beginning of the effects caused by the Mina San Martin mining exploitation in the municipality of San Ignacio, located at some 70 kilometres to the north of the capital city. Here in this municipality, in the village of Palos Ralos, an enormous gold bed has been found, ranging from between 600 thousand and one million ounces of this precious metal.

In the year 2001 alone, the Entre Mares Company mined more than one hundred thousand ounces of gold, using 6 thousand tonnes of sodium cyanide, that is to say 16.5 tonnes a day, processing 18 thousand tonnes of waste per day. According to this data, it can be estimated that the transnational company made an income of over 25 million dollars over that period.

The deafening sound of the machines crushing stones can be heard, and a thick cloud of dust rises several metres high. A wire fence of over a kilometre long surrounds the San Martin Mine, with barbed wire coils for security.

Security inside the company is very strict. Armed guards are to be found in all the sectors of the plant, guaranteeing the normality required by the Entre Mares executives. Entre Mares is a subsidiary of the transnational company Glamis Gold Ltd., based in Reno, Nevada, United States of America, which has a concession to exploit the San Martin Mine.

Large and powerful machines circulate inside the plant, and out in the open the heap of material leached with cyanide may be observed. The red colour of the earth predominates. The village of Palo Ralo used to have a mountain, now it no longer exists. There are no trees left, no life, only the memory of a mountain that once was.

The Siria Valley has changed, it will never be the same again. Some 7 thousand trees were felled and many more are destined to the same fate. The water sources are becoming depleted and eventually, no living being will be able to survive in the desert environment of this zone, thanks to a mining company and to the State authorities, such as the Natural Resources and Environment Secretariat that has endorsed the existing ecological disaster.

When it arrived in Honduras, the Entre Mares Company brought with it a whole bunch of illusions for the valley dwellers, filling many of them with hope, telling them that the village would become prosperous and earn enough money to solve its economic problems.

However, this did not happen. Two years after the start of operations, the promised development cannot be seen anywhere, the benefits are

minute compared to the mass devastation of forests and water sources to extract gold.

Adin Escoto, who comes from San Ignacio and drives a heavy vehicle, told us that two years ago he filled in an employment form to get a job, but they have still not given him a chance to work for the mining company. Escoto emphasized, "When they came, they promised that there would be employment for many of us. I prefer to work here because I was born here and my family lives here, but I work in Olancho for a logging company and only come to visit the village."

He also stressed that the mining company has not fulfilled the promises it made to the people of San Ignacio. "They said that here there would be paved streets and they are still the same, they promised jobs and there are only some for a few people, mainly from other places, and they have damaged the environment," stated Escoto.

A doctor, Juan Almendares Bonilla, former rector of the National Autonomous University of Honduras, a university professor and eminent environmentalist, explained that opencast mining is a technique that consists of affecting the surface of the ground, including the forests and removing daily thousands of tonnes of soil and stones to extract gold, which is to be found in microscopic particles.

"The opencast technique causes the release of highly toxic heavy metals into the environment and this will increase ecological deterioration and diseases," he told us with concern.

The environmentalist explained that this method is used by the mining company because the gold is to be found in microscopic particles and not in veins or concentrated in one place. For this reason, it cannot be removed by underground methods (tunnels). With this method, the company removes some 18 thousand tonnes of earth every day to extract the mineral, leaching the raw material with cyanide and using thousands of litres of water.

"The company cut down thousands of trees during the building operations, it contaminated the lungs of the local population with dust and now it is leaving them without water," lamented Almendares, while criticising the authorities who do nothing to stop this destruction.

According to Almeyda, this method is the most harmful one for the environment and for human beings, firstly because of the destruction of the flora, the ecological imbalance caused to the fauna and the large quantities of water needed to extract the mineral and secondly because of the use of large quantities of cyanide, one of the most mortal poisons that exist.

The psychologist, Daniel Matamoros considers that the excessive noise made by the machines causes various effects both on the workers and on the population living near the mine. "On a physiological level, noise causes stress, so that the persons cannot rest normally due to constant tension."

He also affirms that the dust produces respiratory, lung and bronchial diseases, as well as deafness and allergies that can become chronic due to lack of medical care.

The expert told us: "When people have favourable expectations but shortly discover that they are false, they feel resentment, affected and impotent because there is nothing they can do to return to their previous state," on referring to the displacement of the whole community of Palo Ralo to another sector of the municipality. The psychologist affirmed: "They feel affected because their form of life has been changed and their traditions have been broken."

However, none of this seems to concern either the mining company or the government bodies. Almeyda ironically summarises the situation as follows "the opencast operation with cyanide is used because it is cheaper for the company, it is a project protecting mining interests and not the country's interests, and it is logical when what is more important is to accumulate wealth and not environmental and human conditions." (WRM Bulletin N° 71, June 2003).

Honduras: Journalist opposing mining murdered

On the night of 26 November 2003, journalist Germán Antonio Rivas was shot and killed. He was the managing director of Corporación Maya Visión television station, which broadcasts from the western city of Santa Rosa de Copán, on the border with Guatemala. He was

the director of the news program “CMV-Noticias,” known for its criticism of the installation of a mining operation within the Guisayote National Park in the department of Ocoatepeque, questioning the activities of the mining company due to the impact they would have on the environment and the conservation of natural resources.

Rivas had survived an assassination attempt on 24 February 2003 and had received threatening anonymous telephone calls. He was convinced on that occasion that the attack and threatening were connected to his then station’s reports on the ecological damage caused by the *Minerales de Occidente (MINOSA)* company, particularly on a cyanide spill in the Lara River, a tributary of the Higuito River, the source of drinking water for the city of Santa Rosa. “I don’t dare to confirm [that I was targeted because of this coverage], but I don’t discard the possibility. To say so would put my life and that of my family at grave risk,” Rivas admitted.

In a similar case, Marisol Tábora, a member of the coalition of non-governmental organisations *ASONOG*, was threatened with legal action in early February for conducting research into the death of fish and other species following a cyanide spill near a mine in Copan’s La Unión municipality.

The police have been silent regarding Rivas’ assassination, allegedly because they have not found a motive for the journalist’s murder. Is all the above not sufficient to at least consider the mining industry as a possible suspect? (*WRM Bulletin* N° 77, December 2003).

Jamaica: Deforestation linked to mining, agriculture and tourism

Jamaica, the third largest island in the Caribbean, is dominated by an extensive cordillera. The island was once almost entirely covered by forest, of which there are four main types whose distribution is determined by the rainfall pattern: dry limestone forest on southern lowlands and hills; intermediate limestone forest in the central uplands, wet and very wet limestone forest in the Cockpit Country and John Crow Mountains, and rainforest (lowlands and mountain).

At present, Jamaica's lowlands have been mostly cleared for agriculture, and overall more than 75% of the original forest has been lost. Remaining forest is largely secondary in nature and only the mountain forest in the most remote, inaccessible and steep part of the island has survived undisturbed.

Hurricane Gilbert played havoc in Jamaica in 1988, with torrential rains and winds. Subsequent extreme flooding and numerous landslides left a toll of death, homeless people and much of the country's infrastructure destroyed. But blame was not on nature alone. Increasing deforestation in Jamaica's mountains and the resulting soil erosion worsened the impact of the hurricane.

The country has a sad record of local deforestation speed, much of it due to the fast growing tourism industry and agriculture expansion, mainly coffee plantations. While the tourism industry replaces beaches and forests with newly built hotels and roads, inappropriate agricultural practices on lands where forests once grew have resulted in accelerated soil erosion that cause downstream sedimentation and flooding. Like a chain reaction, this has caused the degradation of the coral reefs and beaches that surround the island.

But bauxite mining – the island's second largest foreign exchange earner after tourism – is considered to be the single largest cause of deforestation in Jamaica. On the one hand, this activity destroys large areas of forest because bauxite is extracted by open cast mining, which requires the complete removal of vegetation and topsoil. But at the same time bauxite mining is an indirect cause of deforestation through the opening of access roads into forests. Once access roads are cut, loggers, coal burners and yam stick traders move in, taking the trees in and around the designated mining areas. Mining is thus responsible for extensive deforestation far beyond the mining areas themselves.

Kaiser – owned by the US-based company of the same name – Alumina Partners (Alpart) – owned jointly by Kaiser and Norwegian Hydro – and Alcan – owned by Alcan Canada and the Jamaican government – are the outstanding players whose mining rights supersede all others under Jamaican law.

In recent years, deforestation has led to the deterioration of more than a third of Jamaica's watersheds, drying up streams and rivers and rendering cities and towns suffering from lack of water. The diversity of plant and animal life is also threatened by the destruction of forests, leading to the loss of traditional ways of life, the knowledge about local plants and their medical and other uses.

Although there are currently plans and projects to sustainably manage existing forests and to restore degraded areas through tree planting activities, it is clearly necessary to address the direct and underlying causes leading to deforestation in order to create the adequate conditions to achieve that aim. And if bauxite mining is the "the single largest cause of deforestation in Jamaica," then this should be the starting point to revert the process. (WRM Bulletin N° 50, September 2001).

Nicaragua: Canadian mining company accused of cyanide spill

The municipality of Bonanza belongs to the North Atlantic Autonomous Region. Since 1880, when gold deposits were discovered, the region has suffered from the "gold rush." It also gave rise to strong migratory currents from many parts of the world in the search for this metal. Presently, the main economic activities of the region continue to be the exploitation together with industrial and artisan processing of gold, and subsistence agriculture.

On 14 January 2003, a cyanide solution spill – a product used in the industrial processing to obtain gold – took place at the Canadian company HEMCONIC and/or Greenstone. The spill was the equivalent of 30,433 gallons, with concentrations of over one hundred mg/litre. The accident was due to mechanical failures and was publicly denounced by the inhabitants of the locality. According to company technicians, the cyanide dumped into the Bambana river has a percentage of 0.9 ptm (parts to a million), which does not represent a hazard to human beings.

However, health workers from the Indigenous community of Prinzubila, Prinzapolka municipality, reported the death of seven children who are suspected of having been poisoned by drinking water from the Bambana

River – this community is located on its banks. The death of another five children from the neighbouring community of Wasa King (Rosita municipality) was also reported.

A Ministry of Health Commission followed up on the cases and concluded that none of them was due to poisoning. However, the Humboldt Centre organization – that has monitored the activities of this mining company since its start – set up a technical team in order to verify the magnitude of the spill. On 24 and 25 January 2003, five samples were taken to verify the concentration of the solution, and later sent to the Centre for Research on Aquatic Resources (Centro de Investigaciones de Recursos Acuáticos-CIRA) for analysis. From the results obtained, it appears that, with the exception of sample 4, all the analyses showed results above the standard, indicating that the spill contained cyanide.

Since 1994, HEMCONIC has had the concession of the BONANZA plot, covering 12,400 hectares for a 50-year period. The main processing system used by the company is leaching. Already in 1995, the Bonanza mine discharged cyanide solutions into the rivers Tunky, Concha Urrutia and Bambana, causing damage to the environment and surrounding communities, basically rural or indigenous communities that obtain their water supply from surface sources, making them more directly exposed.

In 1999, the Humboldt Centre had formally denounced HEMCONIC before the Environmental Procurator's Office, for contamination of the water table and rivers surrounding the cyanided lagoon. The Nicaraguan Centre for Research on Aquatic Resources made an inspection and took samples from the mine's cyanided lagoon and concluded that the treatment process was inadequate to reduce the cyanide concentrations before they were discharged.

In the year 2000, the Humboldt Centre lodged a formal complaint against the Nicaraguan State and the Canadian mining company HEMCONIC and/or Greenstone, before the Honourable Water Tribunal, for non-supervision on the part of the State in the task of monitoring and because of cyanide effluents into the Tunkey, Concha Urrutia and Bambina rivers, threatening the quality of life of the local inhabitants and affecting the

water resources of the Bonanza municipality. The Tribunal's verdict was in favour of the plaintiff.

In this further episode of contamination, on 20 February 2003, the Humboldt Centre submitted to the mass media the results of the analyses it had made. It also sent the Ministry of the Environment the results and a letter requesting their opinion in this respect and lodged a complaint with the Environmental Procurator's Office, requesting corrective action to be taken in this case. So far, no action is known to have been taken by the Environmental Procurator's Office. In the meanwhile, the local population continues to be submitted to the risk of cyanide poisoning. (WRM Bulletin N° 74, September 2003).

Panama: Mining, forests and indigenous peoples' rights

The isthmus of Panama stretches in Central America, one of the regions of highest natural and cultural diversity in the world. Different forest ecosystems constitute an essential component of such richness. Several indigenous nations have found in the forests their home and source of livelihoods. In Darién, San Blás and Panamá Oriente live the Emberá-Wounan and the Kuna indigenous people, while the Teribe occupy the area of Bocas del Toro, in the border with Costa Rica, together with the Ngobe-Bugle, who also inhabit part of the provinces of Veraguas and Chiriquí Oriente. According to the 1990 National Census, the indigenous population of Panama is composed of 180,700 individuals, which represents 7.8% of the total population of the country.

According to the existing records, since 1850 the forest area has been declining at a high rate. That year forests were estimated to cover 91% of the country's area, even after having suffered a severe process of deforestation caused by the Spanish colonization, which started in the 16th century. During the 20th century the fall was remarkable. For example, between 1950 and 1960 forest cover diminished from 68% to 58%. According to official estimates, in 1992 the forest area was reduced to 3,358,304 hectares, representing 44% of the country's area. Nowadays deforestation rate has been estimated in 75,000 hectares a year.

Even though nowadays Panama has the second largest percentage of primary forests in Central America, and the highest percentage of

protected areas (one third of the total forest area) in the region, all of Panama's remaining frontier forests are threatened, and with them the rich natural heritage they hold and the territories and livelihoods of native peoples. Industrial logging, road construction, cocoa production, and mining have been identified as the main causes of deforestation and forest degradation. The construction of the Panama Canal and the projected Pan-American highway across the Darién region, at the border between Panama and Colombia, are clear examples of mega-projects that have already destroyed or are expected to have serious impacts on the forests.

As has also happened in neighbouring Costa Rica and Nicaragua, mining is resulting in disastrous effects in several areas of the country, generating at the same time conflicts with the indigenous communities that live there. In 1994, 25% of the country area was covered by mining concessions or applications and currently over half of the national territory is open to mining concession applications. Many mining sites are located in the forests and 70% of concessions have been granted in indigenous lands at San Blás, Boca del Toro, Veraguas and Chiriquí. The Panamanian Natural Resources Directorate has reported that 70 % of the approximately 20,000 km² of the national territory deemed to have mining potential is on land claimed by indigenous groups. The government has already approved extensive copper and gold mining concessions within the Ngobe-Bugle and Kuna territories. In the case of Kuna Yala, the concession granted to the Canadian company Western Keltic Mines Inc. extend over more than 50% of the Kuna territory. At the same time, other Canadian companies – such as PANACOBRE, a subsidiary of Tio Mine Resources Inc, Adrian Resource, Innet Mining Corp – have been granted important concessions in the Ngöbe Buglé's territory.

Several cases in Panama can be mentioned showing the destructive consequences of industrial mining development on forests and people that live in them. For example, the Project of Cerro Petaquilla in the Province of Colón will imply the loss of at least 2,500 hectares of forests to give way to the infrastructure for the mine itself and for the roads that will allow access to the area. It is also feared that the project will affect the neighbouring El Copé National Park and the Donoso Forest Reserve. This Province showed the second highest deforestation rate between

1986 and 1992, representing 22.35% of the total forest loss. Another important conflict is that generated by copper exploitation by the Canadian company Panacobre S.A. with the Ngobe-Bugle people at the Province of Chiriquí, which are the largest indigenous group in the country. Although the General Congress of the Ngobe-Bugle has rejected the project, the government has granted the company a concession for 25 years, that can be even extended. The Kuna indigenous peoples – the second largest native nation of Panama – are also facing the aggression of mining projects in their traditional territories.

The main issue to stop those destructive mining activities and to protect the remaining forests is the recognition of the indigenous peoples traditional rights to their territories – including the subsoil – resources and culture. The first recognition of an indigenous territory by the Panamanian government was that of the Comarca San Blás and goes back to 1938. In 1983 the Comarca Emberá-Wounan in the Province of Darién was recognized, in 1996 the Comarca Kuna of Madungandi in the Province of Panama, and in 1997 that of the Ngobe-Bugle, which was the result of a long struggle of this indigenous nation against the interests of miners, loggers and cattle-ranchers which opposed the demarcation and recognition of the indigenous territory.

Indigenous peoples are the ones best placed to be the custodians of the forests and therefore to ensure their conservation. It is thus necessary for further steps to be taken for the recognition of the rights of these peoples to their territories. (WRM Bulletin N° 46, May 2001).

SOUTH AMERICA

Argentina: Peoples and forests threatened by Canadian mining company

The city of Esquel is located in an enclave on the banks of the Esquel river, between hills with slopes forming an impressive amphitheatre, set off by the marginal forests of the sub-Antarctic forest region and in particular, the Valdiviana forest in the Province of Chubut, to the West

of the Argentine Patagonia. Its 31,000 inhabitants live and enjoy surroundings that they describe as a city where nature surprises travellers at all seasons because of the landscapes of unusual beauty, thousand-year old trees, rivers and hundreds of pools and lakes protected by enigmatic forests. The city's inhabitants are proud to announce that they cultivate respect and care of nature. They belong to a region where "we who inhabit it, hope that our children and grandchildren can enjoy it."

This feeling does not seem to be of much importance to those promoting the installation of a mining plant using cyanide treatment for gold exploitation at only 5 kilometres up-river from this beautiful city. Unfortunately, this is only the first of many mining extraction projects that will affect the whole Patagonia Andean region and in general, all the Argentine and Chilean Andes Cordillera, thanks to the privileges granted to multinational companies with the Mining Integration Treaty, signed in December 1997.

Gold mining is one of the most destructive and contaminating activities. Works in Esquel in particular would be extremely depredating, as they would be done by dynamiting 42,000 tonnes of rock per day, of which 3,000 tonnes would be ground to dust and then treated with sodium cyanide dissolved in water. As a result, the consumption of water would immediately increase, with the potential depletion of rivers, lagoons and springs used in the fields and in the city.

It is expected that there would be sound-related problems due to the explosions and generation of dust, particularly during the summer, together with risks of accidents of all kinds during the transportation and use of these enormous quantities of cyanide, considered as one of the most potent poisons known, in addition to sulphuric acid and other lethal compounds. The inhabitants' quality of life would be enormously affected, as stated in a recent report prepared by the National Network of Ecologist Action, RENACE.

Making use of the facilities and privileges granted by the government – such as total tax exoneration – Meridian Gold, a multinational company with majority Canadian capital owner of 90% of the shares of the Argentine company, El Desquite S.A., would obtain profits in excess

of 1,000 million dollars, “in exchange for some dozens of work-posts and practically non-existent royalties,” the RENACE report also claims.

The company has spared no measures to convince the local population that there will be no contamination or toxic emissions, boasting about the myth of Canadian companies’ environmental responsibility. However, it is well-known that it is only a myth, as “the worst social and ecological impacts of the past fifteen years can be ascribed to some of the country’s [Canada] biggest enterprises, backed by their most respected private, financial, and governmental institutions,” according to the WRM report on Canadian mining companies.

Both reports contain examples of the irresponsible action of the companies and of the resulting environmental disasters. However, the companies use all kinds of methods to prevent the population from reacting while they “empty the mountains”: they take them to visit other countries, give talks to the community and threaten those who oppose them.

The same scheme has been repeated in Esquel. A group of neighbours recently travelled to Antafogasta in the North of Chile, as guests of the company, to visit a mining project carried out in the middle of the most arid desert in the world, that in no way can be compared to the neighbouring Los Alerces National Park, where forests of over 2000 years old of *Fitzroya cupressoides* grow, a true natural shrine.

The Municipal Auditorium of Esquel was also the scene of a shameful conference – due to the accumulation of errors and inaccuracies – given by a representative of Dupont, one of the companies that will possibly be selling the cyanide, while local representatives of the Mining Office distributed Dupont leaflets and the Director of Mining himself helped to project the slides.

To complete this picture, Dr. Silvia González, a teacher and research worker at the National University of Patagonia, received threats by telephone after having presented the city’s schools with a scientific paper on the effects of cyanide.

In spite of all this, this community, like the communities of Tambogrande in Peru, Los Encuentros in Ecuador, Plananlto in Colombia, San Carlos

in Costa Rica, are ready to defend their lands, their forests and their quality of life, and to demand the national authorities not to allow this plundering to take place. (WRM Bulletin N° 64, November 2002).

Argentina: A great small victory against a Canadian mining company

The inhabitants of Esquel, a small Argentine town in the Province of Chubut, have been undertaking an important struggle in defence of their forests and their environment. An increasing number of the city's inhabitants, together with inhabitants of the Andean region and regional and national organisations are opposing an open cast mine project and the installation of a cyanide processing plant for gold mining, to be located at eight kilometres from this town, which is surrounded by lakes and millenary larch trees.

In spite of the fact that the neighbours of Esquel are suffering all types of threats, they have not lacked strength and imagination to face the Canadian transnational company, Meridian Gold and its subsidiary company, El Desquite, the beneficiaries of this project. Demonstrations, ceremonies, marches, meetings, talks, declarations and even rock concerts have been organised over the past months against gold mining in the region. Various web pages have been created to disseminate information on the subject and to seek international support for the campaign. They have also resorted to the scant legal instruments available to those affected in these cases. During the month of December, the city neighbours submitted an Action for Environmental Protection, used to protect all the rights and guarantees set out in the Constitution and in particular "the right of all inhabitants to defend their environment."

On 19 February, the good news was received. The Civil court judge, Dr. Claudio Alejandro Petris had ordered the urgent halt of all Minería El Desquite's on-going works and activities in the Cordón Esquel, and prohibited the initiation of new works until all the precautions foreseen under Provincial Law 4023 on Environmental Impact and in its regulating decree had been complied with.

"Now the heart of the matter must be resolved, basically consisting of declaring all the works carried out to be illegal, ordering the total recovery

of the altered environment and the application of a fine to the individuals and/or companies responsible for this action for an amount of up to 5% of the total of the Project. Although this will be a very hard legal battle, I believe this to be a very positive sign," commented a neighbour.

This resolution sets a very important precedent regarding the application of provincial laws, such as law 4032 on Environmental Impact, which requires in all cases the holding of public audiences, while the mining code that the companies had managed to change in their favour, does not have this requirement. So far, environmental impact assessments were just mere bureaucratic formalities, bearing the stamp "approved" right from the start. Furthermore, it is important, given that this resolution potentially affects any other mining project, at least in the Province of Chubut.

It is for this reason that the population of Esquel consider that the legal decision is a "small" but at the same time, a great victory. For them it is clear that company power, both economic and political, is very often able to win battles in courts of law, achieving verdicts in their favour that are hardly related to justice. For this reason, the struggle at Esquel continues, encouraged by the recent legal decision. (WRM Bulletin N° 67, February 2003).

Argentina: Echoes of the plebiscite against Canadian mining exploitation

The streets of the Patagonian town of Esquel still echo with the celebrations held on the resounding victory of "NO" which obtained 81% of the non-binding plebiscite held on 23 March. The monstrous governmental-company propaganda machinery was unable to convince the population to give its support to the exploitation of a gold and silver mine, located some 6 kilometres from the town. The most important town in the Chubut cordillera, inhabited by some 30 thousand people, said NO, and Mining Argentina trembled.

Both the provincial and municipal governments – in favour of "YES" – had to announce that they would respect the people's will. However, the Federal Mining Council (Consejo Federal Minero-CoFeMin) comprising representatives of the mining provinces ignore the people's

will and the Canadian mining company, Meridian Gold Inc. has stated that it will not renounce its extractive intentions.

In the fervour of victory, on 29 March hundreds of inhabitants of Esquel symbolically closed the access route to the deposits. Furthermore, on 2 April, the local Deliberating Council, promulgated an ordinance declaring Esquel a “Non Toxic and Environmentally Sustainable” Municipality. This ordinance prohibits “industrial and mining activities that use leaching with toxic products or any other technique that requires the use of explosives and toxic inputs, or techniques that release into the atmosphere substances of any kind that on their own or in combination with others, could be toxic and/or noxious to human health, to natural resources as a whole, water, soil, flora, fauna, landscape, sources of conventional and non conventional energy and atmosphere, on the basis of environmental values.”

Through this ordinance, the zone of mountains, peaks and edges located within the municipal lands, was declared a Specially Protected Landscape Area, in order to preserve its natural characteristics.

For a few days Esquel, a town unknown to millions of Argentines, was the news on the front page of several newspapers. Suddenly it had become incorporated into the global village and the 2000 km separating it from Buenos Aires, seat of political and economic power, had disappeared. Devaluation of Argentine currency has been the signal awaited by companies to start the mining cycle, a new cycle of economy for the country, according to the estimates of the Under-secretariat for Mining. However, the undertaking chosen as a national milestone is resisted by the people.

The promotion policy launched in the nineties, with the exploitation of the gold deposits of Bajo La Alumbra in Catamarca, and Cerro Vanguardia in Santa Cruz, has suffered an unexpected setback.

Some sights have already been aimed at the Province of San Juan, located in the central west of Argentina, due to the unrest generated in the population by the contamination of the Valle del Cura area. Following an investigation by the local Mining Council in the Lama gold fields, toxic waste was found buried high up the mountain. According to this

body, the Barrick Exploraciones Argentina S.A., a company with Canadian capital, did not fulfil commitments taken on in the Environmental Impact Report and will have to pay a fine of some US\$80 thousand.

In view of this finding, the “Prensa Geo Minera” publication, linked to interests in the sector, warned a few months ago that “If (Barrick) does not prepare a concrete information programme on environmental protection and relations with the communities, both undertakings (the gold mines at San Juan, Lama and Veladero) could see their implementation endangered, as has happened recently with the gold exploitation project at Esquel, the property of the Meridian Gold company.”

While in the province of Catamarca, in the Northeast of Argentina, complaints continue against the leaks in the tailings dike at the gold mine at Bajo La Alumbra. Contamination from acid leaks in the basin of the Vis Vis River could endanger the north of Argentina’s greatest water reserve.

It is true that the Esquel plebiscite does not have any legal force, but it has the enormous power of embodying the people’s freely expressed feelings against environmental destruction by mining activities. It also represents the feelings of other peoples which are suffering from the impact of mining in Argentina and which now see Esquel as an example to be followed. With their vote in the plebiscite, the inhabitants of Esquel have placed the mining sector in general and a Canadian company in particular, in a very weak situation. (By: Hernán Scandizzo, WRM Bulletin N° 69, April 2003).

Argentina: The struggle against mining takes on different forms

The struggle of the people of the town of Esquel, in the Argentine Patagonia, against the intentions of the Canadian mining company, Meridian Gold Inc. to exploit a gold mine in Cerro 21, have been going on for over seven months now. Ranging from mobilizations to “escraches” (mass demonstrations outside the homes of those responsible for the mine), from a plebiscite and legal action to the

symbolic closing down of the access to the camp, from the graffiti and murals to the parliaments of the Mapuche People and the “No! Forum.” This Cordilleran city, located 2000 km to the south-east of Buenos Aires has become a national reference for the struggle against mining and encroachment by the corporations on the country’s economic and political life.

This town, located in the north-east of the Province of Chubut, hosted the First “No! Forum” organized by the Assembly of Self-Convended Neighbours of Esquel (Asamblea de Vecinos Autoconvocados de Esquel-VAE). Members of human rights, trade union, social, indigenous, environmentalist, and women’s assemblies and organizations, community communication media and platforms against the Free Trade Agreement of the Americas (FTAA) and the consequences of neo-liberal globalization, gathered there from 4 to 7 June. The same struggle against mining and for the preservation of the environment that has enabled many of the inhabitants of Esquel to understand the demands of the Mapuche People and support them, has paved the way for the 4-day “No to the Mine” forum to become “No to FTAA, to the auctioning of Patagonia, to evicting aboriginal families, to the handing over of natural resources, to the “judicialization” of the social conflict, to the war.” All these NGOs synthesized a “YES to life.”

Although over the past months no further threats have been made to those neighbours who have become “anti-mine” referents, neither have the members of the Workers Building Union of the Argentine Republic (Unión Obrera de la Construcción de la República Argentina – UOCRA) and other sectors close to the Provincial Government continued with their intimidations, tension has now been transferred to the Mapuche communities. During the middle of March, the local police attempted to evict the Fermín family of the Vuelta del Rio community. The operation included the total destruction of a house, although the Esquel Court Judge, José Colabelli said he had only ordered the “eviction” of the indigenous family. It is now possible that an impeachment process will be started against the magistrate because of his presumed aversion for the Mapuche People and because his wife is the owner of a quartz mine in the region.

In this same area, to the north-east of Chubut, some 20 families of the Cushamen indigenous community have been notified of prospecting

by the Teck Argentine company (a subsidiary of the Canadian company, Teck Gold), which is interested in locating first and second category minerals over an area of 10 thousand hectares. The Cerro Centinela community (on the Andean Cordillera) have also received notification of the intention to prospect another 10 thousand hectares, this time not in the arid (but living) steppe, but in an area of forests and springs.

In the meanwhile, the misleading provincial legislation, sanctioned after the plebiscite held on 23 March, has become evident. In fact, it was made known recently that very few environmental NGOs will sit on the commissions regulating the standard prohibiting open cast mining and cyanide leaching, although exception zones will be foreseen. The neighbours of Esquel and the region will be excluded from the debate, as they do not enjoy a legal status. The authorities' spirit has once again been shown up: to play at listening to the people but to govern behind their backs.

Furthermore, the recent election of the Justicialista candidate, Nestor Kirchner as President of Argentina has given rise to varied expectations. His Patagonian background has fuelled hopes in some, as has the apparent honesty of his public management. However, others do not forget that when he was Governor of Santa Cruz, he initiated exploitation of the Cerro Vanguardia gold fields.

Presently, the works at Cerro 21 have been halted because of the court sentence, although this does not imply that Meridian Gold has given up the Cordón Esquel Project. The company declared that it would take a year to redesign their communication strategy and to revert their poor image. Until it achieves this, it will move its administrative enclave to a village in the plateau.

On 4 December, thousands of people from cities and villages in the Provinces of Chubut and Río Negro again marched together with the neighbours of Esquel to say "NO to the Mine."

In addition, the contagious firmness of the people of Esquel, who do not bow to the threats and attacks against the premises of the "Self-convened Neighbours for NO," and the seriousness of the mining threat led to a meeting in Buenos Aires on 24 and 25 November of delegations from

Catamarca, San Juan, Chubut, Tucumán, Córdoba and Río Negro, where they set up the National Network of Communities affected by Mining.

The meeting provided an opportunity for the delegates to get to know the problems of the centre, west and northwest of Argentina.

Meanwhile, the Esquel neighbours are seeking new ways and opportunities to express and enrich their opposition to exploitation of the gold mine. These range from the local assembly to a debate on global society, from the plebiscite to the Mapuche Parliament, from the march to the mural. Resistance to the mining project takes on various forms and continues its projection towards the rest of the country. (By: Hernán Scandizzo, WRM Bulletins N° 71 and 77, June and December 2003).

Bolivia: Protected areas at the disposal of oil companies

In some cases following a very dubious public participation process and in others, causing strong reaction, the Protected Areas Bill was submitted to consultation. In general, there is rejection of the Bill's attempt to legalize entry of oil and mining companies into protected areas such as the Pilon Lajas Biosphere Reserve and Indigenous Territory, and the Amboro and Madidi Parks. Peasant organizations in Cochabamba stated that if protected areas are for the oil or logging companies, they prefer them not to exist.

Oil companies turn to the highest government levels to obtain the approval of seismic exploration projects, the laying of pipelines and oil exploitation within protected areas and indigenous territories, endeavouring to reduce to the minimum environmental and social requirements and do not respect management and zonation plans. To this is added the granting of mining concessions linked to political power. Eight oil companies obtained 24 concessions to explore and exploit hydrocarbon minerals in nine protected areas in Bolivia according to data from the National Service for Protected Areas (Servicio Nacional de Areas Protegidas – SERNAP). Andina, Total, Chaco, Repsol, Maxus, Petrobras and Don Wong are some of the companies carrying out such operations in Bolivian preservation areas.

If the bill is approved, proposals for sustainable biodiversity use will be dismantled, such as the Indigenous Mapajos Ecotourism Enterprise in the Pilon Lajas Reserve and Indigenous Territory, the community ecotourism projects in the Amoro Park (La Chonta, Mataracu, Villa Amoro) and others in the Eduardo Abaroa Reserve and Sajama Park and in all the protected areas in Bolivia. According to Jose Coello from SERNAP, income from tourism in nature preservation zones can generate more than the returns from oil exploitation. Tourist activity has just started in these areas in Bolivia and has already generated over 4 million dollars, in the Madidi region alone.

The bill establishes the need to re-classify and re-adapt all protected areas to be ratified by the law, implying that the national parks where oil interests exist could be reclassified to enable such activities to enter the areas; this would be the case of the Amoro and Madidi Parks. Although it establishes an exception in the core zones, parks and sanctuaries, protection would be reduced to small conservation islands, such as in Pilon Lajas, one of the most important protected areas in the Andean-Amazon region of Bolivia, part of the Vilcabamba (Peru) – Amoro (Bolivia) ecological corridor.

It is clear that if the bill is adopted, one of the first results will be approval of the Petrobras seismic exploration project, presently on hold at the Ministry of the Environment. To carry out seismic exploration, straight lines 1.5 to 4 metres wide are traced through forests, rivers, plantations or villages, removing the plant cover or other cover in order to locate geological structures containing hydrocarbon deposits by means of detection equipment. In addition to constructing roads, heliports, camps, storage zones for material and equipment causing deforestation of large extensions of forest, pollutants will be dumped in rivers, soils and in the air and there will be impacts on the fauna in the area. Populations in these territories suffer from the invasion of camps of workers from other locations, which totally alter community life.

Most of the legal provisions on protected areas expressly prohibit new oil, mining and logging exploitation activities. Therefore, although sectoral oil and mining laws have defined these activities as a national priority, approval of environmental licences is not guaranteed and has been strongly questioned by ecologist, social and local community

organizations. In 2001 the Department of Santa Cruz and many national institutions managed to halt approval of an environmental licence for the Andina (Amoco) oil company, which was attempting to enter the Amboro Park where ecotourism projects, hostels, research and training projects are being implemented, making the area one of the most promoted and important conservation zones in Santa Cruz.

Another basic aspect questioned in the bill is that for its authors, biodiversity is an issue of flora, fauna and micro-organisms. They forget that the laws in force in the country define biodiversity as having an “intangible” component referring to collective knowledge or associated cultural life. These same laws recognize local community protection of this component.

The bill not only legalizes oil, mining and logging activities in protected areas, but places the “users” of these activities on Management Committees as “actors in the management of Protected Areas,” forgetting that it is precisely these activities and companies that are the main causers of contamination and degradation problems where they operate. (WRM Bulletin N° 74, September 2003).

Chile: Campaign against a Canadian project for the production of aluminium

Presently, the Chilean Patagonia is threatened by a mega-project to be carried out by the Canadian transnational company Noranda Inc., a long-standing mining company that proposes to build one of the largest aluminium reducing plants in the world in the pristine region of Aysen.

To give an idea of the dimensions of the damage that the construction of this aluminium plant (known as “Alumysa”) will cause, the zone where it is to be installed together with the related works, need to be described.

Aysen is one of Chile’s 13 regions, and covers an area of over 10 million hectares (108,494 km²), of which 4.8 million hectares are native forests, 1.1 million are wetlands and 1.8 million hectares correspond to snow covered areas and glaciers. It is important to note that it is the region of Chile having the greatest extension of native forest.

According to the last census carried out in 2002, the human population in this region amounts to 86,697 inhabitants, a density of 0.8 inhabitants per km². The inhabitants of the Aysen region are concentrated in some urban centres, the largest cities being Coyhaique and Puerto Aysen, the latter located very near the place where the converting plant is to be installed.

This part of Chile is remarkable because it maintains characteristics that are hard to find today, such as thousands of hectares of forests and pristine ecosystems with species of fauna and flora that are unique in the planet, clear skies and pure air, non-contaminated lakes and rivers. In addition to the natural wealth of flora and fauna, many glaciers can be found in this region such as the San Rafael lagoon and Campos de Hielos, considered as one of the major freshwater reservoirs in the world.

The region is also characterised by its enormous natural beauty, and year by year the number of national and foreign tourists who arrive in the search of unique landscapes and places increases. It should also be noted that the inhabitants of the region value the natural heritage of their territory and for this reason call it "Life Reserve."

It is within that context that the mega-project "Alumysa" pretends to be implemented. The project presently undergoing environmental impact assessment implies at least the construction of an aluminium reducing plant, the building of three hydroelectric plants and six dams to supply electric energy to the plant (Rio Cuervo hydroelectric plant, Lake Condor hydroelectric plant and Rio Blanco hydroelectric plant), a port at Bahía Chacabuco and a landing stage and floating dock. As if this were not enough, the project also includes a plant to manufacture anodes and cathodes, 79 kms of electric transmission lines from the power plants to the plant itself, and 95 kilometres of roads and decantation lagoons for liquid effluents.

The Alumysa project, belonging to Alumysa Joint Venture and NORANDA Holding Ltd., domiciled in the Cayman Islands, proposes to invest US\$2,750 million, placing it as the greatest foreign investment in the history of Chile for a project with a 50-year shelf life.

What is incredible is that only 101 million dollars of this project will be used to build the major works and 350 million dollars will be used for labour, while most of the remaining 2,200 million dollar investment will be used to purchase machinery to operate the plant. This seems curious, if we consider that there are special laws in Chile for extreme regions (such as Aysen) facilitating the importation of machinery with very low import taxes.

If we add to this that companies classified as mining companies in Chile do not pay taxes as there are mechanisms to encourage the installation of this type of enterprise dating back to the military dictatorship, we easily come to the conclusion that this is a magnificent business for this foreign transnational company and a further attack on the ecology and economy of a third-world country.

The following important background information, describing the economic and ecological attack, is important to note:

- Chile does not possess the necessary raw material to produce aluminium: it will have to be imported. During the operational stage, annual production would amount to 440,000 tonnes of aluminium per year, requiring the importation of approximately 846,000 tonnes of alumina, 146,000 tonnes of burnt coke, and 43,500 tonnes of tar, brought in from other countries such as Australia, Brazil or Jamaica.

- The aluminium production process requires a great amount of electric energy and the abundance of water resources existing in the Aysen region will enable electricity to be generated at a very low cost as, unlike the first world, the national water code gives free access to these resources.

- To produce 440,000 tonnes of aluminium per year, Alumysa will need to import 1,100,000 tonnes of inputs, both for the production process and for the manufacture of anodes and cathodes. A simple subtraction will enable us to see that a minimum amount of 660,000 tonnes of waste per year will be generated in the region.

- Furthermore, for 365 days a year, massive and continuous releases will take place of toxic gases, such as sedimentary particulate fluoride,

organic particulate material (which is highly cancerigenic), greenhouse effect gases (carbon dioxide, perfluorocarbon), sulphuric gases causing acid rain, carbon monoxide and a great amount of liquid industrial effluents.

- On producing 440,000 tonnes of aluminium per year, 980,000 tonnes of carbon dioxide will be generated, therefore over 50 years, this would reach the amount of 49,000,000 tonnes of CO₂, added to the perfluorocarbon type gases which are highly dangerous due to their duration and contaminating effects, increasing the greenhouse effect and global warming.

- To this should be added a non-assessed amount of methane and CO₂ produced by the dams on flooding almost 10,000 hectares of land with organic matter.

Summing up:

- Chile has comparative advantages for foreign investment due to its weak legislation in terms of low environmental, labour and tax requirements.

- The environmental, social and economic costs for the region are enormous. Alumysa implies the destruction of ecosystems that are unique in Chile and in the world. The production of aluminium generates the release of fluorides in the air and in the water, placing at risk the zone's biodiversity, the terrestrial and aquatic flora and fauna and human health.

- The region's forests are unique ecosystems in the planet and are characterised by many endemic species, of which various are endangered. In Chile, most of the fresh water fish are endemic and their conservation is to a certain degree threatened. The Alumysa project will increase this risk.

- This region would be used as a corridor in the production of aluminium and as a rubbish dump for the region, because raw material will be imported to carry out a highly contaminating production process, the profits will be taken away and the rubbish left behind, including toxic waste and highly contaminating releases in the air and in the water.

- This means that we are clearly facing a case of mining “maquila” (sweatshops), in which a first world country will use the benefits of an open economy such as the Chilean one. All this is taking place with the approval, the blessing and even the clear support of well-known Chilean politicians, among whom, we may mention the Minister of Finance.

For these reasons, environmental and citizen organizations in Chile have set up the Aysen Life Reserve Alliance to say: Alumysa? NO THANKS!!!! (By: Flavia Liberona, WRM Bulletin N° 71, June 2003).

Colombia: Community stops a mining license in forest reserve

In the Planalto forest reserve in Colombia, the 180 species of diurnal butterflies found until today, can go on flying, the ten genres of Melolonthidae beetle will go on scratching the soil, and also the ants that live there and form part of all the subfamilies in the neotropics will continue their work. The flight of the 160 different species of birds, 9% of the total species identified in Colombia, will continue uninterrupted. All this will be possible thanks to the action of the people living in the reserve area and those who supported their struggle.

The Planalto reserve spreads over 100 hectares, in one of the ends of the city of Manizales; it comprises the biggest stretch of forest located in the pre-montane and very humid tropical life zones of the municipality. A high percentage of the plants that grow in the area cannot be found in other forest stretches, and with regards to bird species, less than 55% are in other forest areas within the same life zone, and some of them, such as the white-tipped sicklebill, seem to be restricted to this forest within the municipality.

For decades, the coffee region of Colombia, where the Planalto reserve is located, has been subject to severe transformations of its mountain ecosystems, mainly to prepare land for coffee monoculture, although there is now a trend towards crop diversification and the recovery of traditional forms of production – such as under-shade coffee – due to the crisis of the agricultural sector, something which is to be expected when the economy of a region depends solely on one product. This

process has produced the disappearance of most of the native forests on the stretch between 1,000 and 2,000 metres above sea level, a fact that has been worsened by the dynamics of colonization and concentration of population in the area (near 70% of the Colombian people live in the Andean region).

On the other hand, the tropical Andes have been proposed as one of the 15 “hotspots” or priority areas for conservation at world level, home to 30%-40% of the biological diversity of the earth.

But – as usual – neither all the above reasons, nor the declaration of the reserve as “area of environmental interest” in the land plan of the municipality hindered the company INGEOCOM Ltda to take the first steps to obtain a mining license within the reserve.

On June 16, 2000 the company asked for the permits needed for the exploitation of amphibolitic rock in the Planalto in a 12-hectare quarry, in which it projected to obtain a minimum annual production of 10 thousand cubic metres.

Voices of protest rose at once, and the community expressed its strong rejection regarding the possibility of having a mine within the reserve. Initially it was the Centro de Investigaciones de Café (Coffee Research Centre), that owns the land, who defended the conservation of the area, arguing that it was an area dedicated to research and protection of biodiversity. The members of the community in general, as well as students and academics adhered to the protest. Nevertheless, a year later the project already had the exploitation license granted by the Ministry of Mines and Energy, and the only requirement pending to start mining operations was the environmental license; such license was applied for on June 19, 2001 to CORPOCALDAS, the environmental authority of the municipality.

On August 22, 2000, the company suffered its first setback: Corpocaldas recommended not to continue with the project because it was not environmentally feasible, and the representative of the company asked Corpocaldas to reconsider its decision. The reserve defenders intensified their struggle, and the situation came to the attention of many people who sent messages to Corpocaldas, even from abroad, requesting the

refusal of the license. Conservation-linked people from the research centre in which the reserve is located produced a document which clearly shows the importance of the preservation of the reserve for the city and for the region, in terms of conservation, education and research.

As a result of the pressure, the environmental authority was forced to call to a public audience in December in order to listen to both parties; this audience finally became one of the milestones of the environmental struggle in the region, both due to its scope and for the massive attendance of all community sectors, which wanted to show their commitment and contribute to the achievement of a collective aim which was also theirs.

Finally, the victory was for the friends of biodiversity, which at last heard from Corpocaldas the answer they hoped for: “the license for the mining exploitation in the Planalto is not granted,” a decision ratified by Resolution No. 0193 on February 5, 2002.

This is not only the success of life prevailing over particular interests, but also an important step towards the consolidation of aims which are of interest for the community as a whole, that is now realizing the importance and power of collective action, and the significance of asserting its rights and beliefs. This success is underscored by the fact that the decision was made by a corporation with a well-known tradition of political tampering, that nevertheless was not able to prevail over the peoples' power. (By: Diego Alejandro Cardona C., WRM Bulletin N° 57, April 2002).

Colombia: The impacts of coal mining

During the late seventies Carbocol, a State coal company, revealed the existence of major coal deposits in the Guajira peninsula. The deposits were located in the territory traditionally inhabited by the Wayuu community, an indigenous nomadic people that moved along the region bordering with Venezuela. Following a long controversy on the advisability or not of exploiting this fossil fuel, the State finally gave its authorization to this company under the argument of regional development of energy. This authorization for large-scale mining exploitation of thermic coal (used for the production of heat) not only

altered the Wayuu's customs and contaminated their environment, but was also the antecedent for a long list of violations of the Colombian State's regulations and for conflicts between the indigenous peoples and the national and multi-national mining companies.

The Wayuu's productive system, based on small-scale farming, the keeping of goats and other species, was then totally disrupted to facilitate the installation of the largest coalmine in the world. The major works for the transportation of 16 million tonnes per year of coal (roads, railways, large encampments) not only transformed the traditional life of these people but also contaminated their environment. The storing of a large mass of coal out in the open resulted in the dispersion of large quantities of coal dust in the air, causing respiratory diseases. As a result, very often the only alternative left for survival consisted of the communities' mass displacement.

In spite of the complaints over environmental and health problems, from the eighties onwards, the mining business was increased with the establishment of the multinational company Esso, who were granted deposits by the State. Over the same period, further deposits were made known in the Department of Cesar and new coal mining companies were set up. Through partnerships with multinational companies, large-scale deposits such as those of Carbones del Caribe, Carbones Soororia, Carbones del Cerrajón were exploited, with the participation of Anglo-American and Canadian companies (Drummond, Glencore International, BHP Billiton, among others), which continue to expand and to receive World Bank loans up till the present.

It is clear that these companies have obtained considerable profits over decades. As to the results for the indigenous peoples and Colombian communities, we prefer to let a local organization – CENSAT – speak for itself: "The wealth of the Colombian territory is being dilapidated without turning into welfare, comfort, into a life for the Colombian people. The value of the natural heritage in the collective imagery of the indigenous people, the peasants, the Afro-Colombians, the miners, has been lost and now underlying in a repetitive way in their imagination is the idea of "exploitation," exploitation of men, women and children, of nature, of the Colombian people and territory. Around mining in Colombia, one breathes sadness, laziness, corruption, lack

of ethics, environmental and cultural genocide and violations of all kinds. We are confident that some time the good life will come back 'for many', that the trees and the land will become organized from the top to the bottom and not from the bottom to the top as is the case at present, that the waters will stop being heavy and dark and that men and women will again be able to die of old age." (WRM Bulletin N° 71, June 2003).

Ecuador: When people said NO to mining

Mining is one of the direct causes of deforestation. In spite of that, not only has this industry continued with its activities, but in the last years it has also managed to introduce changes in national and international legislation and policies, which favour the consortiums of the sector. This has been done to the detriment of the legislation that protects indigenous peoples and the environment.

Furthermore, the powerful interests of the mining industry are not lonely players. They count on the pressure of multilateral institutions, such as the World Bank and the International Monetary Fund (IMF), which, within the framework of the so-called "development" projects, impose structural adjustment programmes that force governments to free the flow of capital in order to facilitate mining expansion.

In Ecuador, however, the people of a small village have stood up for their rights. In the south of the Ecuadorian Amazon, in the Yanzatza canton, province of Zamora Chinchipe, at the confluence of the rivers Zamora and Nangaritza, is located Los Encuentros, capital of a parish of the same name. Its dwellers, pushed by forest destruction, migrated from other systems in search of better lands.

Recently arrived to the region, they did not know the local ecosystem, and consequently they acted inadequately. Now they are suffering the consequences of their bad management, but they have also reflected in order to take the necessary steps to correct the situation, and prevent their children from repeating their fate and being forced to migrate.

But at the same time that they have increased their environmental awareness and began to make plans and decisions about the

environmental future of their area, the Minister of Energy and Mines granted a concession for alluvial mining of 2,500 hectares on the banks of the rivers Zamora and Nangaritza. Riverside communities, to whom the river is a vital element for their livelihood – source of food, water supply both for daily use and irrigation of their food-crops – know that mining will inevitably mean pollution, and that this threatens their food sovereignty.

The local people of Los Encuentros, acting by decision of well attended Parish Meetings, decided to take the matter to court. There they expressed their claims and proved that the concessionaire had violated several constitutional rules by not carrying out the previous consultation with the community and not submitting the Environmental Impact Assessment (EIA) and the Environmental Management Plan in due time for their discussion.

The authorities considered their request. The Under Secretary of Energy and Mines asked them for a month term so that the EIA could be submitted and discussed by the assembly, and accepted to abide by their decision. They received the voluminous document only two days before the limit date; however, they maintained their decision of rejecting the mining concession, in order to ensure a worthy future for their children. Even though this decision was accepted by the National Director of Mines who attended the meeting, and registered in a formal record, whereby a month term was granted to the firm to abandon the region, fifteen days later, the leaders who had signed the record were notified of an administrative appeal filed by the concessionaire and accepted by the relevant authority. The notification also stated that local leaders would have to appear in court for an administrative and technical inspection, accusing them of terrorism and vandalism.

Armed with patience, local villagers massively attended the inspection and demanded that many evident insecure elements were registered in the report, as well as the lack of environmental policies in the mining camp, where solid and liquid wastes were directly dumped into the river. Once again they waited for the date established for the company to leave the place, but, a few days later, instead of leaving, the concessionaire began to work with military support. The villagers of Los Encuentros said: this is enough. They went to the bank of the river

Zamora with their tools (shovels, pickaxes, machetes) and cut the trees that supported a barge built for camp and mining exploitation, forcing the concessionaire to stop the works. They gave the company 12 hours to leave the place. The police and the military tried to repress villagers, but they were far too many. Finally the company abandoned the area on December 18, 2001.

For the people of Los Encuentros, that day has become part of their best history, because they bravely defended their right to live in a healthy environment. They expelled a polluting activity they did not want, betting on other that do not degrade the environment. They knew that their true wealth lies in biological and cultural wealth. ¿Does the government know this? (WRM Bulletin N° 57, April 2002).

Guyana: Transnational mining companies' impacts on people and the environment

Inner land in Guyana consists of a 150 kilometre wide tropical rainforest, mostly untouched. However, the official perception since the '70s of mining as essential for "development," and the opening of the country's economy – with the subsequent promotion of the exploitation of natural resources, especially timber and minerals – to face the increasing foreign debt and satisfy the conditions of the 1991 structural adjustment programme imposed by the IMF and the World Bank, have paved the way to transnational companies. Thanks to the generous grating of huge areas for timber and mining exploitation, they are making big business and, at the same time, destroying the environment and causing severe problems to indigenous peoples.

The results of a report published last year on the impact on mining in the Upper Mazaruni Amerindian District of Guyana confirm this general assertion for a particular region of the country. The Upper Mazaruni River region is a luxurious forest which constitutes the last refuge of the Akawaio (Kapon) and Arenuca (Pemon) indigenous peoples, whose ancestral territory also encompasses parts of the Gran Sabana in Venezuela, and northern Roraima State in Brazil. Their way of living in harmony with the environment has been traditionally based on seasonal migrations between the lower and upper reaches of the Mazaruni and Kamarang Rivers to obtain their livelihoods from hunting, fishing and farming.

Since the end of the decade of 1950 indigenous peoples' authorities of the region have been claiming to the successive governments against the invasion of their lands by miners. In 1959 one-third of the Upper Mazaruni Amerindian Reservation was gazetted as a mining district, and the remaining area renamed Upper Mazaruni Amerindian District. At the beginning they were "procknocker" (small-scale miners), and nowadays they are powerful foreign companies. About 37 transnational mining companies – most of them Canadian – have been registered in Guyana. Several out of them have been and are present in Upper Mazaruni. Golden Star Resources and Vanessa Ventures, both from Canada, are the ones that have caused the most environmental impact and concern to local communities.

Missile dredging (enormous vacuum cleaners shaped like missiles, that are attached to river dredges to remove alluvial deposits) is a normal practice for mining in the region. These dredges destroy river banks and nearby forests, and increase sedimentation causing severe losses in the fish populations, and drastical changes in the hydrology and the geomorphology of the river. Mining companies in Upper Mazaruni also use mercury to maximise gold production, even though it is well known since decades that mercury, both as an effluent and air emission source, provokes serious effects on the ecosystems and human health. According to the authors of the report, the environmental impacts of mining in the area are apparent: the water is discoloured and heavy with sediments, piles of debris accumulate at the river banks, some of which have disappeared because of missile dredging. Environmental Impact Assessment required by law exists only on paper.

The destruction of natural resources local dwellers depend upon has impacted on indigenous people's every day life, especially in their provision of food. It is difficult for them to find enough fish in the once rich Mazaruni River. The noise caused by mining and unsustainable hunting by miners have provoked a decrease in the richness and abundance of game animals. The disruption of local communities' economy has gone along with the emergence of serious social problems as alcoholism, sexual abuses, prostitution and racism.

In sum, the opening of Guyana to foreign companies from the mid-1980s has caused destruction in the country's tropical forests – a rare

case of virtually untouched ecosystems until then – and the complete disregard of the Amerindians that have lived in these forests for centuries using their resources in a sustainable way. This process continues to the detriment of Guyana's forests and indigenous peoples, who are carrying out actions to revert such situation. What used to be a heavenly place, where local people could live according to their cultural patterns, is becoming an example of destruction. What for? For the benefit of a few mega-companies. Who are responsible? The companies themselves – that act in a depredatory way, taking profit of favourable circumstances – and the successive Guyanese governments, which have shown to be unable to control their activities, and especially unwilling to respect and guarantee indigenous territorial rights, which is at the root of the problem. (WRM Bulletin N° 43, February 2001).

Peru: Forests and people threatened by Canadian mining company

The farmers and peasants from the valleys of Tambogrande, San Lorenzo and the Locuto and Nacho Távera communities in the Department of Piura have received a hard blow with the announcement made by Alejandro Toledo's Prime Minister that the country is to become a leading mining country. This does not consider the decision of the populations settled in the area for hundreds of years.

In 1999 the Peruvian government and the Canadian company Manhattan Sechura S.A. signed an agreement granting the mining company 89 thousand hectares of land around the town of Tambogrande in the Department of Piura in northern Peru, for mining exploitation. The transnational company Manhattan Minerals Corp. (of Canadian origin), intends to exploit a poly-metallic bed as an opencast mine. The building of the mine will require approximately 25,000 people to be resettled, the course of a river to be changed and will cause the destruction of the *Prosopis* (algarrobo) forests existing in the zone.

The population of Tambogrande lives on agriculture. They reject mining activities in the zone due to the risks they imply and have launched an aggressive campaign to prevent the project being implemented.

José Valeriano Márquez Nima sits on a sandy hill in Locuto and looks towards the horizon. He observes the river Piura and the town of

Tambogrande and then turns his eyes to the vast *Prosopis* forest and the pastures where they take their animals and where they walk every day to collect *Prosopis* legumes, the economic support for nearly 1,000 peasants from the community of Apostol Juan Bautista de Locuto.

Prosopis legume is a product in demand regionally and nationally and is preferred as fodder for fattening cattle and for dairy cattle. The legume from Piura is marketed in the departments of Lima, La Libertad, Lambayeque, Tumbes and Cajamarca. Its production is more profitable than the production of firewood and charcoal.

The families settled in the Communities of Locuto and Nacho Tavera that will be affected by the mining activities carried out by the Manhattan Minerals Corp. project, obtain a significant part of their income (around 50%) from the sale of *Prosopis* legume and of animals bred in the woods, enabling them to satisfy most of their basic needs for food, clothing and education. Seventy percent of the population settled in this way, not only conserve the woods, but also manage them soundly, thus contributing to maintaining the ecological balance of the environment.

In spite of the fact that the economic powers have loaded their batteries and are using all means possible to find acceptance in the community, there is strong resistance on the part of the population of Tambogrande, San Lorenzo and Locuto, who base their economy on agriculture. The farmers have organised themselves and have carried out various demonstrations. Some 28 thousand citizens have signed a memorandum that the Municipality will submit to the Executive, requesting the revocation of the supreme decrees granting the concession to Manhattan Minerals Corp and asking that their lands be declared not subject to seizure.

It is important to note that the serious impacts generated by Canadian mining companies throughout the world has been documented and analysed in a joint work carried out by the Forest Peoples Programme, the Philippine Indigenous Peoples Link and the World Rainforest Movement. The results of this study have been summarised in the publication "Undermining the Forests. The need to control transnational mining companies: a Canadian case study." (WRM Bulletin N° 49, August 2001).

Peru: Public consultation says NO to mining in Tambogrande

Many Latin American governments, in order to obtain income and satisfy the conditions of the IMF structural adjustment programmes, and supported by World Bank loans, have placed the natural resources of their country at the disposal of multinational companies, and grant concessions to those, who at any cost, wish to perpetuate the exploitation model to their own benefit. Many Latin American peoples have also understood that if they get organised they can defend their lands, their forests and their very survival.

Such is the case with the grant made in 1999 by President Fujimori (currently in Japan after having had to flee from the Peruvian justice) of 89,000 hectares of land to the company Manhattan Sechura S.A. (a subsidiary of Canadian company Manhattan Minerals Corp.), to install an open-cast poly-metal exploitation. Various agricultural and peasant communities in Tambogrande, in the fertile valley of San Lorenzo in the Department of Piura, would see their right to a healthy and productive environment threatened if such a project were to go through.

Mining, and particularly open-cast mining, can occupy and destroy wide areas of land. Over the past decades, most mining prospecting has affected forest ecosystems and represents the second largest threat (following commercial logging) to primary forests on a world-wide scale. Not only are the forests eliminated to give way to mining activities, but additionally, in their construction and provision of energy, mines use large amounts of timber from the surrounding forests. Like the rest of the environment, forests can also “die” when they are exposed to toxic pollutants, acid rain from the treatment facilities and asphyxia from the dust from processing plants. The carob tree (*Prosopis*) forests in Tambogrande provide over 50% of their income to the inhabitants of the area.

Over this time, the communities have organised themselves to oppose the project, in the conviction that it will have very serious social and environmental repercussions. It is well known that even under monitored conditions, disasters occur very frequently, more than in any other industrial process. Mining exploitation is fundamentally an

unsustainable activity, as it is based on the extraction of non-renewable mineral concentrations, which were built up over millions of years. Once extracted, the minerals cannot be replaced and the disruption caused to the environment produces permanent change and damage. While the more easily accessible mining deposits are becoming depleted, the great anxiety to find new sources of cheap minerals is promoting industry to intensify prospecting in indigenous territories and in environmentally sensitive zones.

Mining companies are also developing new techniques that enable them to obtain profit from the treatment of lower quality deposits. This change may imply that mining will become even more invasive and environmentally noxious than before. The treatment of those deposits requires opening up increasingly large mines, affecting increasingly larger areas and the creation and dumping of unprecedented amounts of mining waste. The cost of these losses is borne by the affected zones, communities and governments, rather than by the companies themselves.

One of the most active organisations during the opposition, the Frente de Defensa del Valle de San Lorenzo y Tambogrande (The Front for the Defence of the Valley of San Lorenzo and Tambogrande) has dialogued with representatives of the Peruvian State, with the Manhattan Sechura Mining Company and with various Peruvian and foreign officials, informing them of their concern over the social and environmental impact of a possible mining exploitation in Tambogrande, one of the regions of the country with the highest agricultural production. It is in the mining zones of Peru that the highest poverty and unemployment rates are to be found. Over this period too, the members of the organisation and their families have been the victims of attempts, abductions and threats of death. So far, after one year, the authorities have not been able to clarify the murder of one of the environmental leaders opposing the project and technically advising the Front, Mr. Godofredo García Baca.

The local communities, supported by international organisations, have achieved the holding of a neighbourhood consultation on Sunday 2nd June, 2002 convened by the District Municipality, giving the population the opportunity to voice their views on the mining exploitation. Opposition was impressive. Although the consultation was voluntary, participation

was very high, greater than in national elections: 74% of the residents of Tambogrande took part. Out of the votes, 98.05% stated their opposition to the mining project.

In spite of the fact that Peruvian, Italian, Swiss, Canadian, German and U.S. observers attended, verifying that the population participated freely and with no coercion, those in favour of the exploitation have stated that the neighbourhood consultation was an illegal action.

The residents of Tambogrande have not only ratified their rejection of the mining enterprise and the false development that it offers, but have also shown an example of how organised society can defend its resources and the right to choose its form of subsistence in a democratic way.

In the framework of the present wave of violence triggered off by the sale of public entities that the current President had promised – during his electoral campaign – not to privatise, it would be advisable for the government to start listening more to the people and to its demands than to those of the IMF, the World Bank and corporations. If they were to do so, in the case of Tambogrande, they would have recognised the evidence and ordered cancellation of the mining project, democratically rejected by the wide majority of the local population. (WRM Bulletin N° 59, June 2002).

Venezuela: Government plan endangers the Imataca forest

The Imataca Forest Reserve's native forest, located in the extreme east of the country, of imposing scenic beauty and rich biological diversity, fulfils a fundamental role in soil and water protection – of the rivers Yuruan, Cuyuni, Orinoco, Brazo Imataca, Río Grande, Botanamo, Barima, Orocaima – and is a cultural and sacred reserve for the Indigenous Peoples.

Imataca covers an area of 38,219 square kilometres, of which over three million hectares, that is to say 80% of its surface, are rainforests. Six out of each ten square metres of the territory are legally under some kind of environmental protection, but will now be affected by the Bill on the Imataca Land Planning and Use Regulation, prepared by the Ministry of the Environment.

According to the authorities, this plan limits mining activities up to (a maximum of) 11% of the area, against 38% foreseen in the previous 1997 decree. However, its critics argue that it is a frontal legalization of mining, authorizing prospecting, exploration, exploitation, processing, transformation and transportation of metallic and non-metallic minerals in a zone that – due to its extreme ecological fragility and low regeneration capacity – once intervened will be placed in the category of “forests in danger of disappearing.” Alexander Luzardo of the College of Sociologists, considers that this new regulation will affect the “right of Venezuelan society to preserve its forests in pristine conditions perpetually,” with a higher value to future generations than the immediate economic benefit.

The Final Report for Land Planning of the Imataca Forest Reserve, carried out by the Institute of Tropical Zoology of the Central University of Venezuela and the Ministry of the Environment and Natural Resources, recognized in December 2002 that “forestry and mining produce impacts on soils, water, the micro-climate, vegetation, fauna, human communities and biological diversity in general.”

Furthermore, the water-forest relationship is indivisible and the deforestation inevitably accompanying mining, interrupts protection of water and its continuous flow. This protection is vital for the future of life on the planet.

The ecologist organization Amigransa is demanding President Chavez to enforce the commitments taken on during his electoral campaign, when he publicly stated that if to remove gold, the forests had to be done away with, then they would keep the forests. This organization submits the following points:

- 1) Ratification of the Global Vision of the Bill for Land Planning and Regulation of Use of the Imataca Forest Reserve.
- 2) To propose that the Ministry of the Environment should designate a considerable area of the Imataca Forests as Imataca National Park.
- 3) To request that mining use should be excluded from the Plan for Land Planning and Regulation of Use of the Imataca Forest Reserve.

- 4) To request that Imataca should be free of mining centres and that areas that have been degraded by mining should be rehabilitated. Mining concessions and/or contracts should be rescinded and the granting of new concessions and mining infrastructure in Imataca should be prohibited.
- 5) To request a moratorium on forestry exploitation in Imataca.
- 6) To exhort the Ministry of the Environment to promote with time, a broad national discussion, with real interactive participation.
- 7) To exhort the government to conclude the Demarcation of the Habitat and Land of the Indigenous Peoples, prior to any land planning and allocation of uses in Imataca.

Amigransa states that the sustainable development of the country must be seen as an overall issue and not as a harnessing of isolated resources, asking: "Do we need to destroy the Imataca forests in order to survive?" "Would it not be better to leave this extractive profit-making policy behind once and for all, as with this Plan Imataca would be subject to savage mining and forestry exploitation? The handing over of this Territory covering nearly 4 million hectares to national and transnational logging and mining companies, warrants a broader national discussion, active and protagonist participation, much analysis regarding the kind of development we want, how we want it and where we want it." (WRM Bulletin N° 75, October 2003).

OCEANIA

Papua New Guinea: From Australia with cyanide

Indiscriminate logging has been the main cause for the decline of Papua New Guinea's rainforests, that the government has been unable to stop in spite of the announced moratorium on the activities of timber companies. Unfortunately, this is not the only depredatory economic activity that affects the country's forests. Mining is also producing important impacts at the local level. For example, Freeport-Rio Tinto's mining operations at Ajkwa River's watershed has had severe effects

on the environment and the level of mercury in this river is four-times higher than the maximum allowed. Local communities are strongly opposing this kind of activities as well as the attempts of Freeport to bribe them with “development” projects.

A new case of pollution produced by a mining source was denounced in March 2000. Responsible is the Australia-based company Dome Resources. Last March a box containing 150 kg of sodium cyanide balls fell accidentally from a helicopter of the company, which was flying from Port Moresby to the mine of Tolukuma, and ended in the deep forest. Even if the company tried to minimize the potential effects of the accident by announcing that 70% of the balls were recovered, it is clear that the impact of the cyanide drop on the hydrographic network has been very important. Professor Kirpal Singh of PNG University warned that cyanide completely spoils freshwater, making it useless for drinking and as habitat for fish. It is even feared that communities living nearby the place of the accident might consume poisoned water. The whole area of rainforest will be affected by the presence of high concentrations of this heavy metal in water and soil.

Dome Resources has argued that this is the first time such an accident has happened in PNG. Nevertheless, a water analysis performed last year seven kilometres downstream Tolukuma mine revealed high levels of toxic metals such as copper, lead, zinc, mercury and silver. Such levels were significantly high even 20 kilometres away from the mine. Geoff Evans, Director of the Mineral Policy Institute, in Sidney, clearly stated that Dome’s practices were unacceptable according to Australian standards. The precautionary principle seems to be something unheard of by the company.

This can be considered one more case of abuse resulting from the activities of a powerful foreign company in a Southern country which sees foreign investments with good eyes but at the same time finds difficulties in implementing effective control on the use and conservation of forests and waters. In the meantime, it is local communities who suffer the consequences of such kind of practices. (WRM Bulletin N° 34, May 2000).

Papua New Guinea: The power of mining corporations

Mining operations in Papua New Guinea (PNG) are part of the IMF backed policy which opens the country to foreign investments for the unsustainable export-driven exploitation of natural resources. The serious record of mining activities includes flooding of forests and homes caused by the dumping of waste rocks and levels of mercury in the Ajkwa river four-times higher than the maximum allowed of 0,001 mg/l.

And now, once again, the power of big companies is being felt: mining-related legislation (the Ok Tedi Mine Continuation Act and the associated Community Mine Continuation Agreement) endorsed by the PNG government has caused an uproar in the environmental and human rights communities. They claim that this will enable BHP and Ok Tedi Mining (OTML) – a consortium led by Australia-based BHP Billiton – to circumvent responsibility for environmental damages in the western province of PNG.

According to a summary provided by Slater and Gordon, an Australian law firm which has filed a lawsuit against the company, the agreements will give the consortium unrestricted legal indemnity for the pollution and destruction caused now and into the future by the operations of the Ok Tedi mine. OTML will have no obligation to stop tailings entering the river system in future, and will be permitted to increase the amount of copper it is currently permitted to dump into the river system.

The Mine Continuation Agreements will release BHP & OTML from any liability in the current Victorian Supreme Court proceedings in Australia. Landowners will also lose their common law rights to enforce a 1996 settlement as well as any future legal rights to sue OTML for any damage or environmental catastrophes.

The Supreme Court of Victoria, Australia, extended an interim injunction to block Ok Tedi Mining Ltd from signing landowners to Mine Continuation Agreements. The PNG government claims that 138 of the required 149 villages have already signed the agreements, but OTML is being accused of handpicking people to sign on behalf of their villages. The Mine Continuation Agreements signed by any member of a village with or without proper authority would be binding on other members of that village.

The Ok Tedi mine is seen as a national asset by Papua New Guinea's Prime Minister Sir Mekere Morauta and the government believes that closing the mine would devastate the national economy. The mine accounts for 10 percent of the country's gross national product and 20 percent of total exports. The decision taken therefore implies that the government considers that devastating the environment and local peoples' livelihoods is but a minor "cost" within the overall economy.

But those costs are huge. According to the Australian Conservation Foundation, nearly 70 kilometers of the Ok Tedi River has become "almost biologically dead," and 130 kilometers of riverbank have been "severely degraded." Fish stocks have declined between 50 and 80%, according to OTML's own internal report while some 30,000 downstream landowners have lost their ability to live off their own land. Additionally, an OTML scientific Peer Review Group identified the potential for a total collapse of the fishery.

Gabia Gagaramabu, the South Fly Member of Parliament describes the decision taken by the government as a disgrace. "The Bill is typical of the way BHP has dictated terms to the PNG Government ever since it came to Papua New Guinea." As in elsewhere, the bill is proof of the power of transnational mining companies. (WRM Bulletin N° 54, January 2002).

Papua New Guinea: Women's rights undermined by Placer Dome gold mine

Misima Island is situated in the Louisiade Archipelago in Milne Bay Province, Papua New Guinea. The island is 40 kilometres long and 10 kilometres wide at its broadest point, and is covered in lowland hill rain forest except for the coastal zone and the foothills which have been cleared for cultivation and replaced by woodland.

With a subsistence farming community of approximately 14,000 people, Misiman society is divided into clans, and membership of these clans is matrilineal. Women traditionally inherit and own land, although senior men retain authority over some areas. It was into this environment that the Canadian-based Placer Dome company introduced its gold mining operations.

In December 1987, a Special Mining Lease for 21 years had been granted to Placer Pacific (now Placer Dome Inc.) and construction of the mine began in 1988. Declared officially open in 1989, the Misima mine is a conventional open-pit mine.

The introduction of mining into Misima involved the purchase of vast tracks of land and resettlement of communities previously living on this land. Social values have rapidly changed since 1989, facilitating the breakdown of traditional social structures and the growth of a prominent generation gap, both of which negatively impact on women.

The company engaged men in the resettlement negotiation process, excluding the traditional landowners – the women. Prior to mining, women held a relatively high status and prominent role in public life due to their central role in land ownership and food production for both the living and offerings for the dead. Thereafter, their status, independence and role within the community has been undermined.

Mining has directly and indirectly provided employment opportunities for a large majority of the Misiman men living on the eastern tip of the island and a number of 'expatriate' Misimans. Misiman women have found their traditional power base supplanted by the power of cash, which can be acquired and disposed of without their involvement.

The increase in the cash economy has also created divisions between women. Some wives of wage earners employ other women to tend to their gardens, which results in the distribution of cash within the community, but at the same time diminishes the status of these women in the eyes of other Misiman women.

Many women whose husbands are wage earners no longer create large gardens because the men are unavailable to assist in garden activities, especially the clearing of land, and also because they can buy food with the money earned by the men. However women, especially those not engaged in the cash economy, are placed under increasing pressure to maintain these gardens due to the reduced availability of food trees as a result of extensive land clearance.

The island's environment is widely perceived to be polluted by mining operations. Residents complain about the taste and health of fish and

the decreasing water levels of the rivers. Some women are disinclined to go to the rivers to bathe, wash clothes or prepare food because of low water levels and the discolouration of the water after rain, which they perceive to be evidence of pollution. Women report that the quality of the water is so poor that they can no longer drink it. Some women feel that this jeopardises their own and their babies' long term health.

Social problems including excessive alcohol consumption have arisen due to the increased availability of cash. As is the case in most places of the world, it is women and children who bear the brunt of the impact of alcohol abuse.

The company's initial response to issues raised was to employ a limited number of women for secretarial, administrative, clerical and cleaning work as well as to support local women's groups and businesses, and ensuring that women were represented on committees such as village liaison groups and the Social Impact Study (SIS) Status Review Committee. However, some of these mechanisms were not conducive to women's participation beyond their attendance at meetings. Having a position on a committee does not automatically mean that they feel able to speak, to be heard, or to affect outcomes. Participation does not automatically include those who were previously left out of such processes and is only as inclusive as those who are driving the process choose it to be, or as those involved demand it to be. Male dominance within the government, and amongst Misima's community representatives, also contributed to effectively denying women their rights.

As is often the case, and despite any efforts, many of the social, cultural and environmental costs of a mine are not readily apparent until development begins. At this time the local people began to experience first hand the unexpected change in their lifestyles owing to the sudden participation in cash economy, the abrupt influx of outsiders needed to construct and operate a mine, environmental damage due to waste rock and tailings discharges, and even dietary imbalances as food prices skyrocketed.

The mine will cease operations in 2005. The closure will pose further unprecedented problems for the Misima people. Business closure, loss of employment, decrease in transport alternatives, inaccessibility of

shop food, loss of electricity and the degradation of buildings and infrastructure are just some factors that the community may face.

However, the extent to which the Misima will be able to return to their traditional practices has been negated by intergenerational disputes and loss of traditional values. The fundamental shift in the status of women and their unique relationship to the land is unlikely to be regained after the closure of the mine, with repercussions for generations to come. (WRM Bulletin N° 71, June 2003).

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