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APWLD is a women's human rights network of over 150 lawyers, social scientists, grassroots women and activists from 23 countries of Asia-Pacific.



Mining and Women in Asia: Experiences of women protecting their communities and human rights against corporate mining

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Asia Pacific Forum on Women, Law and Development (APWLD)

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ISBN: 978-611-90030-1-9

Asia Pacific Forum on Women, Law and Development (APWLD)

APWLD is an independent, non-government, non-profit, regional women's human rights network of 150 members in 23 countries of the Asia-Pacific region committed to enabling women to use law as an instrument of social change, equality and development.

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Design layout: Darawan Printing Ltd., Part.

Printed by: Darawan Printing Ltd., Part.

Published by the

Asia Pacific Forum on Women, Law and Development (APWLD)

Girl Guides Association Compound

189/3 Changklan Road

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Thailand

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This publication is supported by **Sida, the Swedish International Development Cooperation Agency**

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For an indigenous woman who depends on land for survival, she cannot be immune from the issue of large corporate mining. A peasant woman cannot be mum about the mining operation even if her community is mountains or valleys away, as her produce is poisoned by an irrigation system contaminated by mine waste. A woman working as an overseas migrant worker may not have a homeland to return to when mining operations take over her community. A woman in a fishing community where mine tailings are drained does not only lose fish on her table but she also gets afflicted with diseases and children are born with abnormalities. A woman from the city who has not even seen a real mining operation but who is concerned of the wide-range impact of mining and the patrimony of her country where corporate greed over-runs the interest of the majority of her compatriots. A woman belonging to a country which owns huge mining corporations operating worldwide mostly in the third world, shares solidarity with women and their communities affected by her country's mining operations.

At the end of the plunder are huge pits, a degraded environment, an ever hungry community, an irreversible damage. There remains no example of a successful post-mining rehabilitation, at least in Asia. Agriculture still contributes higher income to national economies as compared to mining.

This book is a product of the Food Over Gold campaign of the Women and Environment Task Force (WEN TF) of the Asia Pacific Forum on Women, Law and Development (APWLD) launched in 2005 as part of APWLD's programme on Women's Food Sovereignty. The contents are results of mining fact-finding missions, for-discussions on women and mining and an Asia study session on women and mining conducted by WEN TF. The book may not have covered extensively the mining situation in the Asia-Pacific region and we acknowledge that as a limitation. On the other hand, I believe that the presentation papers encompass the mining situation in the region in terms of peoples' resistance, common experiences, impact and enforcement of national mining laws within the framework of liberalising the mining industry.

The WEN TF of APWLD with membership from Bangladesh, Cambodia, Korea, India, Indonesia, Mongolia, the Philippines and Thailand, dedicates this book to the women who are peasants, indigenous, herders, fishers to whom the Task Force members had valuable discussions with and partnerships on the issue of women, mining and food sovereignty. We also share this book with other women of Asia-Pacific and the world who are in similar struggles. We hope that this book will be an added inspiration and a resource to complement positive actions of women elsewhere in saving communities and the environment from the ravages of large corporate mining.

This is our contribution to upholding women's rights to land, natural and food resources and livelihood which are the essence of food sovereignty. This is our contribution in fighting neo-liberal globalisation. This is a proof of women's solidarity.

Vernie Yocogan-Diano
Convenor, Women and Environment Task Force, APWLD
Chairperson, Innabuyog, regional alliance of indigenous women's
organisations in the Cordillera Region, Philippines

Introduction

Gold does not usually glitter for women whose livelihoods are greatly affected by large-scale corporate mining. This statement is reverberated by indigenous women, peasant women, herders, fisherfolk and other communities whose sources of food and livelihood are threatened and destroyed by mining operations. These operations have flattened mountains, destroyed forests, polluted and even poisoned the land and water resources. There is no doubt that large-scale corporate mining is also contributing to the global warming indirectly affecting the lives of rural and indigenous women as well as directly exacerbating the deteriorating situation due to the impact of climate change rural and indigenous women have been struggling with. With this explicit, devastating impact of mining on the environment in the Asia-Pacific region, members of the Women and Environment (WEN) Task Force (TF) are more challenged to identify negative impacts of mining on the people, particularly rural and indigenous women in the communities which transnational mining companies have invaded, and raise the concerns that women and their community members speak about.

Despite this bleak picture, most governments all over the world, and specifically in the countries where members of the WEN TF come from, are aggressively promoting the mining industry and supporting the interest of transnational mining companies over people's rights to resources and the environment. This is within the framework of liberalising the mining industry which the World Bank (WB) pushed in the early 1990s. Most Asian governments acceded thus enacting mining liberalisation laws and enabling national mineral policies to benefit mining corporations by granting them wide incentives. This is also a quicker way for the governments to increase gross domestic product (GDP) and foreign currency to meet the conditionality attached to the WB's lending. It has been pursued by heavily sacrificing people's land rights and access to natural and food resources on which rural women, their families and communities rely for their survival.

With the entry of transnational mining companies in the developing countries, food sources have been depleted. Various experiences of rural communities have proven that large-scale mining operations, particularly gold mining, have caused irreversible damage to the environment despite claims of "responsible mining and sustainable mining practices" by mining corporations. Mountains which serve as watersheds, source of food and wood for households have been turned into open pits. Lakes and rivers which are sources of irrigation and food are poisoned and heavily silted by mine tailings. Gold mining utilises toxic chemicals, such as cyanide, large quantities of water, and high levels of energy. These have devastated community livelihoods and have huge implications for food production and survival of communities.

Women and Mining

Women as informal small-scale miners, or women running small-scale businesses in the service sector in mining communities, or local women engaging in agriculture, herding or fishing, are affected by mining differently than their male counterparts. This is due to existing socio-economic disparity between women and men, which is a cause and

consequence of unequal power relation historically constructed at home, in the community and in wider society. Persistent patriarchy in social systems, and current global political economic paradigm, neoliberalism, influence and intensify the unequal gender relations.

The key issues which impact women disproportionately due to mining operations in their communities are summarised below. These include health, economic burden and security.

Health

Water pollution disproportionately affects women's health. As small-scale mine workers, division of labour assigns women to panning using water, exposing them to the polluted water and difficult working conditions as they may have to stand bending down in the streams for long hours. Women working on farms or engaged in fishery are exposed to contaminated air and water with toxic substances from the mining operations for long hours every day. Women are also expected to be responsible for gathering water, preparing meals, washing dishes and clothes and bathing their children, making them more exposed to polluted water. It is well documented that exposure to toxic substances is extremely dangerous for pregnant women.

Mining sites are often located far from town centres. Women small-scale miners residing at mining settlements and local women living close to mine sites are often disadvantaged in their access to information, social and health care services. Women's traditional roles include attending to family health. Any adverse health condition experienced by the family adds to women's workload, sometimes to the point of ignoring one's own health problems. Health care costs for their family members are additional burden for women.

Lack of access and knowledge of protection from sexually transmitted infections and diseases (STI/Ds), poverty and traditional social norms that deprive women of control over their sexuality, make women more vulnerable to STI/Ds including HIV/AIDS. The high risk of sexual harassment and rape by security guards or military personnel around mining sites also increases women's vulnerability.

Economic burden on women

Mining operations destroy people's livelihood and deteriorate their food security: people have lost agricultural lands and forest resources due to land grabbing, destruction or pollution by mining operations; their livestock have been affected through poisoned water and grassland; and pollution in rivers and sea water has devastated surrounding fishing communities. Women, as they are often responsible for managing scarce resources to feed their families, have to look for additional sources of income to make ends meet. They may have to go far to town centres to get jobs in the informal sector, bearing the chances of exploitative conditions, which make women more vulnerable to abuse and violence.

Traditional gender roles assign household and family responsibilities to women. In an adverse situation, they increase women's workload and add the burden of managing scarce resources for their families. Women also engage in informal subsistence farming or fishing. Those roles and much of women's work are not recognised within the current neoliberal economic system which places primary value on paid labour. It marginalises the roles and responsibilities of women and excludes them from any benefits of economic development. While rural women are the mainstay of small-scale agriculture and fishing, farm labour force and day-to-day family subsistence, they have more difficulties than men in gaining access to resources such as land, credit and other inputs and services.

Security concerns

Some of the serious concerns of the effects of mining are violence, intimidation, threats posed to the local people, particularly those who protest the mining operations. These violations are mostly committed by security guards, police and/or military protecting mining companies. Some mining companies hire armed security personnel or are protected by the military of the host government such as the Philippines where the government has set up an Investment Defense Force "to protect vital infrastructures and projects from terrorists". The people who raise their voices in protest against the destruction of their lives and livelihood from mining operations are labeled as dissidents or even terrorists. Violence, sexual harassment and abuse, rape are used to intimidate and establish power over the community. Women are particularly threatened and vulnerable to such violations and abuse especially when they go to protest, work in the field, fetch water, firewood, bathe children.

More stressful daily life struggles with deteriorating living conditions due to the negative impact of the mining, and uncertain living situations losing the primary livelihood, trigger the manifestation of unequal power relations between women and men. Such stressful living conditions are seen as an excuse for men to resort to domestic violence. Women suffer physical and physiological trauma from violence committed in the home, which decrease women's physical and mental capacity to cope with the difficult living conditions. Women then further become susceptible to illness or vulnerable to further violence. Violence sometimes leads to rape, where women fall victim to both sexual abuse and STIs.

Migrant small-scale women miners may experience sense of insecurity residing in unfamiliar, remote mining sites by themselves, leaving their families behind. The local women also face increasing insecurity due to the entrance of the new industry which is destroying their source of livelihood, amounting to destroying their rural social system, way of life, value systems as well as shaking up their confidence and identity.

Despite these adversities faced by rural and indigenous women, their needs, priorities and contributions are significantly under-represented in policy making and other consultation processes.

Women are historically excluded from official consultations and other decision-making processes. One of the obstacles is women's lower educational attainment, due again to a

patriarchal social system where boys are given priority over girls in education. Adversely affected by mining, women's increased roles and responsibilities for their family, such as additional income generation activities, increased household chores and taking care of sick family members further prevent women from attending and participating in the negotiation processes. These render women's voices mute in the consultation and negotiation processes, right up to exclusion from entitlement to compensation payment and other social services. An enabling environment for improving the situation of rural women and political and socio-economic empowerment of rural women to support their full and equal participation in decision making at all levels have been widely missing.

Food Over Gold Campaign

The WEN TF of APWLD launched the Food Over Gold Campaign in 2005 as part of APWLD's campaign on Food Sovereignty responding to the heightened aggressiveness of mining corporations. The campaign aims to highlight the impact of mining on women as one of the biggest threats to their food sovereignty. The campaign highlights the destruction of land, water and forest as food sources by the large-scale commercial gold mining; and contribution of gold mining to further impoverishment and hunger. The campaign looks into the current situation of large-scale gold mining operations in emerging host countries within the region, and the impact on the food production and hunger situation of the communities in these countries.

Fact-Finding Missions (FFM) in Thailand and Mongolia

Under the campaign, the WEN TF conducted fact-finding missions on gold mines in Thailand and Mongolia in 2006 and 2007 respectively. In Thailand, the gold mine in Loei and surrounding villages were visited. In Mongolia, FFM was carried out at five sites in which major Mongolian and foreign mining companies operate. Each fact-finding mission was followed by a national forum to share the findings of the mission and experiences of TF members in their respective countries, including the Philippines, Cambodia and Indonesia. The forum also discussed various strategies of actions with local groups working on the mining issue.

The missions both in Mongolia and Thailand identified the direct and indirect impacts of mining operations from various perspectives. They assessed the impact on a whole village as well as communities, families and women, particularly in the context of environment, health, food production and livelihood. The main findings show that women suffer both direct and consequential impacts. Toxic chemicals from mines pollute the land and natural resources for food production and women's health particularly burdening pregnant women. These impacts cause further economic difficulties on women. The end results are hunger and poverty, interrupted girls education, among other as well as and in many cases ultimately migration. The conventional role of women in family, community and society burdens women more in disaster situations. These include multilayer of burdens faced by them due to poverty, existing inequality on the basis of gender and socio-economic status, exacerbated by pollution and displacement as a result of mining operations. Destruction caused by mining is far-reaching and immense especially if mining firms dump their toxic mine wastes in rivers or water systems,

affecting not only the immediate surrounding communities but reaching far wider areas.

Another report from Mongolia focuses on small-scale women miners (called “ninjas”) in gold mines and shed light on the specific situation of small-scale miners from a gender perspective.

Asia Study Session on Women and Mining

All these findings were consolidated and brought to analysis at the Asia Study Session on Women and Mining held on July 18-19, 2008, at Baguio City, the Philippines. The study session was hosted by Innabuyog, the convenor of WEN TF, and the Cordillera Women’s Education Action Research Centre (CWEARC), a local women’s NGO. It was attended by women community activists from Cambodia, Philippines and Thailand, as well as WEN TF members from Mongolia, Bangladesh, Cambodia, Thailand, Korea and the Philippines. A woman parliamentarian from the Philippines introduced legislative actions on mining issues, which encouraged participants to continue their advocacy at the governmental level.

The Study Session started with the presentation on the international developments on mining and the challenges for women presented by Frances Quimpo, Executive Director of the Centre for Environmental Concerns-Philippines and a founding member of the WEN TF. Her presentation highlighted the positioning of global mining giants in the world and the imposition of their power through national mining policies. Global mining giants such as BHP Billiton (Australia), Rio Tinto Zinc (UK), CVRD (Brazil), Anglo-American (SA/UK), Barrick Gold (Canada), Alcoa (US), CRA (Australia), Alcan (Canada), Placer Dome (Canada), and Western Mining (Australia) enjoy their entitlements and incentives granted through laws and policies favouring the mining transnationals in the host countries and exploit the world’s remaining minerals. These mining giants belong to countries which also dominate the world’s economy.

Presentations by TF members from Cambodia, Mongolia, Thailand, Bangladesh, Philippines and Korea spoke of concrete threats to rural and indigenous women and violations of their rights to health, food, water, and other human rights based on their daily experiences. They also disclosed how national mining liberalisation policies have undermined the national sovereignty and welfare of peoples.

The report by Nijera Kori, Bangladesh described the problems caused by the open-pit coal mining operated by Asia Energy Corporation (Bangladesh), a subsidiary of UK-based Asia Energy PLC, in Phulbari region of Bangladesh. Among others are eviction of local residents in the region, huge consumption of underground water, and unclear rehabilitation and compensation schemes by the company. The report shared at the Study Session on how the people of Phulbari, Bangladesh were mercilessly killed and injured when security forces of the Phulbari Coal Project opened fire at protestors; this tragedy was only one case amongst many of ruthless attacks by mining corporations and states to people asserting their rights and survival.

The presentation of Banteay Srei of Cambodia showed the gaps between the legal framework and its implementation. Despite laws set forth to regulate the mining operations, protect the environment and undergo natural resource management, executive and monitoring mechanisms are weak, which ignores the pollutions from mining companies. It also reveals that militaristic response from the mining companies is one of the major threats to the local people.

Korea Federation for Environmental Movement (KFEM) presented the huge impact of cement production on the environment and people's health caused by the toxic substances used and emitted in the production process. It also shared various recommendations to the government put through active engagement with civil society issues.

Mongolia presentation provided by Centre for Human Rights and Development (CHRD) emphasised that in the context of open market policy, where farmers have already been devastated by the influx of cheap import of agricultural products, environmental degradation due to the mining makes them more vulnerable without adequate mechanisms from the government to support and compensate farmers. Farmers have been facing inflow of cheaper imported agricultural products, which consists of 70-80 percent of the entire consumption in Mongolia as a consequence of open market policy. The presentation also introduced civil society responses actively organising themselves as "The Responsible Mining Initiative for Sustainable Development" to monitor the mining companies on their legal obligation and environment, and "People's Coalition for Food Sovereignty" for intervention at policy and legislation levels as well as awareness-raising among civil society.

Loei Foundation for Conservation and Sustainable Development in Thailand presented the case of Phuthapfa gold mine in Loei province of Thailand. The report revealed the poor standard of the equipment and operation, which resulted in irreversible impact on the environment and villagers. It also reported that lack of accountability among the governmental officials hinders people's access to information related to mining operation.

Three presentations made by Innabuyog, Kalumaran (Strength of the Indigenous People of Mindanao) and BAI, national network of indigenous women's organisations in the Philippines stressed that indigenous women and their communities have become victims of various human rights violations committed by the government and mining companies. They are eager to secure the smooth entry and operations of mining companies using militaristic and violent measures to suppress the local protests. Mining applications and current operations are spread over 66% of the country's land area. Of the 24 national mining priority projects, 18 are located in indigenous peoples' territories.

Representative Luzviminda Ilagan of the Gabriela Women's Party list shared the legislative actions and initiatives taken by progressive parliamentarians in the Philippines. The move to repeal the Philippine Mining Act of 1995 is meeting stiff resistance among mining corporations and their allies in both Senate and Lower House of the Philippines. "The sustained local and national resistance to large corporate

mining are a clear position of women and the people in defense of livelihood, rights and survival, and this is what the Philippine Senate and Congress should support,” was Rep. Ilagan’s message.

The recommended actions shared at the end of the Study Session include continuing education, advocacy, and awareness-raising campaigns on the mining issue and human rights, and conducting fact-finding missions and public inquiries to collect data, as well as creating fora to exchange experiences and best practices of women’s organisations to combat mining at the regional level.

The cultural presentations of the Cordillera youth through the Dap-ayan ti Kultura ti Kordilyera (Centre for Cordillera Culture) complemented and rendered a visual influence to the messages on how indigenous women in the Cordillera stood to defend their land and resources from mining corporations. These young alternative cultural activists use songs, dances and performances to illustrate the struggles of indigenous peoples in the Cordillera. Some of them are products of the struggle against the open-pit mines of the Benguet Corporation.

Completing the study session was the community visit to Itogon, a mined-out area, dug for its gold and copper resources for almost a century. For the participants, it was a proof of corporate greed and plunder in collusion with the state. The stories of women on how they joined the resistance and positioned themselves in the frontline of barricades against the expansion of the open pit operations of the Benguet Corporation (BC), was the bright and inspiring side. The women’s role in the struggle against the open-pit expansion of BC is already etched in the history of Cordillera women’s struggle and the experience is retold for other women to draw inspiration. It is an experience of women’s passion of defending their survival and dignity.

Objectives of the report

This report aims to: illuminate the problems of mining, which are common to most mining operations in the region, and the impact of those problems on the communities and women in particular; expose the gaps in and between national legal frameworks and their implementation; expose militaristic responses from the mining companies and the governments to the protests by the people; share the struggle and strategies of the communities to deal with all direct and indirect impact on their lives; and suggest further actions to protect environment and communities by strengthening networks of people.

This report also aims to be as tool for advocacy at national and regional levels. It also aims to inspire further innovative strategies in raising awareness on the various issues in relation to mining among wider civil society at regional and international levels.

Part I

Fact-Finding Mission Reports

Thailand

Negative Impacts of Phuthapfa Gold Mine, Loei Province, and People's Opposition

Watcharapon Wattanakum

Loei Foundation for Conservation and Sustainable Development, and
Loei Civil Society

Suntaree Saeng-ging

NGO Coordinating Committee on Development (NGO-COD), and
Northeastern Women's Network

I. LEGAL FRAMEWORK AND POLICY ON MINING IN THAILAND

The northeastern part of Thailand is abundant in natural resources including minerals and ores, forests, plants and wild animals. In particular, Loei province has many kinds of important minerals and ores such as gold, potash, iron, and the like. Apart from Phuthapfa gold mine, there are many legal and illegal iron mines and rock crushing mills operating in the province.

The constitutions of the Royal Kingdom of Thailand version 1997 and present version 2007 specified that big projects that have impacts on the environment and communities must undergo public hearings. As well, the Environment Act A.D. 1992 specified that, as a condition for operational permission, big projects that may have impacts on environment must undergo environmental impact assessment (EIA). However, in reality, there are still many practical loopholes that enable big projects to operate even though they are not welcomed by communities or have negative impacts on the environment.

The big problem lies in the direction of hadational development that stresses on economic growth. Thailand is a country that has had a mining industry policy for more than 50 years. This is because successive Thai governments have believed that dependence on mineral resource and the mining industry will result in high economic growth. However, in reality, countries which had developed mining industry do not necessarily demonstrate high economic growth.¹ Minerals are exhaustible and harvesting minerals for sale only has short-term impact on economic growth. In particular, it gives no answer to longterm sustainable development.

II. THE MINING SITE

Background information on the mining site

The Thai government permitted the survey of gold in Loei province in 1992-97. The Tungkam Co. Ltd. received a concession for the first batch of gold mineral survey for the

¹ During 1990-99, all countries that had mineral resources as economic conductors or as significant to economy had an increase in per capita income of 0.7 - 2.3%, while during the same period, the developing countries had an increase in per capita income by 1.7%, reported by Dr. Decharat Sukkamnoed, Faculty of Economics, Kasetsart University, "tukkhalab chak muang rae kab kan phatthana thi yangyuen: chod thi yang mai mi kham tob" (mining suffering windfall and sustainable development: question that remains unanswered), seminar document.

period of 25 years, due to expire in 2027-28. This concession covers six plots that covers the total area of approximately 30,000 rai.² Originally, the company requested for 120 plots. The area of Phuthapfa, Khao Luang sub-district, Wangsaphung district where the company is doing mining now marks plot no. 4 (out of the six plots).

The area of Plot 4 Phuthapfa concession is as follows: Northern area: This is the Phuthapfa area that consists of high hills, has a lot of gold veins, and is the mining-opening area. Its height is approximately 300 metres above sea level and approximately 300 metres away from Lam Huai Huai (branch stream of Loei River).

Eastern and southern areas: In these areas, there are inter-mountain plains. There is also a public stream called Huai Phuk (branch-stream of Huai Huai). During dry season, the water in this stream is very minimal. On these plains, the villagers grow rice, soybean, and upland crops such as different kinds of beans, corns, etc.

Western and southwestern areas: In these areas, there is a small stream that villagers call "Sam Pu Ta" and "Sam Pa Bon". At present, it has been turned into an outlet that runs through the central part of Tungkam Co. Ltd's concession area.

Through these areas are overlaps of national conserved forest and Khao Luang sub-district's land for public use.

The Tungkam Company was granted a concession certificate for the Phuthapfa gold mining operation for a period of 20 years. The company completed the construction and installation of machinery in May 2006. It started its commercial production in September 2006. Its average production capacity is 1,200-1,500 tons per day. In 2006, the company brought 174,763 tons of mineral into production process.

Production technology: The Phuthapfa gold mine has used open-pit method. Along the vein, from northeast to southwest, mine pit was dug in a terracing manner. After the digging and bursting of minerals in the mine pit, the produce is transported to a metallurgy plant. The minerals are then thoroughly ground and undergo the carbon-in-pulp (CIP) process. As for the slag that is produced, it will be brought into the thickener that separates slag sediment from water. When the sediment has been separated from water, the water will be transported to be kept in the process water tank for re-use. As for the slag sediment, it will be transported to detoxification tank for cyanide treatment. After this process, the level of remaining cyanide elements in the mineral sediment must not exceed two milligrammes/litre. Then, the mineral sediment is transported, through pipes, to slag collection pond, of which the dam-ridge shoulder is covered with high-density polyethylene sheets, for sedimentation. The water in the slag collection pond will be pumped up to be reused in mineral processing once again.

Problems from Phuthapfa goldmine's production technology and process

1. The pond for collection of sediments and waste water from mineral processing was constructed over "Sam Pa Bon" from which springs flow throughout the year. This

² 1 rai equals to 1,600 square metres.

natural stream is a branch of Nam Huai which is a branch of Loei River. This is while Article 63 of Minerals Act B.E. 2510 (A.D.1967) prohibits a holder of concession from any obstruction, destruction or action against the benefit of public road or waterway, unless the holder is granted with license from local mineral resource authority. The article also requires the holder to comply with conditions established in the license. With existing information, it appears that Phuthapfa gold mine is not permitted to obstruct or change any waterway. As well, in the EIA report, there is no mention of the tailings pond obstructing this waterway.

2. The standard of quality of waste water from metallurgy plant particularly amount of cyanide was changed from original 0.2 ppm to 2 ppm. The increase was by 10 times. This is higher than Factory Act's industrial factory waste water standard and Environment Act's environmental quality standard. And, in practice, at Phuthapfa gold mine, it is found out that the presence of cyanide in waste water from the gold mineral processing plant is higher than 2 ppm. This is regarded as inefficient production system.

3. Explanation no. 1.3.3 on handling of cyanide contaminated slag and metal as per item b) emergency case, on page 7 of additional version of environmental impact analysis report, specifies that the mine must stop its operation and be improved to achieve standard and safe production system. Now the mine is already in an emergency condition but related organisations and authorities have not yet acted on what is specified in the EIA report.

4. Provincial Industrial Office's note on investigation dated May 16, 2007 reveals that Tungkam Mine has the following technical shortcomings in meeting the official standard:

- Management of polluted substance and contaminated objects from used cyanide packages.
- Cision and sulfide stratum soil heap management area and water release waterway surrounding heap collection area.
- As per EIA, dam-dike is not appropriate.
- Overflowing cyanide dissolution tank and produced cyanide treatment tank.
- Number of waste water treatment ponds.
- Water release detour surrounding slag collection pond.
- Foundation-laying, crushing and packing, and use of leak-prevention materials.
- Construction of drainage surrounding metallurgy plant.
- Water release system in front of the mine.
- Intensity of cyanide released from detoxification tank exceeds established criteria.
- Covering the side of slag collection pond with plastic.

Mining companies

Tungkam Co. Ltd., is an affiliate of Tongkah Harbour Public Co. Ltd. Tungkam Company registered in 1991, 98.86% of the shares in Tungkham Co. Ltd. belong to Tongkah Harbour PCL, while the rest belongs to Cholsin Co. Ltd.

Tungkam Company received the loan of 13 million US\$ from Exim Bank and BankThai.

By December 31, 2006, Tungkam Company was able to produce and sell 12,364 ounces (354.10 kg.) of gold. Its income from the selling of gold was 269.47 million Thai baht³, and, since operation, earned a profit of 59.76 million baht. This resulted in the profit of 6.09 million baht for Tongkah Harbour Company.

It is expected that during the initial period of the concession that lasts 20 years, counting from the date of permission, the Phuthapfa gold mine will be able to produce 90% pure gold by approximately five tons at maximum, with total value of 2000 million bahts. The Thai government will receive a gold royalty share of 2.5%, approximately 50 million baht. And, if the mine has operational period of 10 years (cost-effective investment period), 40 % of the share will be allotted to the central government, 20% to Sub-district Administrative Organisations (SAOs) in Loei province, 20% to the area-owner SAOs, 10% to Loei Provincial Administrative Organisation (PAO), and 10% to SAOs across the country.

Phuthapfa gold mine has only small employment. Only 100 local workers receiving the minimum wage of 160 baht per day have been hired. As well, approximately 100 workers who are not local people work as technicians and on other kinds of jobs. In addition, only five to six women are sub-contracted and earn income from preparing food for mine workers.

The company's administrators of whom three were past Secretary-General of the Department of Primary Industries and Mines and one was past General of Thai Army have always said to the people, communities and mass media who came to the area that responsibility for environment is a policy of the company. They also said that after the completion of the mining, to compensate for society, the company will develop this area to become resorts, forests or golf courses to serve as tourist sites.



³ 1 US dollar is approximately 34.05 Thai baht (June 2009).

Communities around the mining sites

Phuthapfa is an inter-mountain plain in Khao Luang sub-district, Wangsaphung district, Loei province, and two km. away from Nanongbong village. Some part of it is Pa Khoak Phu Lek national conserved forest. Some parts are classified by the Agricultural Land Reform Office as land reform area. Villagers have used this land reform area for agriculture and collection of forest resources.

Khao Luang sub-district consists of 13 villages. Its population engages in agriculture, rice cultivation and post-rice harvesting, soybean growing. In the past five years, the villagers started to grow rubber trees.

Women serve as families' important labour force for rice cultivation and soybean and rubber trees growing. As well, they have specific activities such as food preservation, weaving, etc.

The mine-opening, mineral processing plant and slag collection pond are all located in close proximity to the villages. Six villages have been affected by the operation of Phuthapfa gold mine. One of the six is Nanongbong village which is a small village resided by 40 families. This village is adjacent to and only one km. away from the operational area of the gold mine, and so is the most affected village.



III. FACT-FINDING MISSION BY WEN TF, APWLD

Background of the visit

The fact-finding mission was conducted on November 20, 2006 organised by Sustainable Development Foundation (SDF) and the Women and Environment Task Force (WEN TF) of the Asia Pacific Forum on Women, Law and Development (APWLD) with the help of Loei Foundation for Conservation and Sustainable Development.

It was very revealing that after almost five years of presence of the Tungkam Mines in the province, it was the first time for the local groups such as the Loei Foundation to visit the site.

A week before the activity, there was information relayed to APWLD that the fact-finding visit had to be cancelled. The reason was not clear. A numbers of reasons were relayed: due to political situation the community is not ready to meet with foreign activists and the company is not happy.

The governor went to visit the site a week before the APWLD team planned to arrive. It was the first time the governor went inside the mining site although it was there for more than four years. After the governor's visit, the permission to visit the site and the community was given to the APWLD and SDF team. Reason was that the governor was not satisfied with what he saw during the visit and so wanted to find out more about the impact of mining.

In 2005, the previous year of the visit, tailings dam overflowed, and the waste from the dam flowed on the rice fields, thus affecting some communities. The permanent secretary-district official did not permit the mission team to visit the primary affected community. Only the community located two km. from the site was visited.

After the visit, there was a public forum at which community members from Udonthani, where people have been protesting the potash mining, attended. It was a defining moment because for the first time, people opposing gold mining in Loei and potash mining in Udonthani met in a forum to discuss the situation and share strategies.

The field visit and the forum for sharing with community leaders resulted in communities' greater recognition and awareness on the impact of mining. In addition, the sending of the formal letter to the governor of Loei province where concerns were expressed over the impact of the gold mining on the communities' way of life and the environment, caused the governmental sector, particularly the governor of Loei province, to emphasise on a strict and serious follow-up and assessment of the operation of this gold mine.

Participants were: WEN TF members from Centre for Human Rights and Development (CHRD), Mongolia; Solidaritas Perempuan, Indonesia; Innabuyog, the Philippines; and Banteay Srei, Cambodia. Three women from mining-affected communities in Mongolia, Indonesia and the Philippines joined the mission.

At the national level, these three organisations joined the mission: SDF, National Advisory Council, and Healthy Public Policy Foundation.

The mission was also attended by various groups working at local level: Loei Foundation for Conservation and Sustainable Development; Loei Rachapat University; Potash Mining Community; CIEE – Khon Kaen University; Loei Time newspaper as well as community members from Loei; the Northeastern Women's Network, and the NGO-COD from northeast Thailand.

Actions taken

- an ocular visit to the gold mining site (Nov. 20, 2006)
- a community dialogue with the women of the local community and the APWLD WEN TF members (Nov. 20, 2006)
- a one-day forum on mining with the local groups in Loei (Nov. 21, 2006)
- a printed report and photo documentation of the visit

A meeting with the Tungkam mining company

For the visit, the Tungkam mining company representatives had a presentation with the group for about three hours, which focused mainly on the technical aspects of the mining. There was a time for discussion with the visiting group. This discussion generated a lot of questions and concerns, which is outlined below.

After the presentation of the Tungkam mining company, the group was taken for a guided tour to only two sites – the tailings detoxification plant and the mine tailings dam. While these were important sites, the other very important site which we were not allowed to visit is the actual open-pit mine site. Even as some of the group members requested to visit this, it was not allowed.

Issues identified by the mission

Public disclosure of information – Even as they said that this operation was “no secret” at all, the fact that no information has been made public is an issue. Whether communities are interested or not, it is the responsibility of the company, and of the local government to provide the information. At the very least, the local government should be informed. However, based on conversations with some of the representatives of the local government, and based on the video of the Nov. 15 visit of the governor to the mining site, the local government seemed to be in the dark on even basic information on the mining operations.

Access to information – The Tungkam Co. representatives were saying that they had all the necessary documents to operate in Loei, and that these documents are just in their office and the local government. However, there seems to be difficulty in accessing whatever information is available. Availability is one thing, accessibility to these documents is another. The interested and concerned individuals from Loei expressed that they were not able to access information, which is technically public information, e.g., agreement entered into by the government and Tungkam Co; license or certificate issued by the government allowing Tungkam to operate which would indicate what type of activity has been allowed, within what scope of area and time frame. These are critical information that the public – media and civil society organisations – should be able to access.

Public consultation – Even as the Tungkam official kept repeating that there have been consultations, most of the people spoken to by the group, have never been invited to a consultation. While in the community visited by the mission team (Kob Ka Bot village), there was the leader of the community who said that he was “accidentally” invited to come to one meeting. He was in the premises of where a meeting on mining was ongoing, but for a different reason, and when they saw him, he was then invited. This kind of consultation, if at all any was actually held, is not consultative enough as it

seems like Tungkam handpicks those who should attend and be consulted. This defeats the very meaning of “public consultation” – public means that it is open to anyone and everyone who is interested, and consultation means that the opinion and sentiments of the people participating in the consultation would be asked, discussed and to be actually taken into consideration.

There should be proper documentation of when and where these consultations were held; who were the people who participated; and what were the discussions and results of these consultations. The documentation should be given to the government, to the organisations of the civil society, and be open to those who would like to access this, such as media.

These are critical issues, as these processes are the key for the local government and the communities which would enable them to engage the mining company on critical issues.

Active involvement of the local government – While the agreements and/or licenses are issued by the national government, it is imperative that the local government be informed and involved in the decision-making processes at every step of the way. To even have no information is not just unethical, but also very undemocratic.

On the other hand, it is the responsibility of the local government to be informed, to demand to have all the necessary information, and active part in the decision-making. Furthermore, it is the duty and responsibility of the local government to inform and involve its constituencies – the local communities, the media and the civil society organisations.

Independence of monitoring body – There was talk of the creation of monitoring units which would be composed of the local government, academia, and the members of civil society organisations. The integrity of such a monitoring body depends on its independence. One way to maintain its independence is to ensure that the funding and other resources should not come from the Tungkam mining company.

The creation of the condition of fear – Less than a week before the actual visit of the group, there was a message that reached the organising team that the group may not be allowed in the mining site, to talk to the community members, nor to have the mining forum. After some discussions and explanation of the objectives of the visit by the local partners, the group was informed that the visit may push through. The reasons for the ambivalence of the local government and/or the mining company to allow the visit of NGOs and community members from different countries were not very clear. This sent a signal that there were serious issues of openness and transparency. What was more worrying was the report received by the mission team that the women from one other community were not allowed to join the community visit. This is a bad sign for people or groups who should be encouraged to participate in the democratic processes at every level.

Fact-Finding Mission Reports

When people request for processes from the Tungkam Co. and the local government to be more participatory, consultative, transparent and democratic, there should also be an encouragement and empowerment of both women and men in the communities to avail of these processes. The right condition and atmosphere for such processes should be fostered – non-discriminatory, inclusive and safe. Such acts of intimidation and disempowerment from anyone should be discouraged and denounced.

Recommendations by the mission

1. Relevant information and documents should be made public and available:
 - Environmental Compliance Certificate (ECC)
 - EIA report
 - Land lease agreement
 - Documentation of the allegedly held public consultation – minutes or proceedings, photos
2. The independent monitoring body should have an independent source of funding and resources to protect its integrity.
3. The issues raised above should be discussed and be explored for correct answers.
4. The expansion plans of Tungkam should be properly monitored, and the local government should be involved in the decision-making process.
5. A series of public hearings should be organised by the local government and facilitated by the local government to provide the space for more information to be disclosed by the mining company, and for the community and civil society organisations to raise their concerns and issues.
6. There should be a clear understanding of relevant national laws among the concerned civil society organisations and activists including
 - land laws
 - mineral law
 - patrimony law
 - investment law
 - environmental laws
 - development project laws
 - delineation of responsibilities of national and local governments
 - public participation
 - Information Act
7. There should be a clear understanding of jurisdiction of the different levels of government, and different agencies of government.
8. More public forums on mining and its impacts on environment, communities and food security should be organised.

9. More forums and dialogues to inform the communities of their rights – to information, to participation, to protest.

10. Women's participation in these consultations and public hearing should be ensured. Document how many women and men were consulted or had attended the consultations.

IV. FINDINGS FROM THE FOLLOW-UP ACTIVITIES

Since Phuthapfa gold mine's operational test in 2004, the rice plants in the rice fields close to the mine died from unknown causes. The amount of rice yield has decreased from 70 tang⁴ per rai to half that amount. Trees, plants and vegetables died. It was suspected that these are due to the leak of cyanide and other chemical substances from inefficient treatment system into "sam pa bon" natural waterway of Huai stream which is the communities' natural water resource.

In 2007, after the Environmental Office Region 9 had inspected and found cyanide and metal in Huai stream in excessive amounts, the suspicion was confirmed. In addition, the Wangsaphung Hospital and the Khao Luang Sub-district Health Centre inspected and found cyanide in the blood of 54 out of 280 villagers sampled from 6 villages. Eventually, the Tungkam Company yielded and paid villagers compensation.

Due to the impact on agriculture from cyanide and other chemical substances from the gold mine that causes a decrease in rice yield, half of the population of Nanongbong village i.e. 20 families, both husbands and wives, have to travel to bigger cities such as Bangkok and Phuket to engage in temporary work such as selling lotteries to make up for the loss in their primary livelihood.

The dust from the gold mine has caused among villagers of Nanongbong itchininess and sharp pain in their eyes, dry skin and respiratory system problems similar to chronic cold. Five villagers had severe symptoms including allergies and rash and had to be continually treated for as long as three months.

Every family has to buy drinking water because the rainwater is found not safe enough to drink. This costs approximately 250-300 baht a month per family.

Due to non-stop rock-blasting, even during nighttime, villagers are not able to sleep. This has impacted on their health. They feel stress. Some villagers have to take sleeping pills and sedatives.

Despite all these negative impacts on the villagers, the company insists that the production technology that is being used by Phuthapfa gold mine, particularly the cyanide substance and metal treatment system, meets environmental standards and follows the law.

⁴ 1 tang equals to 20 litres.

V. COMUNITY RESPONSE

Villagers

There is a conflict of ideas among the six villages affected by the mining. A number of people see some benefits specifically with employment opportunities. Leaders receive benefits offered by the mine in the form of monthly remuneration and royalty that is paid by the mine to the SAO.

But for villagers of Nanongbong which is the most affected community, they are most harmonious and strongest in the movement. Even those who receive benefits from the gold mine i.e. approximately ten men who are mine workers and five to six women who are hired to prepare food for mine workers said they would be happy if the company could stop mining because the benefit that they got could not be compared with the damages done to the community's environment and agricultural plots.

Presently, the villagers of Nanongbong have already established a “khon rak ban koed” (people who conserve mother land) group to monitor, inspect and watch over the impacts of gold mining. All villagers are members of this group. The group has 20 committee members out of whom five are women. Even though the number of women in the committee is not as many as that of men, it is still regarded as a very significant step. This is because women, as both committee members and non-committee members, have actively participated in the meetings to decide and take part in community activities. They have developed their potentials in expressing their ideas and in analysing even though, as they themselves said, they are uneducated and are not able to even write or sign their names because in the past when they were children, the village was at the middle of the forest; therefore, it was not convenient for them to travel to school.

The committee of the group and the community members still continually engage in the movement throughout 2008. For example, on 2nd June 2008, approximately 80 of them visited the provincial governor to submit their petition on five points. Among the calls are: for Phuthapfa gold mine to improve the pond that collected the slag and waste water derived from mineral processing, to solve the problem of dust, and to solve the problem of vibration and loud noise caused by rock-blasting; for the Environment Office Region 9 to inspect the amount of cyanide in the Huai stream; for the Loei Hospital and the Khao Luang Sub-district Health Centre to inspect people's blood for cyanide. In August 2008, they submitted their petition letter to the National Human Rights Commission. This letter specified that the Tongkah Company had violated the rights of the community and caused damages to agricultural plots and negative impact on the environment. At the beginning of November 2008, they collected the names of approximately 800 villagers, out of the total number of 3,000, of the six villages. They submitted the names to the president of the Khao Luang SAO to oppose a granting of concession for additional survey on gold mineral sites, as per Tongkah Company's earlier request for additional survey of another 4 plots in Phu Lek forest, making their area a total of 1,200 rai.

Monitoring the mine by civil society

With regard to Phuthapfa gold mine, the network of people's sector organisations that consists of the Loei Foundation for Conservation and Sustainable Development,

the Foundation for Loei Province Development, the Community Radio Network and local newspapers have started to monitor its operation. The network provides information to the communities that are located in the mine's operational area. Apart from that, the network watches over the impacts of this gold mine company since 2004 when it started its pilot operation and had impacts on communities' environment.

The objectives of collaboration of these people's organisations and network and civil society are: (i) to enable communities to analyse the impacts on their environment and way of life and to be aware and strong in order to protect their rights; (ii) for people in Loei in general to understand, be aware, and support the communities' resistance; and (iii) to be part of the review of Thailand's mining policy and law.

Operational strategies are as follows:

Strengthening of communities by providing them with adequate information on environment, law and their rights. As well, there are sharing and learning processes with fellow villager groups in Loei province such as those who oppose rock-mining factories in Erawan district. Sharing and learning processes are also organised with those who reside in different areas but share the same issues such as those in Udonthani province who oppose potash mining. In addition, based on environmental conservation concept, support is given to build up development alternatives such as non-chemical organic agriculture and cotton growing.

Building up of cooperation and use of media for communication and dissemination of information on the problem and campaign for society's understanding and awareness. This is realised with the use of community radio stations, local newspapers and a mainstream media i.e. Thai Public Broadcasting Service (Thai PBS) television station with which programmes are organised.

Building up of cooperation with academicians and use of new technical procedures. This includes cooperation with the National Health Commission Office and the Research and Development Institute, Khon Kaen University, in the use of Health Impact Assessment (HIA) and Health Public Policy Development tools for operational process.

Concept of sustainable development of economic system that relies on exhaustible resources

Dr. Decharat Sukkamnoed

As basic principle, concerning sustainable development of economic system that relies on exhaustible resources, John M. Hartwick, an English economist, presented that it will be sustainable only when the value of the decreased resource is compensated by investment on other assets that have productive value.

Later on, in 1999, the World Bank developed this principle into a development indicator called, “Genuine Saving” that would be used to measure the augmentation of the resources in the economic system in terms of natural and human resources and produced capital goods that are important to economic system.

Calculation for Genuine Saving Rate (GSR) can be done by: Country’s total saving (or Gross National Product minus consumption) + (plus) educational expenses (which means augmented human resources) – (minus) depreciation cost of capital goods – (minus) exhaustible resource (consisting of value of exhausted mineral, value of exhausted energy, value of exhausted forest resource, and damage caused by release of greenhouse effect).

Concerning measurement of sustainability of development, it seems that, compared with measurement with economic growth rate only, measurement with this GSR tool is closer to reality. Nonetheless, we all know well that there are still many other social capitals that cannot be calculated into figures e.g., community’s way of life and culture which form important capitals for large development projects as well as mining industries.

The opposition by villagers of Nanongbong, under the name of “Khon Rak Ban Koed Group”, for inspection of the impacts of Phuthapfa gold mine on the community’s environment, the efforts to oppose expansion of the mine’s operational area, the protection of natural resources and environment, and the protection of community’s way of agriculture, along with the Loei people’s and civil society’s building up of development alternatives, with the supports of NGOs and academicians who aspire to justice, are continuing. It is part of the effort for “sustainable development” where people take part in determining development direction.

Report of APWLD Fact-Finding Mission in Mongolia August 15-20, 2007, Ulaanbaatar, Mongolia

Centre for Human Rights and Development (CHRD)

Asia Pacific Forum on Women Law and Development (APWLD) conducted a fact-finding mission (FFM) through its Women and Environment Task Force (WEN TF) from August 15-20, 2007 in Mongolia on the issues of mining and environment. The mission was organised under the WEN TF's 'Food Over Gold' Campaign. The Food Over Gold Campaign was designed by the WEN TF to address mining as a major concern for rural women in the Asia-Pacific region due to the threat mining poses to food sovereignty. In the experience of most global communities, large-scale and corporate mining have caused the destruction of people's land and natural resources and have caused a great deal of dislocation and human rights violations. In the Asia-Pacific, women suffer the most as they are largely responsible for attending to activities related to traditional livelihoods like agriculture, herding, gathering and fishing. The destruction of the land, natural and food resources deepens poverty and makes women and children vulnerable to various forms of violence.

The FFM team consisted of representatives from member organisations of WEN TF, including Innabuyog-Gabriela of the Philippines, Solidaritas Perempuan of Indonesia, the Centre for Human Rights and Development of Mongolia and Samata of India. The team also included media personnel to document the mission.

The FFM team visited five mining-intensive areas in the provinces of Darkhan-Uul, Arkhangai and Uvurkhangai, namely: Uyanga, Bat-Ulzii, Nariin Hamar, Zaamar and Khongor.

The FFM carried out a series of activities, including conducting field studies in the above mentioned mining affected areas, organising a public forum, conducting a live TV programme and press conference and producing a video using documentation made during the field visits.

I. BACKGROUND OF MONGOLIA

Geography and climate

Mongolia is the world's largest landlocked country located in Northern Asia, between China and Russia. With 2.6 million people spread out across 1.5 million square kilometres of steppes, deserts and mountains, Mongolia is the most sparsely populated country in the world. It has an extreme continental climate with long, cold winters, with January averages dropping as low as -30°C (-22°F) and short summers. The country is also subject to occasional harsh winter climatic conditions known as *zud*.

Mongolian economy

Mongolia is a parliamentary republic. A new constitution was introduced in 1992. Mongolia started the transition to a market economy in the early 1990's and since then has implemented a substantive amount of reforms to boost its economic performance. As land reforms allow for private land ownership, more than 80 percent of the economy is now in private hands.¹

Mongolia's economy is centered on agriculture and mining. Mongolia has rich mineral resources, and copper, coal, molybdenum, tin, tungsten, and gold account for a large part of industrial production.



In 1997 Mongolia became a member of the World Trade Organisation (WTO) and had rapidly opened up its economy to the rest of the world. Mongolia trades with nearly 100 countries (a vast increase in the last 15 years due in part to economic liberalisation), with its major partners being China, Russia, the United States, the EU, South Korea, and Japan. Since 1990, Mongolia has forged over 30 bilateral trade agreements, and has revised customs laws and lowered tariffs to comply with the WTO Technical Barriers to Trade (TBT). Mongolia holds that trade liberalisation will help the status of its human development.² Gross domestic product (GDP) grew by 6.2 percent in 2005, largely due to mining activities. Per capita income, which was \$384 in 1999, almost doubled to \$605 in 2004.³

Despite this growth, a full 36% of the total population – some 900,000 people – live below the poverty line.⁴

In 2002, about 30 percent of all households in Mongolia participate in subsistence herding.⁵ Most herders in Mongolia follow a pattern of nomadic or semi-nomadic pastoralism. Agricultural crops include wheat, barley, potato, vegetables, tomato, watermelon, sea-buckthorn and fodder crops.

¹ Country programme document for Mongolia (2007-2011) <http://www.undp.mn/hdpr.html>

² Project document: Trade and Human Development January 2006 - December 2008. <http://www.undp.mn/hdpr.html>

³ Country programme document for Mongolia (2007-2011), <http://www.undp.mn/hdpr.html>

⁴ United Nations Population Fund in Mongolia: Helping Build a Better Future.

⁵ National Statistical Office: Statistical Yearbook 2002.

Growing desertification, depletion of forests, soil and biodiversity and high dependence on mining and livestock are aggravating ecological vulnerabilities.

Mongolia is party to international environmental treaties such as the Convention on Climate Change, Kyoto Protocol, Convention on Biodiversity, Convention to Combat Desertification, Environmental Modification Convention, Basel Convention on Hazardous Wastes, Vienna Convention for the Protection of the Ozone Layer, the Ramsar Convention on Wetlands as well as major human rights conventions such as International Covenant on Civil and Political Rights (ICCPR), International Covenant on Social, Economic and Cultural Rights (ICSECR), Committee on the Elimination of Discrimination against Women (CEDAW). Mongolia has also endorsed agreements at major international conferences – in particular the International Conference on Population and Development in Cairo in 1994, the Fourth World Conference on Women in Beijing in 1995 and the World Summit for Social Development in Copenhagen in 1995.

Mining sector growth

Mining sector is rapidly growing since 1990s and the economy is much dependent on this sector. Since adoption of 1997 Minerals Law, there has been a five-fold increase in both the number of exploration licences and the area under exploration. The government has issued nearly 2,600 exploration licences covering a total of 40 million hectares – or 26 percent of Mongolia's land area. As a consequence, the mining sector has expanded rapidly and is now Mongolia's largest industrial sector. By 2005 the mining sector was directly contributing some 18 percent of Mongolian gross domestic product, 66 percent of its industrial output, almost 76 percent of its export earnings, and 20 percent of its public revenue. By 2007 the mining sector was generating nearly half of all revenue collected by the Mongolian government. Mongolia has world class mineral deposits that are ripe for development: Ivanhoe Mines Ltd. of Canada and Rio Tinto plc. of the United Kingdom reached an agreement to form a strategic partnership to develop the Oyu Tolgoi copper-gold project; and such companies as Bazovy Element and Severstal Group of Russia, Itochu Corp. and Mitsubishi Corp. of Japan, Peabody Energy Corp. of the United States, and Shenhua Corp. of China were interested in developing the Taven Tolgoi coal deposit (Energoresource of Mongolia held the exploration license)⁶, even though they are often located in remote and commercially challenging areas.

Despite the growing economic share of the mining sector in Mongolia, there is an increasing awareness among civil society and NGOs of the negative impacts of mining on nomadic herders and the environment. The use of outdated and highly polluting technology, lack of adequate environmental impact assessment, the failure of mining companies to rehabilitate mine sites, amongst other things, has led to acute environmental degradation affecting the water sources and pasturelands of herders.

⁶ USGS 2006 Minerals Yearbook, Mongolia. minerals.usgs.gov/minerals/pubs/country/2006/myb3-2006-mg.pdf

The current mineral law was adopted in 1997 and amended in 2001 and 2006. The 2006 amended mineral law makes changes to the minerals royalty, license fees, license terms, and tax incentives for mining, which attempts to attract both domestic and foreign investors.

The Environmental Protection Law of Mongolia was amended to incorporate community empowerment and its enhanced role in natural resource management. This amendment has created a legal environment for the herding rural communities to start community-based management of natural resources (forest, wildlife, pasture, etc.). The Environment, Geology and Mining Inspection Service of the State Specialised Inspection Agency (SSIA) is the main body within the SSIA responsible for monitoring the nationwide implementation of laws, by-laws, directives and standards in the areas of environment, geology and mining to ensure safe living environment for people.⁷

However, there is widespread failure to implement and enforce environmental laws, and a lack of public participation in environmental decision-making. As a result, civil society organisations are concerned that there is much to be done to protect the rights of Mongolia's herders from the negative impacts of the mining industry, and to enhance transparency and government accountability in this industry.

II. FIELD STUDY FINDINGS

The site reports

• Ulziit Teel, Archuluut and Shiirt River basin

Five mining companies had at least operated in the area, which include Altai Gold (owned and controlled by the state of Russia), Mongol Gazar (private Mongolian company), Altan Dornod Mongol (private Russian company), Six Zug (small-scale Mongolian private mining company).

Four mining companies had been operating in the area since 1999. The biggest of which is Altan Dornod which covers 176 hectares. In 2006, instead of rehabilitating the area, Altan Dornod continued mining gold. Not only had Altan Dornod violated the environmental law in not rehabilitating the area but it had also violated the national labour law which says that foreign workers should not exceed 10% of the labour force. 90% of Altan Dornod's workers were Russian.

Altai Gold, operating in Archuluut river basin, obtained an exploration license under the Mineral law of Mongolia. This license was renewed in 2006. The company violated the law by getting the license without completing a detailed environmental impact assessment (EIA). Local people were not informed that the mining company had been granted a license. It was only when the mining company started felling trees that the people learned that the company had permission to mine in their area. The local people protested against the company's illegal operation. They mobilised to lobby high-level government officials to conduct investigation on the site. Finally the license was cancelled and the land given back to the local people who had lived there for decades breeding livestock.

⁷ Project document: Strengthening Environmental Governance in Mongolia 2007-2010.

• **Uyanga *soum* (district)**

There are 11 mining licenses in the area, three for mining companies with active operations and eight for mining companies for exploration. The three mining companies in active operations cover 1,024 hectares while those doing exploration cover 222 hectares. All of that land used to be pasture lands. The exploration began in 1988 and operations started in 1993.

Erel company (Mongolian) had operated in Ult River basin since 1993. The company left 200 hectares of land without rehabilitation and now over thirty small mining companies and over twenty thousand artisanal independent miners (*ninjas*) are mining gold there. The law allows the mining companies unlimited water use. The Ult River has completely disappeared due to mining operations. In this situation, the environmental inspector of the site has said that the Ult River is only a very small river. Moreover, according to the inspector's interview, his mandate to access water testing results done by the upper level water monitoring agency is not clear. Therefore, the inspector does not have any proper documentation and reports to show who is interested in the issue of water and mining in his assigned area.

• **Nariin Hamar valley**

Nariin Hamar is a mining-prohibited area due to the presence of endangered species. However, the EIA of the mining company Mongol Gazar was illegally approved by the Ministry of Nature and Environment as it did not include comments from local people nor did it consider nine species of endangered animals and 13 species of endangered plants.

Although the local people protested against the mining, the company conducted mining operations on the site in 2006. During the rehabilitation of the site, the company released polluted water into the river. In that time, some animals of herders in that area died with symptoms including swollen stomachs. Some herders also complained of stomach pains and liver problems. Despite the company employing some local people during the rehabilitation process, and some families selling collected nuts and fruits to the company workers, there was no benefit to local people's livelihood from the mining company's presence.

• **Zaamar *soum***

Zaamar *soum* of Tuv *aimag* (province) is a mining-intensive area. 60-70 percent of the territory of Zaamar is covered by mining licenses. As a result, water resources and pastureland used by herders has greatly deteriorated. About 20 rivers have dried up and the last stream area was occupied by three gold mining companies. Therefore, herders have no other option but to use the polluted water from River Tuul where about 20 mining companies operate. When the FFM was conducted, there were only 69 herder families left, with other families turning to artisanal mining (*ninjas*) or internally migrating to other areas in Mongolia. Herders avoid taking their livestock to the pasturelands near the mining company areas as they might be chased away by mining company security guards. Local people have not benefited from the mining activities and unemployment is very high in this *soum*.

• **Khongor soum**

The most serious damage to the environment and local people occurred in Khongor soum in Darkhan Uul province. The company Mich has polluted the land and air with mercury, poisoning residents and livestock. Residents have observed frequent skin rashes, headaches, stomach problems, high blood pressure, blurred vision etc. Therefore, residents have been sending their children to live with relatives in other places. Due to repeated illnesses, the medical expenses of residents have increased and some are already in debt due to this increase. Some animals are delivering stillborns prematurely. Because of the spread of mercury in the air and land, vegetables grown in this area are no longer being sold. Ninety-two wells have been poisoned and water distribution is not enough to meet the daily water consumption of the residents. Mercury percentage in the air is ten times higher than the normal rate. Residents have protested and issued a case against the mining company. However, after a year-long court process, the case against the company was dismissed.

The site visit major findings

Mining sites are usually located in remote rural areas and lack basic public-service provisions, including water, sanitation, housing, and infrastructure, which have placed enormous burdens on poor rural households. Under such living conditions, people living close to mining sites have been deprived of their fundamental freedom and human rights such as the right to self-determination and sovereignty over national resources, the right to life, the right to health, the right to food and water, the right to information and participation, the right to a remedy in case of violations and other human rights enshrined in the Universal Declaration of Human Rights and other international instruments.

• **Insufficient regulation by law and lack of implementation of the law**

Mineral law regulates mining operations. However, the provisions of the law are insufficient and contradict human rights. It does not include the limitation of water that mining companies are allowed to use for their mining operations. The local government agencies often fail to monitor the implementation of the laws and regulations and issue mining licenses without obtaining full results of the EIA as regulated by law. Most of the mining activity in Mongolia is of open pit type, and according to the law, all open pits must be reclaimed but that is not enforced.⁸ In Uyanga province, the Erel company obtained three utilisation licenses for 1,224 hectares of land, and leases its licenses to 30 small companies which makes monitoring the observation of the laws more difficult.

• **Mining companies' failure in completing EIA, lack of accountability, lack of consultation with the local people**

Since 1995, those applying for exploration and mining permits are required to get an EIA done. From January 1998, a resolution was passed mandating that all existing enterprises (including mines) must have an EIA prepared before the end of the year 2001. Operators of mining and exploration ventures are also required by law to submit an environmental management plan to the aimag or soum governor. In order to cover

⁸ Mongolia: State of the Environment 2002, UNEP. http://www.rrcap.unep.org/reports/soe/mongolia_part2.pdf

environmental liabilities, mine operators are required by the Minerals Law of Mongolia to place 50% of their environmental protection budget for the exploration in a special account with the *soum* governor and 50% of the environmental protection plan for utilisation in special account of the Ministry of Nature and Environment. This would cover damages done to the environment that are not appropriately dealt by the mining operators. However, none of these laws are enforced.⁹

It was also observed that little or no consultation prior to commencement of mining operations was held with the local people. Relevant information to the local people such as possible negative impacts of the mining operation on natural environment and the local people, or compensation scheme by the company in case of human rights violations, are often not provided to the people. Local people are often not fully aware of their right to information and taking actions against the company and/or the local government. They only realise it when they see negative changes occurring to their health or their livestock.

• Pollution and destruction of land and water

Inappropriate mining operations have been disastrous for Mongolia's untouched natural environment. Low standards of technology and equipment as well as companies' negligence are resulting in irreversible damage to the natural environment. Cyanide and mercury, which are highly toxic to the environment, people and animals, are commonly used by mining companies and informal miners or 'ninja' miners. Mining companies often fail to rehabilitate the environment. Poor management of toxic waste water disposal has caused much higher level of toxicity than regulated level found in rivers, lakes, and springs. Waterways have been redirected and diminished resulting in shortage of drinking water. Mining is worsening the situation of already scarce water sources in Mongolia, both in quantity and quality. Due to the contamination by mining many people have been deprived of their pasture land, agricultural land, water and livestock, which are their major livelihood. Without prevention and protection measures which must be taken by the government and the company, people's rights such as right to life, right to adequate living condition, right to health, right to food and water, etc., are violated. As a consequence, the people are left with no choice but to leave their land, without compensation or new opportunities to generate income provided by the mining companies.

• Impact on health

In Khongor, both humans and animals, including livestock, suffer from severe health problems. Since mining operations have started people at all the mine sites stated that they have experienced migraine headaches, bumps, rashes and dizziness. Moreover, women at the mine sites experience reproductive problems. People in mine sites observe that many livestock are born with deformities. Some livestock have become blind, and many suffer from eye infections and eventually become blind.

⁹ Mongolia: State of the Environment 2002, UNEP, http://www.rrcap.unep.org/reports/soe/mongolia_part2.pdf

• **Small-scale miners (ninjas)**

Small-scale artisanal mining activity is neither formally organised nor authorised, but is highly labour intensive, technologically simple, and low cost. The artisanal miners called ninja miners are both men and women including children. Children drop out of school and follow their parents into mining activities. Some of them are local people but most of them have internally migrated from other parts of Mongolia, driven by deteriorating economic circumstances and a lack of viable alternatives in their home areas. Ninja miners are completely left outside of any formal regulations and are considered to be criminals by the local people, the police and company guards, and so, their rights are severely violated. Ninjas use cyanide and mercury without any protection and equipment to prevent contamination of surrounding environment, resulting in serious health problems to themselves as well as polluting the environment. Recently, after the visit by the FFM, the parliament of Mongolia has established a special regulatory act on ninja mining activities. However, any actual improvement has yet to be observed.

III. PUBLIC AWARENESS RAISING EVENTS DURING THE FACT-FINDING MISSION

Discussion on a live TV programme

The FFM team was invited to participate in the “Policy” weekly live programme on the TV 5 station which broadcasts throughout Mongolia. The team presented their findings from the field trips and answered questions communicated directly to the programme by viewers. Viewers stressed their concerns over failures to rehabilitate the environment, and the effects of this on both humans and animals. This live TV programme was successful in terms of getting attention from the public because it was organised right after the FFM and the information provided by the FFM team was fresh. The TV programme has contributed to keeping alive the issue of environmental destruction and violation of rights of herders by the mining activities. This was done by showing timely information and footages with local people’s voices through the video documentation shot by TV 5 during the FFM.

Public forum

The Public Forum was held on 20 August, 2007 which was open to all civil movements, NGOs and government officials. Around 40 participants from 20 government and non-government organisations gathered at the Forum. Participants were from local river movements, the water sanitation and supply authority, the National Human Rights Commission, the natural resource and rehabilitation authority and the local media. At the Forum, CHRD and international experts presented the FFM findings and the ongoing peoples’ struggle against destructive mining practices in some countries in the region. The participants raised their concern on the issue of danger to the environment and nomadic herders’ livelihood. They shared their views on how civil society’s collective effort can address these issues especially in creating a legal environment that protects local herders and their inherent nomadic way of life and environment. The participants expressed that they supported the FFM recommendations to the government of Mongolia, calling upon them to take urgent action to protect the environment, the local people’s rights and prevent possible

serious danger due to mining activities at the FFM sites. CHRD prepared a press release and distributed it to media organisations.



Documentation of the fact-finding mission

Using the documentation done by TV 5 staff during the field study, CHRD produced a video about environmental degradation and negative effects from mining company activities at the field study sites. Copies of this video have been distributed in local communities and to the media. The video is being used in CHRD's advocacy and education projects on environmental protection and promotion of the rights of herders.

IV. RECOMMENDATIONS BY THE MISSION

The FFM team recognises that the role of the state is most important to terminate all these human rights violations.

The participants urge National Emergency Management Agency, Ministry of Environment, Ministry of Health and State Professional Inspection Agency, Mineral and Oil Authority to:

- Investigate again the pollution caused by chemical hazards, neutralise it in
- Khongor village, moving the local citizens to a clean, safe place to recover their health;
- Pay compensation to the local people and farmers whose health, livelihood and
- economic situation have been damaged by the guilty parties;
- Buy products of the areas affected by mining in order to support local economic
- system;
- Stop giving mining licenses unlawfully, especially in places of water resources, and
- punish the guilty officials;
- Develop the rule for accountability on environmental damage as soon as possible
- and pay compensation to the local communities;
- Stop the activities of the mining companies that have not bettered the
- environment and push them to do so;
- Enhance the transparency of the financial support to the local administration
- offices from the mining companies and its consumption and spend the tax income from the mining sector to build the work places and livelihood for the local people;

- Investigate and watch how the labour law is being implemented in foreign-invested mining companies; and
- Adopt the law on small-scale mining.

CHRD brought these recommendations to the related government organisations and officials and continues to advocate for better protection of herder's rights and environment in the mining industry.

V. CHRD'S FOLLOW-UP ACTIVITIES AFTER THE FACT-FINDING MISSION

World Water Day – Awareness-raising project on water and mining issues

During the FFM's field trip to Arkhangai province, the issue of river water pollution and river drought due to illegal mining operations were identified as the most pressing issues by the mission team. Therefore, the mission team recommended to the Ministry of Environment to improve its regulation of river water used by mining companies and to provide permission to use only a certain amount of river water under the conditions that no pollution of the rivers occur, no change in the river basin and that the current practice of using limitless amounts of river water in mining operations be changed.

As a follow up on the issue, CHRD implemented a media project to raise awareness on the negative effects of mining on river water to coincide with World Water Day on March 22, 2008. As part of the project, CHRD conducted a baseline study on water and mining issues based on available data. The study explored the legal regulation of water used in mining activities and its practical implication, including how laws and regulations on water have been breached by mining companies. The study also focused on the availability of consistent and reliable data on water use produced by mining companies.

Using the baseline study findings, CHRD organised a press conference on the issues of mining and river water on World Water Day. In the press conference, CHRD demanded the Government of Mongolia to: implement laws and regulations regarding the use of river water in mining operations, stop water law violations by the mining sector and cancel all mining licenses granted in areas near river basins in Mongolia. However, there is still no effective measure on this issue by the Government of Mongolia.

CHRD continues to advocate for better water management in the mining sector. CHRD's demands on this issue are in line with other civil society groups concerned with mining issues and some members of the parliament in Mongolia.

Advocacy for Khongor case

One of the issues that were highlighted during the FFM was the issue of Khongor *soum*, one of the areas where FFM conducted a field trip. Khongor *soum* residents had serious health problems, allegedly because of mercury used by a gold mining company located at the *soum* centre. The issue of mercury poisoning of the residents had already been revealed when the field visit was conducted. However, until that time the government had paid little attention to the issue, despite the continued demands

from the residents that the government act effectively and address their health issues. During the FFM, the mission team met with Khongor *soum* residents and discussed the health and livelihood problems caused by mercury poisoning. After a field visit to the mining site, the mission team conducted media programmes to inform the public of their findings.

After the FFM, in August 2007 CHRDR issued an open letter on the Khongor issue and demanded the government to immediately act to effectively address the health and livelihood issues of Khongor *soum* residents. As the seriousness of health problems increased, in September 2007 CHRDR conducted a sample survey to explore these health problems. CHRDR contributed to publicising the issue to a broader audience as well as at the government level through a series of advocacy activities on the Khongor case following the completion of the FFM in August 2007. CHRDR's activities, including human rights awareness raising meetings, legal counselling and regular contact with the leaders of communities have given Khongor *soum* residents added strength in their struggle to demand and ensure that their rights and livelihoods are protected.

Court cases

Case 1: Dornod *aimag* (Eastern Mongolia) – Failure to rehabilitate land after gold mining

- In 2006, CHRDR commenced a case relating to over 600 hectares of land in Dornod *aimag* that had been abandoned without rehabilitation after gold mining activities. CHRDR worked with local communities who complained against the Mongolian gold mining company Mongol Gazar who had failed to rehabilitate the land.

- The case has been submitted to the State Investigation Police and State Prosecutor's Office, and the company is facing criminal charges.

- State Inspector agency's experts have calculated the environmental damage at 157,000,000 Tugrug (approximately USD 103,000). However, the methodology for calculating this damage was poor (only rehabilitation cost). Mongolia has no legislation to prescribe how to calculate environmental damage. The Minister of Environment is currently drafting legislation regarding calculation of environmental damage.

- The criminal court dismissed the case for failing to present sufficient evidence of damages. After that negotiations were carried out between CHRDR and Mongol Gazar, in relation to rehabilitation of the site. However, the company's proposed rehabilitation plan is inadequate, and so CHRDR commenced a fresh case on June 11, 2008, a civil case claiming only rehabilitation costs (rather than a criminal case seeking compensation for full environmental damage). Finally, CHRDR won the case at the civil court in October 2008 and the Mongol Gazar company was charged to rehabilitate the land. The appeal case also decided in favor of CHRDR claimant. This was the first ever civil case that was decided by the court on environmental rehabilitation issue in Mongolia.

Case 2: EIA case in Tsenkher *soum*, Arkhangai *aimag*

In May 2007, CHRDR submitted a claim for ‘administrative review’ to the Department of Environment and Natural Resources. The claim disputed the decision by the Deputy Minister of Environment to accept an EIA, prepared by a private company purportedly in accordance with the EIA law. The EIA is for a mine in Tsenkher *soum*, Arkhangai *aimag*, the location of a long-running dispute between the local community and mining in the area.

The EIA report failed to include the opinions of citizens, which were required to be included and then considered by the minister (in accordance with articles 5 and 7 of the Law on EIA). Further, the claim was that the relevant department of the Ministry of Environment did not consider impact on the number of endangered species in the area.

CHRDR then commenced a case in the administrative court of Ulaanbaatar against the decision of the Ministry of Environment. In response, the Ministry suggested that the parties negotiate in relation to the case. The Ministry indicated it would be willing to appoint a Working Group to reconsider the EIA, and an agreement between CHRDR and the Ministry was signed in this regard.

According to the agreement, if the Ministry failed to implement its obligations under the agreement, the EIA would be automatically nullified. The Ministry did not implement its obligations before the deadline in the agreement. CHRDR has applied to the Office for Implementation of Court Decisions. The case is under review.

Gender and Mining: An Assessment of the Impact of Gold Mining on Women in Mongolia

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June-August 2006)

Report Summaries

This report (“Gender and Mining”) assesses how Mongolia’s rapidly expanding gold mining industry affects women. Over the past few years, there has been a growing awareness in Mongolia of the negative effects of mining if it is allowed to continue to develop unchecked, without policies or legislation in place to protect human rights and promote sustainable development. Although various organisations have done initial reports regarding issues such as occupational safety and health in the Mongolian mining industry, this is the first report to focus specifically on the impact of mining on women and women’s rights in Mongolia.

The report identifies five different groups of women affected by mining: the so-called ‘ninja’ miners, women working in the service sector at ‘ninja’ mining camps, commercial sex workers, women herders, and women employed in the formal mining sector. Based upon personal interviews conducted in Dornod, Omnogov and Ovorkhangai *aimags* (provinces), Gender and Mining provides an overview of the varied challenges women affected by gold mining in Mongolia face, as articulated by the women themselves. The report also draws on data from the United Nations (UN), NGO and government publications. Based on information obtained from the interviews, the report explores difficulties, such as health problems and personal security concerns, that women affected by gold mining face. The report concludes by offering policy, legislative and advocacy responses to these issues.

Gender and Mining: An Assessment of the Impact of Gold Mining on Women in Mongolia

“[W]e state that mining has serious negative impacts on women’s lives, livelihoods, social and cultural status, physical and sexual rights, ecological spaces, access to and control over natural resources, legal and customary rights and traditional knowledge systems.” – Statement of the International Women and Mining Network¹

I. INTRODUCTION

The mining industry in Mongolia has grown at exponential rates over the past decade. From the early 1990s to date, the Mongolian government has issued 6,171 mining exploration and exploitation licenses covering over 45%, or 71,107, 888 hectares, of

¹ Statement of the International Women and Mining Network, Third International Women and Mining Conference, India (October 2004), available at <http://www.mmpindia.org/womenminingstatement.html>

Mongolia's territory.² Although Mongolia is rich in many natural resources, it is gold mining in particular that has fueled these developments. Experts predict that this formal mining upsurge, and the informal mining sector growth that has accompanied it, will only continue to increase in the medium-term.³ Both formal and informal gold mining have contributed to economic growth and provided much-needed employment opportunities; however, recent events demonstrate that mineral development in Mongolia may be happening too fast, without adequate safeguards to address critical environmental and human rights concerns.

Over the past few years in Mongolia, there has been increasing recognition, among all segments of society, of the need to ensure accountability and assert regulatory control over domestic mining activities. Grassroots initiatives demanding environmental justice, such as River Movements, have sprung up in opposition to mining company practices. Groundbreaking litigation aimed at holding mining companies responsible for their environmental impacts has been making its way through the courts. Mass protests against transnational mining companies such as Canadian-owned Ivanhoe have been organised throughout the country. The media have begun serious coverage of the ever-growing population of “ninja” miners, with near daily television news reports sparking national dialogue and concern over the chaotic and lawless conditions in which these communities exist. Fierce debate has ensued in Parliament over the passage of a new set of Mineral Laws for Mongolia.

All these developments demonstrate a growing awareness of the negative effects of mining if it is allowed to continue to develop unchecked, without policies or legislation in place to ensure the protection of human rights and the promotion of sustainable development. In response, many government organisations, United Nations agencies and non-governmental organisations have begun devoting resources to assessing some of the human rights implications of mining activities in Mongolia. In 2006, the United Nations Human Rights Theme Group initiated a national dialogue to discuss the key human rights issues at stake and solicit proposals for how to address the problems raised.⁴

Although various organisations have done initial assessments regarding occupational safety and health, child labour, ninja mining, water safety and reproductive health around mining sites, this is the first gender impact assessment that has been conducted that looks specifically at the impact of mining on women and women's rights in Mongolia.

The Need for a Gendered Approach

A gender-based perspective is imperative to fully understand, and devise appropriate strategies to address, the impact of the mining industry on society. Often, for example, “[m]ining operations are ... perceived as widening gender disparities within communities.

² Centre for Human Rights and Development, Discussion Paper for National Dialogue on Mining and Human Rights in Mongolia (2006) 2.

³ Mongolian Business Development Agency (MBDA), *Ninja Gold Miners of Mongolia: Assistance to Policy Formulation for the Informal Gold Mining Sub-sector in Mongolia* (2003) 18-19. See also Peter W. Uitterdijk Appel, *Small-Scale Mining in Mongolia – A Survey Carried Out in 2004* (2004) 6, available at http://www.geus.dk/program-areas/common/geus_rep_2005-4.pdf.

⁴ See CHRDP Publication: Discussion Paper for National Dialogue on Mining and Human Rights in Mongolia (2006).

Women tend to bear a disproportionate share of the social costs and receive an inadequate share of the benefits.”⁵

Men and women are not only affected differently by the mining industry, they often have different needs or concerns in response to a given situation. This is highlighted by the results of a Participatory Living Standards Assessment (PLSA) study in Mongolia, which found that “in their perceptions of well being, women tended to emphasise the ability to bring up children well, good health, having responsible husbands, and social standing or respect. Men, on the other hand, placed more importance on material well being demonstrated by owning vehicles, by herd size, and by having a good job.”⁶ These disparate priorities may have further implications for children and families. For example, it would seem that where Mongolian women are adversely affected, the health and well-being of their children and families often suffers as well.⁷

Therefore, it is vital, when formulating policy approaches to address the human rights implications of mining, to comprehend the gender interests involved and to devise a gender-sensitive strategy that will be sure to take into account women’s voices and women’s rights. This is particularly important in a country such as Mongolia, where female representation in higher levels of government charged with such policy and decision-making is quite low and has in fact declined significantly since the end of the socialist era.⁸ With the need for this understanding in mind, this report attempts to provide an initial overview of the challenges women face, as articulated by the women themselves, in relation to Mongolia’s gold mining boom.

Methodology and Structure

The report is based on data culled from a variety of UN, NGO and governmental publications as well as personal interviews conducted during the summer of 2006 with women living in or around mining sites in three distinct regions of Mongolia. Field visits were conducted in Dornod, Omnogov and Ovorkhangai Provinces. Four major groups of affected women were interviewed: female ninja miners, “service ninjas” or women running small businesses at ninja mining sites, herder women and female employees in the formal mining sector. A fifth group, commercial sex workers, will also be discussed, although personal interviews proved too difficult to obtain.

After a brief introduction to the mining situation in Mongolia, the report is divided into five sections, corresponding to the five categories of affected women mentioned above. An overview of the challenges faced by women in each group is then provided. These categories are admittedly porous: women may belong to more than one group or may move back and forth between different group memberships; issues discussed may transcend these categories. However, this approach seemed most helpful in providing a constructive framework in which to devise appropriate policy, legislative and advocacy

⁵ International Institute for Environment and Development, *The Report of the MMSD Project, Breaking New Ground: Mining, Minerals and Sustainable Development* (2002) 205 available at <http://www.iied.org/mmsd/finalreport/index.html>.

⁶ Asian Development Bank and World Bank, *Country Gender Assessment: Mongolia* (2005) 11.

⁷ *Id.*

⁸ Asian Development Bank and World Bank, *Country Gender Assessment: Mongolia* (2005) 50. Note: The percentage of women in Parliament was 23% in 1990 and dropped to 7% in 2004.

responses to these challenges. The report concludes by offering recommendations on how to address some of the issues raised.

II. GOLD MINING IN MONGOLIA

Formal Mining

Mongolia is host to a rich array of mineral deposits. Development of these deposits, by mining companies large and small, has been a critical source of economic growth during a challenging time of economic transition. Gold mining in particular has been an important contributor to the Mongolian economy; some argue that the formal gold mining sector is responsible for keeping the economy as “buoyant as it is during economic transition.”⁹

All gold mining in Mongolia is open pit mining. Although placer mining is the predominant source of gold production, hard-rock gold mining is conducted throughout Mongolia as well. The latter type of mining often involves chemicals such as cyanide or mercury in the extraction or amalgamation process. Gold production has grown exponentially since formal mining began in 1994 and shows no signs of slowing down, with current annual production exceeding 13 tons.¹⁰

Informal, or “Ninja”, Mining

With the growth of the formal gold mining sector have come parallel developments in the informal gold mining sub-sector, comprised of illegal gold prospectors. Informal mining in Mongolia began around the year 2000 and as of 2003 it was estimated that there were over 100,000 informal, or ninja,¹¹ miners; with a “consensus that the number of informal gold miners has been rapidly increasing,” one can only surmise that current figures are far higher.¹² These figures are particularly impressive when assessed against the backdrop of Mongolia’s small population: 100,000 people is equivalent to 20 percent of the rural workforce.¹³

The number of ninja miners has increased to such an extent that “in some districts... semi-urban aggregations of several thousand people ha[ve] emerged.”¹⁴ Informal mining occurs in nearly every aimag¹⁵ and ninjas include individuals from all walks of life: former and current herders, pensioners, university students, the curious, the unemployed and those who have temporarily left low-paying positions or unsuccessful businesses in order to try their hand at what they’ve heard is a much more lucrative occupation. Ninjas work part-time, seasonally or year-round, depending on the individual. While some have chosen to try ninja mining on their own, “the majority are family units, often supplemented by family relatives and friends.”¹⁶

⁹ Mongolian Business Development Agency (MBDA), *Ninja Gold Miners of Mongolia: Assistance to Policy Formulation for the Informal Gold Mining Sub-sector in Mongolia* (2003) 19. [Hereinafter *Ninja Gold Miners of Mongolia*.]

¹⁰ *Id.* at 18. See also, ILO, *Informal Gold Mining in Mongolia: A Baseline Survey Report Covering Bornuur and Zaamar Soums, Tuv Aimag* (2006) 17.

¹¹ The term “ninja miner” comes from their carrying a green, plastic pan on their backs for use in mining and their consequent resemblance to the “ninja turtles” from the well-known cartoon series. The term is often used to refer to all informal miners in Mongolia.

¹² *Ninja Gold Miners of Mongolia* 19.

¹³ ILO, *Informal Gold Mining in Mongolia: A Baseline Survey Report Covering Bornuur and Zaamar Soums, Tuv Aimag* (2006) 17.

¹⁴ *Ninja Gold Miners of Mongolia* 19.

¹⁵ An aimag is the equivalent of a province in Mongolia.

¹⁶ *Ninja Gold Miners of Mongolia* 53.

Informal gold mining is a relatively new development in Mongolia and, as such, a “policy vacuum exists.”¹⁷ Such mining is largely unregulated and very few informal gold miners have the legal right to mine gold. However, due to the unfortunate effects of economic transition: high unemployment, a lack of income-generating opportunities, insufficient wage levels and the introduction of user fees for health and education, informal mining presents an attractive income-generating opportunity that many cannot afford to resist.¹⁸

III. WOMEN AND MINING

A. Female Ninja Miners

Of the more than 100,000 ninja gold miners in Mongolia, it is estimated that 45-50% are women.¹⁹ These women range in age from 16 to 60 years old and, while a very few have chosen to mine on their own, the vast majority of them have moved to mining sites with friends and family. We interviewed over twenty female ninja miners in the course of our research. While there was some divergence in experiences according to location – for example mercury use in the amalgamation process was widespread at the sites in Dornod and Omnogov Provinces and non-existent at the placer mining site in Ovorkhangai – the challenges and issues raised were fairly consistent across the board. Where discrepancies did exist, they will be noted.

In the course of focus groups and personal interviews, it became apparent that the issues of greatest concern to female ninja miners were those related to health and security. Other challenges included a heavier workload for ninja women, the difficulty of being separated from their children and the worrying trend of young girls abusing alcohol at ninja mining settlements.

Health

• Mercury Use

One of the biggest health risks for female ninja miners is mercury exposure. In Mongolia, mercury is often used at hard-rock mining sites in the gold processing stage to extract the gold from the ore. The ore²⁰ is first crushed into small pieces, the mercury is added to the crushed ore and the gold is amalgamated with mercury. The amalgam is then heated and the mercury is released into the air as vapour; all that remains is the gold.

Typically, women are responsible for carrying out this amalgamation process.²¹ This division of labour is based on a combination of physical strength disparities – men are often responsible for more physically demanding tasks such as “digging, sledge hammering and hoisting” while women engage in processing and “predominate in assisting from the surface” – and traditional gender roles that relegate household and family responsibilities to women.²² As the amalgamation

¹⁷ Ninja Gold Miners of Mongolia 22.

¹⁸ ILO, *Informal Gold Mining in Mongolia: A Baseline Survey Report Covering Bornuur and Zaamar Soums, Tuv Aimag* (2006) 18.

¹⁹ *Id.*

²⁰ Note: As mentioned above, only women interviewed in Dornod and Omnogov Provinces, which were hard-rock sites, used mercury. Those interviewed in Ovorkhangai Province engaged in placer mining, which does not require mercury for gold processing.

²¹ See interviews conducted in Dornod Province. See also ILO, *Informal Gold Mining in Mongolia: A Baseline Survey Report Covering Bornuur and Zaamar Soums, Tuv Aimag* (2006) 36, 60.

²² *Ninja Gold Miners of Mongolia* 208.

process can be, and often is, done from home, women are able to continue to care for their children and attend to household tasks while also participating in informal mining and earning extra income.²³

Mercury exposure can have a variety of serious health effects. Mercury vapour causes damage to the kidneys and central nervous system.²⁴ Symptoms may include “tremors, emotional changes (e.g. mood swings, irritability, nervousness), insomnia, neuromuscular changes (e.g. weakness, muscle atrophy, twitching), headaches ... [and] performance deficits on tests of cognitive function.”²⁵ Not only are women likely to experience these effects disproportionately, but their children will also be affected, as they tend to be near their mother during the amalgamation process. Exposure to mercury vapour may have adverse effects on these children’s neuro development.²⁶

Mercury exposure is particularly dangerous for pregnant women: it “pass[es] readily from maternal blood through the placenta to the foetus and may result in twice the amount in the baby’s blood. Breastfeeding also exposes babies to these compounds.”²⁷ A study carried out in mining districts in the Czech Republic found a correlation between maternal mercury exposure and low birth-weight and premature births.²⁸

This hazardous task thus poses serious threats to women’s health and to that of their children. Further, as women are often responsible for attending to family health, any adverse health effects experienced by the family from mercury exposure simply add to their workload, as the role of caretaker falls to them. When asked whether they were aware of the dangerous nature of mercury, all the ninja women who used mercury responded affirmatively.²⁹ However, these women admitted that they did not fully understand how or why mercury was hazardous and what the specific dangers were to their health, children or environment.³⁰ Mercury education was not part of their secondary school curriculum and these women had limited access to such information otherwise.

This situation indicates the need for an education initiative that, among other things, introduces mercury education into the national secondary school curriculum. It also highlights the need to target women in the introduction of mercury recycling technologies, such as a retort, that will reduce the amount of mercury released into the environment and thus limit the risk of adverse health effects.³¹

²³ Id.

²⁴ MiningWatch Canada, *Overburdened: Understanding the Impacts of Mineral Extraction on Women’s Health in Mining Communities* (2004) 20. [Hereinafter *Overburdened*].

²⁵ U.S. Environmental Protection Agency, *Mercury: Health Effects: Elemental Mercury Effects* (2006), available at www.epa.gov/mercury/effects.htm.

²⁶ See *Overburdened* 21: “Children who assist their parents in small-scale gold mines, or who live near by, are often exposed to mercury vapours or methylmercury, and have been found to have impaired neuro development.”

²⁷ Id.

²⁸ Id. See also Epstein, H., J. Dejmek, P. Subart, N. Viternovaa and R. J. Saraam, Trace metals and pregnancy outcome in the Czech Republic, *Env. Epidemiol. Toxicol* 2(1) (2000) 13-19.

²⁹ See interviews conducted in Dornod and Omnogov Provinces.

³⁰ Focus Group Interview, Dornod Province, June 16, 2006.

³¹ See Peter W. Uitterdijk Appel, *Small-Scale Mining in Mongolia – A Survey Carried Out in 2004* (2004) 14, available at http://www.geus.dk/program-areas/common/geus_rep_2005-4.pdf: A retort “can recycle up to 95% of the mercury used in amalgamation.”

It is apparent that in an effort to support their families and generate income, women will continue to use mercury despite knowledge of its toxicity. This was affirmed by many of the women we spoke to. However, it is not clear that these women were aware of the effects that mercury was having, or could have, on their children or of the specific long-term implications of mercury use for their own health. Thus, mercury education combined with the introduction of more efficient and safer technologies could likely lead women to change their practices to minimise theirs, and their children's, exposure to the toxic substance. It is therefore imperative that women are given access to health information that will allow them to make informed decisions about protecting their health and that of their families.

● **Poor Working Conditions**

Mercury is only used for processing in hard-rock – as opposed to placer – gold mining. Women interviewed at the placer mining site in Ovorkhangai all responded that dangerous and difficult working conditions, such as climbing into deep and often unstable holes to dig for gold, panning in water often up to their knees and digging in dusty environments, were their biggest health-related challenges. Female ninja miners engaged in hard-rock gold mining are also confronted with some of these same challenges.

● **Tunnelling**

Women, particularly younger women, often work underground as “tunnellers”. This entails climbing and digging their way down into holes that can be up to 15 metres deep, collecting paygravel and hoisting it up to the surface. One study on ninja mining noted that “women’s bodies are more flexible, smaller and more compact, rendering them quicker at tunneling and more manoeuvrable at bagging and turning.”³² This “advantage” often places women in great danger. In Omnogov and Ovorkhangai Provinces women told many stories of unstable holes suddenly collapsing inwards and women and men being trapped underneath. Many ninjas are killed in such accidents.³³

“It is a terrible feeling to go down into those holes,” explained a 25-year-old woman in Ovorkhangai Province. She had been ninja mining for only 10 days and already been injured in the leg by falling debris. An older woman informed us that she refused to let her military-trained son go down into the holes, claiming it was too dangerous. Instead, she went herself. She had recently broken her wrist while engaged in such work.

● **Panning**

Female placer ninjas primarily serve as panners, a job consisting of “tedious backbreaking work, especially difficult in wintertime while panning for long hours standing on ice using cold water.”³⁴ Many of the women interviewed cited the wet working conditions, and standing in wet clothing all day, as one of their biggest challenges.³⁵ Few of the

³² Ninja Gold Miners of Mongolia 209.

³³ Interview, Omnogov Province, July 4, 2006.

³⁴ Ninja Gold Miners of Mongolia 209.

³⁵ See, for e.g., Interview, Ovorkhangai, July 18, 2006.

women we spoke with used adequate or even minimal protective gear, such as knee-high rubber boots, rubber gloves or waterproof clothing, while panning. Women also complained of the intense heat and overexposure to the sun while working outside during the summers. These conditions often gave them headaches, yet few were wearing baseball caps or protective head coverings as recommended by the ILO in its minimal safety requirement guidelines.³⁶

● **Dusty Environment**

Female ninja miners in Ovorkhangai unanimously expressed their concern about the dusty work conditions, which often lead to continuous respiratory problems and near-chronic colds. Silicosis, a common respiratory disease in gold mining communities, is another health risk. Despite the effects these dusty work conditions were having on their health, not one woman interviewed was wearing a face mask. The obstacles are not financial in nature – a face mask costs 400 Mongolian tugrik³⁷ at any local pharmacy – but rather a question of access to information. Educational initiatives concerning protective gear and safety standards are crucial to help women make informed decisions about their health.

● **Conclusions**

The women engaged in tunneling, panning and working in dusty conditions all face a similar disadvantage: a lack of adequate experience and knowledge about mining safety measures and standards. A 2006 ILO/IPEC-funded Baseline Survey on informal gold and fluorspar mining stated that the primary cause of mining accidents was precisely this issue – poor knowledge of safety issues and disregard for safety standards. Individuals under 30 years of age, the age group of the women most likely to work underground, were particularly at risk as their “level of knowledge is considerably low.”³⁸ The study further revealed that “[t]he percentage of women working in gold and fluorspar mines who reported lack of knowledge on safety and hygienic standards (72.5 and 72.0 percent respectively)³⁹ is quite high compared to that of men (62.8 and 18.8 percent respectively).” Thus, educational initiatives targeting women and focusing on ensuring awareness of minimal safety precautions and labour protection standards are critical. Providing access to information will allow women to better protect themselves.

● **Water Pollution**

Access to clean water is one of the basic determinants of health and well-being. It is also one of the biggest challenges for women in informal gold mining. Nearly “all mining in Mongolia is open pit ... requir[ing] removal of overburden and often the use of large quantities of water.”⁴⁰ This has resulted in the contamination of streams, rivers and mine ponds in and around mining communities from “polluted mine effluents and emissions that seep into the ground water and soil.”⁴¹ A lack of potable water and

³⁶ ILO, *Informal Gold Mining in Mongolia: A Baseline Survey Report Covering Bornuur and Zaamar Soums, Tuv Aimag* (2006) 48

³⁷ 1 US dollar is approximately 1414.5 Mongolian tugrik (June 2009)

³⁸ ILO/IPEC, *Baseline Survey on Child and Adult Workers in Informal Gold and Fluorspar Mining* (2006) 99.

³⁹ *Id.*

⁴⁰ UNDP, *Economic and Ecological Vulnerabilities and Human Security in Mongolia* (2005).

⁴¹ *Overburdened* 23.

shortage of water for household chores is often a serious concern in *ninja* mining areas. The situation is especially difficult in dryer areas, such as the Gobi desert, where water is critical to survival in the summer heat.

Women in Mongolia are particularly vulnerable to water pollution as they are “the primary users of water for household consumption.”⁴² The division of labour in Mongolia is such that women are typically responsible for gathering water, preparing meals, washing dishes and clothes and bathing their children. Thus, they are more exposed to polluted water and more likely to suffer from any resultant health effects. Further, when water becomes scarce they face “the added burden of managing scarce resources.”⁴³ While personal interviews and focus group discussions suggest a degree of awareness of the pollution problem among women, there is also evidence that a clear knowledge gap exists as to the extent of the pollution and which water sources are in fact free from contamination.

Ninja women in Omnogov Province in the Gobi desert were particularly frustrated by the limited water supply, explaining that there was insufficient water for them to accomplish all the tasks for which they were responsible, such as washing clothes.⁴⁴ Women in Dornod Province expressed concern about mercury contamination of their water sources.⁴⁵ Similarly, *ninja* women in Ovorkhangai Province recognised that the mining had seriously affected the local water quality, some even going so far as to buy bottled water, despite the considerable expense, rather than drink from local wells or groundwater.⁴⁶

However, other women from Dornod and Ovorkhangai Provinces, who obtained their drinking water from wells, rivers at locations upstream from mining areas or springs with sources deep underground, seemed unconcerned, claiming that their water sources had not been affected by mining pollutants. Preliminary results from tests conducted in 2006, analysing the composition of precisely those water sources, appear to contradict these widespread beliefs and may suggest that these “safe” water sources have not, in fact, escaped contamination.⁴⁷

The lack of accurate information concerning the extent of the water contamination around mining settlements is a source of concern. If individuals are to make informed decisions about their water supply, systematic testing of water sources around *ninja* mining settlements to determine the degree of contamination is critical. Further, educational initiatives concerning the dangers of water pollution and the steps that can be taken by miners to minimise this environmental damage are also vital, both to protect the health of those living at or near mining settlements and to ensure long-term environmental sustainability.

⁴² Asian Development Bank and World Bank, *Country Gender Assessment: Mongolia* (2005) 33.

⁴³ *Id.*

⁴⁴ Interview, Omnogov Province, July 4, 2006.

⁴⁵ Interview, Dornod Province, June 16, 2006.

⁴⁶ Interview, Ovorkhangai Province, July 18, 2006.

⁴⁷ These findings are from preliminary tests conducted by a geologist that accompanied us on the field trips to Dornod and Omnogov Provinces.

● Sanitation

Sanitation practices at most ninja mining sites are incredibly poor. This simply adds to women's burdens, as women in Mongolia are deemed "responsible for managing family sanitation standards."⁴⁸ At the ninja mining site in Ovorkhangai Province, for example, the 30,000 current residents live in overcrowded, makeshift conditions, with no latrines, no designated areas for waste or garbage disposal and few locations where they can bathe or do their washing. The current and potential effects on public health are significant. The local Uyanga *soum* (district) doctor was deeply concerned about the number "of cases of contagious stomach diseases spreading rapidly throughout the ninja population because of poor sanitation."⁴⁹ Reports suggest that human parasites, such as lice and bed-bugs, are common in ninja mining settlements and the potential for outbreaks of typhoid, tuberculosis, influenza, cholera and other contagious diseases is high.⁵⁰

A woman's ability to maintain adequate hygiene and sanitation standards in such a context is limited at best and the lack of clean, uncontaminated water only compounds her difficulties. Further, should an outbreak of disease occur, women would likely bear the responsibility for caring for family members who fall ill. The lack of formal legal recognition of ninja mining is largely responsible for these conditions. By deeming these settlements illegal, the government is able to avoid its obligation to ensure that sanitation and water quality standards are met and effectively prevent ninja miners from asserting these rights under the law. A legal and regulatory framework governing ninja mining is thus essential to ensure that, for example, government initiatives concerning the provision of sanitation and water services in urban areas include ninja mining settlements in their action plans.⁵¹

● Access to Health Care Services

All of the aforementioned health issues: mercury exposure, occupational health and safety concerns, water pollution and poor sanitation, are further exacerbated by a lack of access to health services. Not one of the ninja mining sites has formal health services or facilities. This is an issue of great concern to women: in a recent survey where female ninja miners were asked for their thoughts on how best to improve the ninja mining sites, one of their primary responses was "a medical unit."⁵²

Access to services is limited in three respects: physically, financially and administratively. Ninja mining sites are often far from peri-urban or *soum* centres where the nearest hospitals and formal health services are located. Transportation may be difficult to organise and roads are often poor, discouraging women from undertaking hospital visits in non-life threatening contexts and making access to services in emergency situations quite difficult. In a country where "maternal mortality rates have risen sharply since

⁴⁸ Asian Development Bank and World Bank, Country Gender Assessment: Mongolia (2005) 33.

⁴⁹ Interview with *soum* doctor, Uyanga *Soum*, Ovorkhangai Province, July 20, 2006.

⁵⁰ Ninja Gold Miners of Mongolia 224.

⁵¹ See, for e.g., government actions plans targeting urban areas in UNDP Publication, Access to Water and Sanitation Services in Mongolia (2004) 30, 34.

⁵² Ninja Gold Miners of Mongolia 209.

transition”, due in part to “remote services” and the “distance from the medical care centres or late arrival”, women cannot afford to pay the price of such inaccessibility.⁵³

Second, with the introduction of user fees for health and insurance services in the post-socialist period, health care became a luxury for many.⁵⁴ Of the six female ninja miners we interviewed at the large ninja mining site in Ovorkhangai and asked if they had health insurance, five responded that they did not.⁵⁵ All the women we spoke with at the ninja mining site reported that the majority of women at the site did not have health insurance.⁵⁶ This obviously results in higher fees for these women when they do require medical care and presents a considerable financial barrier to their access to health care. This conclusion is confirmed by recent studies, which found that lack of insurance coverage is one of the “key reasons for failing to use health services” in Mongolia.⁵⁷ In addition, the financial obstacle presented by user fees has been cited as a central reason for the higher maternal mortality rates in Mongolia since transition.⁵⁸

Finally, administrative restrictions have served to severely limit ninja miners’ access to health services. In Mongolia, individuals must be registered in their local area in order to access any social welfare benefits. When an individual moves to another place of residence, they must de-register and then pay a fee to re-register at their new location. The vast majority of individuals become ninja miners precisely because they are unable to make ends meet; as such, this registration process involves administrative and financial obstacles that some women and families are simply unable to overcome. Further, the majority of ninja miners are migrants and many are seasonal or temporary workers, planning to stay only a few months to a year. In these cases, it is often not worth taking on the financial and transaction costs required to shift their registration status. Those who both migrated within the same province to their ninja mining site and have health insurance are still able to access benefits and services in *aimag*, or province, centres. However, these centres are even further away than *soum* centres and such individuals are in the minority.

This administrative system leaves many women without access to critical benefits⁵⁹ and, as a recent United Nations Children’s Fund (UNICEF) publication aptly noted: “This registration fee raises problems for poor people and locks them out of the social support system. The registration rules are in direct contradiction to guarantees of health care, non-discrimination and freedom of movement contained in the Mongolian Constitution.”⁶⁰

⁵³ UNIFEM, *Women in Mongolia: Mapping Progress Under Transition* (2001) 25. See also, UNICEF, *Children and Women in Mongolia: Situation Analysis Report – 2000* (2000) 54; Asian Development Bank and World Bank, *Country Gender Assessment: Mongolia* (2005) 39.

⁵⁴ Asian Development Bank and World Bank, *Country Gender Assessment: Mongolia* (2005) 14.

⁵⁵ See generally, Interviews from Ovorkhangai Province, July 18-19, 2006.

⁵⁶ Id. Although private health insurance is technically available to ninja miners, and the unemployed more generally, coverage is insufficient and additional fees are typically required for many services.

⁵⁷ Asian Development Bank and World Bank, *Country Gender Assessment: Mongolia* (2005) 42.

⁵⁸ Asian Development Bank and World Bank, *Country Gender Assessment: Mongolia* (2005) 39.

⁵⁹ For example: “[T]o access social welfare benefits... applicants must have an internal passport, an application letter, medical certificate of pregnancy plus a birth certificate (within four weeks of birth) for a maternity benefit . . . Due to the costs of changing registration, poor migrant women are often not registered in the local area (particularly in Ulaanbaatar) and may also not be registered with the local family doctors. Without registration, they are unable to get a birth certificate, medical certificate or letter from the local administration.” UNFPA, *Reproductive Health, Gender and Rights in Mongolia* (2000) 33.

⁶⁰ *Children and Women in Mongolia: Situation Analysis Report – 2000* (2000) 74.

All these barriers to access to health services have forced many ninja women to attend to their health themselves – or to ignore their health problems entirely. Interestingly, their behaviour often stands in strong contrast to that of their male ninja counterparts. The local *soum* doctor in Uyanga noted that women rarely come to the hospital when injured and instead attempt to treat themselves, whereas male ninja miners regularly come to the hospital for treatment of their injuries.⁶¹

One ninja woman we interviewed in Overkhangai Province had broken her wrist two months before and had still not sought medical care. She has no health insurance and typically ignores her medical problems, explaining that minor health problems among ninja miners are common and often chronic and that she doesn't care if she gets sick.

Ironically, many of these women who ignore their own health needs chose to become ninja miners in order to pay hospital bills and health care costs for their parents or children.

These barriers to health care emphasise the need for accessible health services within mining settlements. They also highlight the need to reform administrative registration requirements in order to improve financial and administrative access to social services.

• Sexually Transmitted Infections (STIs)

The mining context is ripe for the spread of STIs. The miners' transient and uncertain lifestyle, illegal status, dangerous working conditions and lack of access to health care often causes individuals to conclude that the danger of HIV or STIs is too remote a prospect to concern themselves with when faced with the daily uncertainties of their lives. High levels of alcohol use among men and more moderate alcohol consumption among some women at ninja mining sites only exacerbates the problem, as it makes individuals more likely to engage in high-risk behaviour. Commercial sex workers (CSWs) are also common in most ninja mining communities and these women are particularly vulnerable to sexually transmitted infections.

When asked to describe the primary health issues faced by female ninja miners in her district, the Uyanga *soum* doctor immediately mentioned sexually transmitted infections. Based on the number of women that come to her hospital for treatment of syphilis and trichomoniasis, she said she could only surmise that the number of cases in the ninja mining population as a whole was far greater. She also noted that STIs among women are common in the local population as well and are not solely a ninja mining issue. However, due to the context in which miners lived and worked, the potential for an STI explosion or HIV/AIDS epidemic in the mining community was enormous.

⁶¹ Interview with *soum* doctor, Overkhangai Province, July 20, 2006.

The number of reported sexually transmitted infections in Mongolia has been steadily increasing over the course of the last decade and a half: between 1989 and 1998, syphilis and gonorrhoea rates increased by 66% and 56% respectively.⁶² This trend has only continued; the Ministry of Health's National Health Indicators for 2005 demonstrate an increase in the number of reported cases of gonorrhoea, syphilis and trichomoniasis from the year before.⁶³ One World Health Organisation (WHO) report predicts that Mongolia "is at the brink of an HIV epidemic with an imminent risk of the widespread dissemination of HIV to the general population through sexual transmission."⁶⁴ As of February 2007, there were at least twenty-eight reported cases of HIV infection in Mongolia; twenty of those cases were reported in 2005-2006 alone.⁶⁵

The high rates of STIs are directly linked to the low prevalence of condom use in Mongolia. A 2000 study found that only 2.8% of female contraceptive users are using condoms.⁶⁶ A 1999 baseline study aimed at secondary students in Mongolia showed that condom use among young people was disconcertingly low: 70% of those surveyed reported not using a condom the last time they had sex.⁶⁷ Girls were more likely to have had sex without a condom (90%) than boys (65%).⁶⁸ The same study found that young people's knowledge about STIs/HIV and their awareness of methods of prevention, for both STIs/HIV and pregnancy, is incredibly limited. The mean knowledge score for girls was even lower than it was for boys.⁶⁹

Women are typically at a disadvantage when negotiating condom use. This fact, combined with evidence of a very limited understanding of STIs and prevention methods among women and girls, places Mongolian women at high risk for acquiring STIs. STIs, in turn, make women more vulnerable to HIV infection. A lack of access to health services (for all the aforementioned reasons), and thus to contraceptives, contributes to the problem. The Uyanga *soum* hospital currently administers a highly successful free condom provision programme; however, there are no such programmes within the mining community itself. While some *ger* (yurt) shops at the mine site do sell condoms, they are neither publicly displayed (rendering them a matter of insider knowledge), nor free. Despite these obstacles, one *ger* shop owner we interviewed said that condoms were a popular commodity and sold quickly – however, all the purchasers were men.⁷⁰

It is clear that women in Mongolia are less informed and less protected in their sexual encounters than men. Educational campaigns targeted at women and men and conducted at the mining site itself are essential. The promotion of condom use to prevent transmission of infectious diseases and the provision of free condoms at the mining sites

⁶² UNFPA, *Reproductive Health, Gender and Rights in Mongolia* (2000) 16.

⁶³ WHO, *Scaling Up Towards Universal Access to HIV/AIDS Prevention, Treatment, Care and Support: Country Report Mongolia* (2006) 3.

⁶⁴ *Id.*

⁶⁵ UNICEF, *HIV and AIDS Situation in Mongolia* (2007), http://www.unicef.org/mongolia/activities_2589.html. See also WHO, *Mongolia: Health Situation and Trend* (2007), http://www.wpro.who.int/countries/mog/health_situation.htm.

⁶⁶ UNFPA, *Reproductive Health, Gender and Rights in Mongolia* (2000) 14. Note: Intrauterine Devices (IUDs) were most popular.

⁶⁷ Irvin, Andrea. *Knowledge, Attitudes and Practices Related to Reproductive Health and Sexuality Among Selected Secondary School Students in Mongolia: 1999 Baseline Survey* (2002) 27.

⁶⁸ *Id.*

⁶⁹ *Id.* at 32-33.

⁷⁰ Interview, Ovorkhangai Province, July 19, 2006.

are also critical steps towards addressing these high STI rates. These initiatives must be carried out in a gender-sensitive manner, taking into account privacy concerns such that women are able to access condoms in a non-public fashion. Women must be empowered with the knowledge and confidence to protect themselves in their sexual relationships.

Security Concerns

● Alcohol and Violence

A major issue raised by nearly all female ninja miners interviewed (and nearly all females interviewed in general) was that of alcohol abuse. Excessive, regular alcohol use is a serious problem at ninja mining sites throughout Mongolia. Men are by far the primary abusers, although there are some women who drink regularly as well.

The reasons for this are many. There is a commonly held belief among male ninja miners that drinking alcohol will help them find gold.⁷¹ An International Labour Organization (ILO) study found that “many informal gold miners believe, mistakenly, that alcohol eases stress and mercury poisoning.”⁷² A *ger* shop owner explained the chronic drunkenness another way: men buy alcohol in order to celebrate when they’ve found gold, and to console themselves when they have not.⁷³ Alcohol use is thus rampant and the sale of alcohol is by far the most profitable business at ninja mining sites.

Driving through the ninja mining site in the late morning, we observed many men lying on the side of the road or slumped against *gers*, having passed out from their drinking binge the night before. Some of these men had still not moved by early evening. In the colder months, and even on cooler nights during the summer, many ninja men die this way, freezing to death in the night air. It is also quite common for men to meet their deaths by falling into a mine hole at night in a drunken stupor.

● Fear and Anxiety

Many of the female ninja miners interviewed expressed fear and anxiety at having to live and work amongst a large number of drunken men. They felt threatened by these men, who often turned violent and fought one another. While many women claimed such behaviour did not bother them, they qualified this by saying that they rarely ventured far from their *gers* at night and made sure not to involve themselves in any disagreements they overheard outside.

This limitation on women’s freedom of movement is restrictive and often stressful. One woman explained that while she did not feel personally threatened she worried that, in the course of the frequent fighting and rock throwing that often resulted when the ninja men were drunk, she or her children would one day be hit by a stray rock.⁷⁴ In a survey soliciting recommendations for improvements to the ninja settlements, women requested “their own police unit to protect [them] from drunks.”⁷⁵

⁷¹ Interview, Omnogov Province, July 4, 2006.

⁷² ILO, *Informal Gold Mining in Mongolia: A Baseline Survey Report Covering Bornuur and Zaamar Soums, Tuv Aimag* (2006) 45.

⁷³ Interview, Ovorkhangai Province, July 19, 2006.

⁷⁴ Interview, Ovorkhangai Province, July 19, 2006.

⁷⁵ *Ninja Gold Miners* 209.

Ninja woman working on their own, or that are female heads of households (FHH), are particularly vulnerable to violence by drunk men in the community as they have no one to protect them in case of attack.

“People come here from all over – we are strangers to one another and do not know each other for the most part. It is not such a secure environment. There have been people beaten up. There was one drunk man in a nearby *ger* who was beating his wife quite badly. All these men and women just stood by and watched and I was the only one who tried to intervene in this domestic violence situation to stop him. When I did so, he also beat me very badly and again everyone just stood by and watched. I am alone at the camp, with no husband to protect me, and there was no one to come to my aid. I had to go to the hospital and was there for 2 days.

This is a scary place and I want to leave immediately. It is very difficult for women here, particularly single women. People typically come and ninja mine as couples – it is far too dangerous for a single woman to come work here alone. But for married women it can be just as hard - that man beats his wife often.”

– Female Ninja Miner, Gobi Desert

● Domestic Violence

As illustrated by the previous story, alcohol-fueled violence is not limited to fighting between men. Although most ninja women were reluctant to discuss the issue of domestic violence, it is clearly a cause for concern. Violence against women is a serious issue nationwide; it is estimated that one in three women in Mongolia have experienced some form of domestic violence at the hands of a male family member.⁷⁶ Further, “[a]lcohol is most frequently cited as both causing and exacerbating domestic violence” in Mongolia.⁷⁷ International evidence supports this contention, showing both that “women who live with heavy drinkers run a far greater risk of physical partner violence, and that men who have been drinking inflict more serious violence at the time of an assault.”⁷⁸

The health consequences of domestic violence for women are manifold: they face not only the risk of immediate physical injury, but “being a victim of violence also increases a woman’s risk of future ill health.”⁷⁹ There are also mental health repercussions, with such violence rendering women susceptible to depression, suicide attempts and psychosomatic disorders.⁸⁰ A survey of female victims in Mongolia found that domestic violence affected their self-confidence, their desire to participate in public activities, their social status and their level of patience in dealing with and caring for their children.⁸¹

Critically, studies have shown that women who are victims of domestic violence are also more vulnerable to unwanted pregnancy and STIs, such as HIV, as violence often

⁷⁶ National Centre for Violence Against Women and The Centre for Child Rights, Survey on Violence Against Women and Children (1999).

⁷⁷ Asian Development Bank and World Bank, Country Gender Assessment: Mongolia (2005) 44.

⁷⁸ Krug EG et al., eds, World Report on Violence and Health, Geneva, World Health Organisation (2002) 98.

⁷⁹ Id. p.100.

⁸⁰ Id. p.101.

⁸¹ Asian Development Bank and World Bank, Country Gender Assessment: Mongolia (2005) 45.

leads to “coerced sex ... or interfer[ence] with a woman’s ability to use contraceptives, including condoms.”⁸² In a context where STIs are widespread and the potential for an HIV epidemic is considerable, the increased vulnerability of women to STIs through domestic violence is of grave concern.

Recourse or support for those affected is particularly difficult to come by in ninja mining communities. Typically, women in Mongolia will seek out assistance and temporary shelter from family and friends when faced with a serious domestic violence situation. However, women in mining communities are often isolated from their traditional familial and social support networks, or *khureelel*. This very fact often renders women even more vulnerable to domestic abuse. Unfortunately, the alternatives are limited; there are few shelters in Mongolia and certainly none located in or around ninja mining settlements. As for legal recourse, such avenues are difficult to pursue in a major city such as Ulaanbaatar and thus even harder to realise in the lawless, isolated and unregulated context in which ninja miners live.

Domestic violence is a clear violation of a woman’s right to live free from violence. This issue urgently needs to be addressed through education campaigns that target men, to address male behaviour and attitudes, and woman, to ensure that women are aware of their rights and empowered to act in their self-interest. Further, the 2004 Domestic Violence Bill must be better implemented and publicised in rural areas and mining settlements. While the National Centre Against Violence (NCAV) has been trying to raise awareness of the new law, their efforts have been limited to urban centres in a few locations throughout the country.⁸³ Most importantly, strict regulation of the sale and consumption of alcohol at ninja mining sites is imperative. Women themselves, when asked how the ninja mining settlements could be improved, have explicitly requested that *ger* shops not be allowed to sell vodka.⁸⁴

● Local Police and Mine Security Guards

Female ninja miners were also concerned about the threat they face from local police and mine security guards. In many informal mining areas, conflicts often erupt between ninja miners and the local police or mine security officials. For example, in Zaamar, a large ninja mining site west of Ulaanbaatar, miners have “said it is quite common for policemen and security guards to beat them, demand cash and force them to leave the sites.”⁸⁵ Women are particularly vulnerable in such situations, as they are at a distinct physical disadvantage and often less capable of fighting back.

Ninja miners’ status is often precarious: the work they do is technically illegal and grounds for expelling them from their settlements, yet they often have a tacit agreement with local officials who tolerate or ignore them – until they begin to threaten large-scale, formal mining interests. When ninja miners encroach onto land licensed by mining companies, or are perceived by these companies to be benefiting from gold mining in an area they are considering mining themselves, mining companies feel threatened.

⁸² Krug EG et al., eds, *World Report on Violence and Health*, Geneva, World Health Organisation (2002) 101.

⁸³ Interview with National Centre Against Violence employee from Bayankhongor Aimag Centre, June 29, 2006.

⁸⁴ *Ninja Gold Miners of Mongolia* 209.

⁸⁵ ILO, *Informal Gold Mining in Mongolia: A Baseline Survey Report Covering Bornuur and Zaamar Soums, Tuv Aimag* (2006) 46.

In response, often with the aid or collaboration of local police and government officials, companies will intimidate and harass local ninja miners, using violence and fines to force them to abandon their mining site. The lack of any sort of official government policy or legal framework governing informal mining makes it difficult for ninja miners to assert their rights and defend their efforts to earn money to provide for themselves and their families.

“This area is not under the control of policeman or inspectors. They do not protect the people, they are just concerned about protecting the land.”

– Female Ninja Miner, Uyanga *Soum*

“We are all from this province. We only dig small holes and we work hard. We shouldn’t have to leave!”

– Female Ninja Miner, Omnogov Province

The women we spoke with were very concerned about this constant threat of violence and forcible removal. In Omnogov Province, women reported that the local mining company had taken some people back to their headquarters and kept them there for two days in order to intimidate them and teach them a lesson. These women now hide when local officials or mine employees come to their mining site, reemerging only after they have left. In Dornod Province, women told of being shot at by security guards while ninja mining; many women were too afraid to continue after this incident.

Clearly, a legal framework governing informal mining needs to be created so that ninja miners can confidently assert their rights and safely engage in their work without the threat of being evicted or harassed. A survey of one group of ninja women demonstrates the high price they place on a peaceful working environment, finding that women were even willing “to pay a fee for mining in return for calm working conditions.”⁸⁶

Other Issues

● Girls and Alcohol Use

While at the Uyanga ninja mining site, we spoke with one woman who voiced concern over the growing number of young “ninja girls” that had begun to drink alcohol on a regular basis. Many girls in the 8th or 9th grade, between the ages of 16 and 17, work as ninja miners for the summer during their school breaks. With little to do at the ninja settlement at night, and with extra income from their mining efforts, these girls have begun to buy cigarettes and alcohol. In the evenings, they often get drunk together in groups of three or four in the hills behind the ninja mining camp.⁸⁷ The much-needed regulation of alcohol sales, as mentioned earlier, would assist in addressing this problem.

⁸⁵ ILO, *Informal Gold Mining in Mongolia: A Baseline Survey Report Covering Bornuur and Zaamar Soums, Tuv Aimag* (2006) 46.

⁸⁶ *Ninja Gold Miners of Mongolia* 209.

⁸⁷ Interview, Ovorkhangai Province, July 19, 2006.

● Increase in Workload

Female ninja miners face the dual burden of attending to household tasks while taking on new mining responsibilities. Ninja women working near Uyanga *soum* reported that they often spent 8-10 hours a day on mining and that if they managed to strike gold they would often work through the night. This is an addition to the approximately 37 hours per week that women spend on average on household tasks such as cooking, cleaning, sewing, fetching water and fuel, and caring for the old/sick/infirm, among other things.⁸⁸ Men, while they do contribute, spend far less time per week on household tasks.⁸⁹ Further, a recent ILO/IPEC Baseline survey noted that “[i]n any kind of mines, the percentage of women who reported having holidays is lower than that of men.”⁹⁰ In sum, “in terms of workload, [ninja] women are overloaded.”⁹¹

This challenge is further exacerbated in the ninja context by women’s lack of traditional support networks, or *khureelel*, which are typically comprised of both family and friends. In Mongolia, “[w]omen have demonstrated that demands on their time can be relieved to some extent by sharing tasks through social networks.”⁹² However, most female ninja miners have migrated away from these networks, leaving them with no alternative but to bear the burdens of household tasks, caring for the family and mining on their own. Female-headed households are likely more affected than others by the absence of such a safety net.

The creation of women’s organisations or community groups to take the place of *khureelel* and the provision of basic social services, such as child care, at many of these ninja settlements would go far towards alleviating women’s workloads. Not one of the ninja women we interviewed knew of any women’s groups in their respective mining communities, the lack of which is not surprising in the itinerant, chaotic and often unfriendly context of a ninja mining settlement.

● Separation from Children

“It is hard to leave my children and be separated from my family. I don’t know what is happening with them back home. I can take the smaller children with me to the ninja mining site, but the older ones need to stay in the city and attend school.”

– Female Ninja Miner, Omnogov Province

Many of the women interviewed voiced their concern about having to leave their children behind in order to become ninja miners and earn the money needed to support them. Female ninja miners that work year round, rather than seasonally, often send their children to live in school-affiliated dormitories during the academic year in their towns and cities of origin. In the summers, their children come to stay with them at the ninja settlements.⁹³

⁸⁸ Asian Development Bank and World Bank, Country Gender Assessment: Mongolia (2005) 13. Note: Data is from the Labour Force Survey with Child Activities Module for 2002-2003, carried out by the National Statistics Office of the Government of Mongolia.

⁸⁹ Id.

⁹⁰ ILO/IPEC, Baseline Survey on Child and Adult Workers in Informal Gold and Fluorspar Mining (2006) 98.

⁹¹ ILO, Informal Gold Mining in Mongolia: A Baseline Survey Report Covering Bornuur and Zaamar Soums, Tuv Aimag (2006) 38.

⁹² Asian Development Bank and World Bank, Country Gender Assessment: Mongolia (2005) 13.

⁹³ See, for e.g., Interview, Ovorkhangai Province, July 19, 2006.

Alternatively, some women leave their children with their parents or extended family and only see them when they return home to visit. Still others are local ninja miners. While these women and their husbands do not have to travel far to the mining site and are able to return home every few days, they must still leave their children at home while mining, typically in the care of their eldest child.⁹⁴ Again, community groups and social services such as child care and educational facilities at the mining site would provide critical support for these women and families, allowing for the possibility of more frequent family reunification while alleviating concerns about safety and child care.

The following account from a ninja miner in Overkhangai Province, illustrates some of the difficult choices women face in having to balance economic necessity, the desire to be reunited with their children and competing considerations concerning child welfare:

“My husband is constantly drunk and violent. He does not work and I was forced into ninja mining to support my family. I have been ninja mining in different places for ten years and return home with money, clothing and food as often as I can – typically every ten days to two weeks, depending on the cost of transportation. My husband beats me whenever I am home. While I am away I worry constantly about my two daughters, home alone with my abusive and irresponsible husband. I will not bring my daughters to the mining site with me – it is too dangerous for them. I have no choice but to continue ninja mining in order to support my children and pay for their education.”

– Female Ninja Miner, Ovorkhangai Province

B. Service Ninjas

“Service ninjas” are individuals that live at ninja mining sites and work in the services sector, rather than, or in addition to, engaging in mining. Ninja mining settlements, particularly the larger ones, will typically have a number of restaurant and shop *gers* that provide food and basic goods to the settlement population. These businesses are run almost entirely by women. Women will also own entertainment-related businesses, such as billiard tables or karaoke, and act as gold resellers, buying gold from ninjas and reselling to buyers from Ulaanbaatar or other cities at a profit.

Shared Challenges: Ninja Miners and Service Ninjas

Living within the ninja mining site, female service ninjas face many of the same health and security issues as female ninja miners: poor sanitation, contaminated water supplies, limited access to health services, alcohol-related security concerns and long periods of separation from their children. For those that run restaurant *gers*, water and sanitation challenges are further magnified due to the nature of their work. Although service ninjas are spared some of the hazards of working in the mining sector, they must still navigate the deep holes and water-filled craters of the mining site on a daily basis. This has led to injuries for some: one shop owner we spoke to had recently sprained her ankle after falling into a hole while walking home at night.⁹⁵

⁹⁴ Interview, Dornod Province, June 16, 2006.

⁹⁵ Interview, July 19, 2006, Ovorkhangai Province.

Shop Ger Owners and Alcohol Sales

An issue unique to women running shop *gers* concerns the sale of alcohol. While alcohol sales are the source of security concerns and violence against women, they are also the most profitable business at mining sites – and in urban settlements generally, according to Mongolia’s recent Participatory Living Standards Assessment.⁹⁶ Without alcohol sales, many women worry that their businesses would not be profitable and they would no longer be able to make ends meet.

“I always feel threatened by the drunks here and in the summer time a lot more men come here to mine and they’re all drunk. Now that I’ve been here a while people know me and I feel more confident in telling the drunks to go away. It is still hard to protect my children – there are drunk people everywhere. But if I don’t continue to sell alcohol, it is difficult to make a profit.”

– Shop *ger* owner, Ovorkhangai Province

At the ninja mining site near Uyanga *soum* in Ovorkhangai Province, the sale of alcohol has recently been made illegal. Police forces conduct raids every ten days, confiscating any alcohol they find in shop *gers*. In response, many shop *ger* owners will hide their alcohol in the mining holes to avoid police detection; others protest the confiscation and become embroiled in verbal and sometimes physical fights with police officers. Despite the constant anxiety and potential financial losses these near weekly raids represent, these women remain undeterred: “No matter how many times the police come and confiscate my alcohol supply, I will always buy more the next day because that is how I make the most profit.”⁹⁷

Thus, ironically, while alcohol sales may place female shop owners at greater risk of violence and contribute to their feelings of insecurity and fear, these women simply cannot afford not to sell alcohol to ninja miners. In light of this tension, it is critical that any efforts to limit or stop alcohol consumption in ninja mining communities involve shop *ger* owners. Without their cooperation and the provision of assistance to help them diversify their sources of revenue, such efforts will likely fail – to the detriment of all women living in and around these ninja mining settlements.

Ninja Miners and Service Ninjas: Putting These Challenges in Context

In devising strategies to address the challenges faced by female ninja miners and service ninjas, it is important to understand the socioeconomic context that has forced these women into ninja mining or service provision. It is also critical to understand what motivates these women to continue to mine and run mining-related businesses, despite the dangers to their health, quality of life and well-being.

⁹⁶ UNICEF, Children and Women in Mongolia: Situation Analysis Report – 2000 (2000) 22, footnote 41.

⁹⁷ Interview, July 19, 2006, Ovorkhangai Province.

Socio-economic Context

Unemployment in Mongolia is high and the economic transition has put an end to social welfare entitlements for all but the most vulnerable and poverty stricken. User fees have been introduced for health care and education; social services such as childcare and kindergartens have been virtually eliminated. Pensions, earned through decades of hard work, are failing to cover the cost of living. Three consecutive years of particularly harsh winters (*zuds*) and, in the south, drought-stricken summers, have left thousands of livestock dead and numerous herders unable to make ends meet. High unemployment, the increased cost of living and the lack of viable alternatives have driven many into the informal sector. Informal gold mining is particularly attractive because, if done successfully, it offers by far the highest returns on investment of time and labour. In addition, service provision at remote, semi-urban informal gold mining sites is often more lucrative than in other urban centres as there is a captive and willing market – particularly for alcohol – and many consumers have a considerable amount of excess cash flow from gold sales to spend. Further, there is often little financial risk and few sunk costs involved in *ninja* mining or service provision. It is relatively easy to temporarily “set up shop” at a *ninja* mining settlement and to return home whenever one has earned enough – or had enough. Many of the *ninja* women we spoke with had made the decision to come and try mining for a few days; if they were unsuccessful they would simply turn around and go home.

Further, few viable income-generating alternatives exist. Entrepreneurial initiatives, such as starting a small business backed by microcredit or loans, offer relatively small returns, no guarantees of success and have formidable barriers to entry. Women entrepreneurs in particular are at a disadvantage. Women in Mongolia often have poor access to credit due to “the disparity in formal asset ownership by males and females [which has denied women access to collateral], lack of sufficient “women-friendly” loan schemes and insufficient knowledge about them.”⁹⁸ Social factors, such as the elimination of childcare services, have also been found to limit women’s ability to successfully operate small businesses.⁹⁹

Thus, *ninja* mining and *ninja* service provision offers many women the opportunity to earn a considerable amount of money in a potentially short period of time. Many of the women we spoke to were reluctant to even complain about their working or living conditions, saying they knew what they would be getting into and that it was worth it as it offered them a rare opportunity to generate income and support their families.

Motivation: “[W]e are working for our children.”¹⁰⁰

The overwhelming majority of female *ninja* miners we interviewed (89%) said the reason they had become *ninja* miners was to support their children and pay for their children’s education. Many of these women (58%) were *ninja* mining solely to earn enough money to cover their children’s or sibling’s university fees, or were university students themselves, mining to cover their education costs. Other women were *ninja* mining to pay their own or

⁹⁸ UNIFEM, *Women in Mongolia: Mapping Progress Under Transition* (2001) 45.

⁹⁹ Asian Development Bank and World Bank, *Country Gender Assessment: Mongolia* (2005) 26.

¹⁰⁰ *Ninja Gold Miners of Mongolia* 209.

their relative's hospital bills and health care costs. Pensioners were mining to supplement their insufficient retirement income and help support their children and grandchildren. Former herders, forced to temporarily abandon their way of life, were trying to support their families and save enough to purchase new livestock and return to their herder lifestyle. Service ninjas reported similar motivations.

“It is hard to be getting older and to realise that the government pension is not sufficient. We need to earn extra money to support ourselves and our children. There is no government aid. I can't go to the doctor because they demand high fees and I need to save the money I have to pay for family expenses, education fees and food. I do not have enough money to spend on my health.”

– Female Ninja Miner, Omnogov Province

In sum, the driving force motivating most of these ninja women is their family's, and their own, well being and future. For that reason they will continue to mine and act as service providers despite the risk of mercury exposure, fatal accidents, contaminated water, poor sanitation, unhealthy working conditions and community and domestic violence.

Conclusions

The socioeconomic context and personal motivations just discussed make clear that simply putting an end to ninja mining is neither a sustainable nor desirable solution. Doing so will deprive women (and men) of much-needed income and leave both service ninjas and ninja miners worse off than before. A more durable and universally beneficial solution would be to create a comprehensive legal framework governing the informal mining sector so that it may be regulated and rendered a legitimate and far less hazardous undertaking. Police stations and health centres, for example, should become a fixture at ninja settlements. Further, educational initiatives concerning health, occupational safety and domestic violence must be carried out and the sale of alcohol must be strictly regulated and monitored.¹⁰¹

C. Commercial Sex Workers

Due in part to the socioeconomic context mentioned in the preceding section, the number of female commercial sex workers (CSWs) in Mongolia has been increasing over the past few years, with a growing number of younger women engaging in such work.¹⁰² Although personal interviews with female CSWs proved impossible to obtain, it is clear from interviews with male and female residents of all three ninja settlements we visited that CSWs can be found in most ninja mining communities.

From what we could gather from second-hand interviews and conversations, the CSWs that work at ninja mining settlements are primarily women that migrated with the intent to engage in sex work, although there are some women who initially came to try their hand at

¹⁰¹ For a more comprehensive list of recommendations, see the concluding section of this report.

¹⁰² Asian Development Bank and World Bank, Country Gender Assessment: Mongolia (2005) 40. See also WHO, Scaling Up Towards Universal Access to HIV/AIDS Prevention, Treatment, Care and Support: Country Report Mongolia (2006) 4.

ninja mining, were unsuccessful, and turned to CSW to make money. Some CSWs travel all the way from Ulaanbaatar to work at fairly remote ninja sites. At the former ninja mining site in Dornod Province, a 14-hour drive from the capital, we were told that a number of university students used to come there to work as CSWs during the summer in order to pay their university fees for the coming year. At the ninja mining site near Uyanga *soum*, the general consensus among ninja miners was that mine employees from large-scale mining companies are the ones that pay for the services of CSWs because, unlike male ninja miners, they are not there with their families. Although this may be true, it was also apparent that many of the younger male ninja miners frequented CSWs as well. Similarly, in Omnogov Province, although women were reluctant to discuss the subject of CSWs, they did say that the formal mine employees “pay for sex.”¹⁰³

CSWs face many of the same problems as ninja miners: poor sanitation, contaminated water supplies, limited access to health care and alcohol-related security concerns. Further, the illegal nature of their work makes them vulnerable to police detection and abuse. Of particular concern, however, is CSWs’ increased susceptibility to STIs, violence and trafficking.

Sexually Transmitted Infections (STIs)

A major concern for CSWs is exposure to STIs and the potential for HIV infection. As mentioned previously, STI rates in Mongolia are high, condom use is limited and awareness of prevention methods and knowledge about STIs/HIV – particularly among young girls – is minimal. This last fact is particularly disconcerting, as statistics show that CSWs in Mongolia are increasingly young girls and women.¹⁰⁴ Further, rates of condom use among CSWs appear to be even lower than that of the general female population: they are said to be as low as 7% among sex workers in Ulaanbaatar.¹⁰⁵

The lack of access to health services and, in smaller ninja camps without shop *gers*, contraceptives, presents serious obstacles to ensuring CSWs are protected from the spread of STIs. In order to promote and protect the health of these CSWs, prevent the spread of STIs among the general population and avoid the potential for an HIV/AIDS epidemic, public health interventions are urgently needed. Education campaigns targeting formal and informal miners as well as CSWs themselves, the provision of free condoms in mining communities, improved access to health services and, some suggest, the legalisation of CSW, are essential steps towards addressing this problem.

Violence against Women

CSWs are particularly vulnerable to the threat of violence. A recent survey of 124 female sex workers throughout Mongolia revealed that 28% had experienced incidents of coercion and threats of violence.¹⁰⁶ According to the World Report on Violence and Health, “sex workers are at high risk for both physical and sexual violence,

¹⁰³ Focus Group Interview, Omnogov Province, June 3, 2006.

¹⁰⁴ Asian Development Bank and World Bank, Country Gender Assessment: Mongolia (2005) 40. See also WHO, Scaling Up Towards Universal Access to HIV/AIDS Prevention, Treatment, Care and Support: Country Report Mongolia (2006) 4.

¹⁰⁵ WHO, Scaling Up Towards Universal Access to HIV/AIDS Prevention, Treatment, Care and Support: Country Report Mongolia (2006) 4.

¹⁰⁶ CHRD, Combating Human Trafficking in Mongolia: Issues and Opportunities (2005) 37.

particularly where sex work is illegal.¹⁰⁷ In a context such as informal mining, where excessive alcohol use is common, the potential for violence is even greater.

The illegal nature of their work and the stigma that often accompanies it will lead most sex workers to quietly endure such violence. As with domestic violence in Mongolia, women will rarely come forward to report such assaults and these violations will frequently go unpunished. Education campaigns informing CSWs of their rights and abusers of the illegality of their actions, counseling initiatives for victims of violence, the establishment of police stations in mining communities to impose the rule of law and, ultimately, the legalisation of CSW, will all assist in putting an end to such violent and abusive conduct.

Trafficking

Research has shown that those most at risk of being trafficked in Mongolia are young, single women with relatively weak family support.¹⁰⁸ Not surprisingly, women engaged in sex work were found to be in a particularly high-risk category for trafficking.¹⁰⁹ It is imperative that trafficking awareness-raising campaigns target CSWs at mining sites and that Mongolia clarifies its Criminal Code so as to unambiguously render trafficking a crime under the law. For a more comprehensive analysis of the key legislative and policy initiatives required to address the issue of trafficking, see the report by CHRD entitled *Combating Human Trafficking in Mongolia: Issues and Opportunities*.¹¹⁰

D. Herder Women

Arguably, it is the herder population of Mongolia that bears the brunt of the ill effects of mining, while reaping hardly any of the benefits that accompany it.¹¹¹ Herder families maintain a semi-nomadic lifestyle, raising sheep, goats, horses, camels and cattle on the vast pasturelands of Mongolia. The influx of mining companies and ninja miners into rural areas in recent years has had serious implications for their quality of life and has, tragically, threatened their very way of life.

Herder women's mining-related concerns echo many of those voiced by female ninja miners: health effects and security threats were widely mentioned by those we interviewed. The environmental effects of mining, however, were the most significant issue for most. This, combined with forced displacement, a lack of access to information and limited participation in decision making, has left many herder women feeling resentful of the mining industry's intrusion into their lives and anxious about their future.

Environmental Damage

Gold mining has led to the contamination of water sources, depletion of ground and surface water and destruction of viable pastureland throughout Mongolia. Women, as mentioned previously, are particularly affected by the contamination and depletion of

¹⁰⁷ Krug EG et al., eds, *World Report on Violence and Health*, Geneva, World Health Organisation (2002) 155.

¹⁰⁸ CHRD, *Combating Human Trafficking in Mongolia: Issues and Opportunities* (2005) 33.

¹⁰⁹ *Id.*

¹¹⁰ CHRD, *Combating Human Trafficking in Mongolia: Issues and Opportunities* (2005).

¹¹¹ CHRD, *Discussion Paper for National Dialogue on Mining and Human Rights in Mongolia* (2006) 5.

water sources as they are the “primary users of water for household consumption ... are responsible for managing family sanitation standards” and will “have the added burden of managing scarce resources.”¹¹² For example, due to water contamination, women in Dornod Province reported having to travel farther upstream, past the mining company’s operations, in order to get clean water for household consumption.¹¹³ This represents a greater burden on herder women’s time and energy and increases their daily workload. Further, it is not clear that such water is even free from contamination.¹¹⁴

In addition, as will be discussed below, this environmental damage has other serious consequences for female herders and their families, regarding their health and ability to preserve their culture and way of life. The health dangers and increased workload that result from environmental degradation suggest the need for educational initiatives to inform herders about the extent of contamination near mining sites. Further, greater herder participation in mining-related decision-making processes, particularly those concerning the granting of government mining licenses, is imperative. Local herder populations should be consulted prior to these licensing decisions and their concerns should be reflected in the licensing process. The government must set appropriate standards, applicable to all mining contracts, which require companies and individuals to minimise environmental damage and to carry out environmental rehabilitation upon the completion of their mining activities. Strong government enforcement mechanisms are particularly critical: companies must be made to abide by contract provisions that demand the minimisation of environmental damage.

Health

The mercury pollution of rivers and streams near formal and informal mining sites affects the health of herder women and their families. Many herder women in Dornod Province complained that their children would get painful rashes from swimming and bathing in nearby water courses.

“My two children used to swim and bathe in the Turgin River during the summers, but last year after swimming in the river they both got painful, red, itchy bumps on their skin as a result and now they are too afraid to do so anymore. We only use well water for bathing now. These symptoms are very upsetting and I worry about mercury contamination for my children’s sake and, if I become pregnant again, for my future child’s health and safety.”

– Female Herder, Dornod Province

Access to health services for many of these herder families is limited and thus addressing health problems is difficult. Herders must travel to the nearest *soum* centre for treatment, which typically entails a few hours ride on horseback and deters many from seeking health assistance for what they consider to be minor health problems. Not one of the women we spoke to in Dornod had sought medical attention on behalf of their children for their rashes.

¹¹² Asian Development Bank and World Bank, Country Gender Assessment: Mongolia (2005) 33.

¹¹³ Focus Group Discussion, Dornod Province, June 16, 2006.

¹¹⁴ See *supra* page 8 and footnote 46.

Access to health services is becoming an increasingly critical issue for herder women and their families. The environmental destruction that has accompanied mining has forced more and more herder families to move away from their traditional camping sites and into more remote, rural areas that have yet to be affected by mining. This renders health and other social services even more inaccessible. Women are often disproportionately burdened by such developments, as they are responsible for ensuring the health and well-being of their family, old and young. It is thus the women that will have to more frequently navigate even greater distances to obtain basic health care or emergency services.

In addition, high maternal mortality rates in Mongolia are the result of poor access to health services, particularly in remote, rural areas. Herder women are thus placed at greater risk of dying during childbirth because of their forced displacement by mining activities.

Maternal Health Care

In Dornod Province, due to equipment and staff limitations at the *soum* centre level, a new rule has been instituted that women must travel to the aimag centre, a full 200km away, to give birth, as the *soum* centre can no longer guarantee a safe delivery. While the *aimag* health centre provides better care, women are expected to pay for travel, accommodation and living expenses on their own, resulting in a serious financial challenge for most of them. This new rule has rendered health services both financially and physically less accessible to women in rural areas and left many herder women in a very difficult position. Mining displacement simply adds to these difficulties.

Finally, many herder families that live near mining sites will try their hand at *ninja* mining part-time in order to supplement their incomes. As discussed above, women are typically responsible for the mercury amalgamation process, while having little understanding of its dangerous health effects. Thus, it is imperative that mercury education initiatives and the introduction of mercury recycling technologies target herder women living near the mining sites in addition to female *ninja* miners.

Displacement and Threat to Way of Life

Gold mining in Mongolia has made it increasingly difficult for herders to sustain their way of life. Both formal and informal mining activities encroach on pastureland used by herders and the all-too-common failure of mining companies to rehabilitate the land once they have ceased mining often makes resumed use of the land for grazing infeasible. In addition, the diversion and extraction of key water sources by gold miners reduces the amount of water available to herders and their livestock; the pollution of these depleted rivers, streams and lakes leads to illness.

Many female herders told stories of livestock becoming ill and dying from the effects of mercury and cyanide pollution in the soil and water.¹¹⁵ Others recounted tales of animals

¹¹⁵ See, for e.g., Interviews, Omnogov Province, July 3, 2006.

wandering into ninja mining areas, falling into the manmade holes and craters, and dying.¹¹⁶ Ninja miners have also been known to steal goats and sheep from herders, further depleting their livestock.¹¹⁷

In addition, herders lack any formal title to their land, “as their traditional land use rights have not been codified into written law.”¹¹⁸ They therefore have little legal recourse when pushed off their lands by mining activities. By relying on social custom, rather than codified law, to maintain their grazing rights, herders are greatly disadvantaged when faced with the legal authority of mining companies or the extra-legal activities of ninja miners.¹¹⁹ Herders are thus unable to assert their rights or obtain just compensation for land they have been using for generations.

All of these factors, combined with “widespread desertification [and] very low precipitation” in Mongolia over the past few years, have resulted in a serious threat to herder culture and lifestyle.¹²⁰ As one female herder in the Gobi desert explained: “Because of mining and the lack of rain, we have less and less land where our animals can graze and we can survive.”¹²¹

“There are very few herders left. Once there were a lot in the area, but when the ninja miners came and started digging the land, many of them moved away.”

– Former Herder Woman, Ovorkhangai Province

With few income-generating opportunities in rural areas, herder families that can no longer make ends meet are forced to migrate to urban centres or become ninja miners or shop *ger* owners themselves. Women and their daughters feel the pressure to migrate most acutely, as they are typically “the first in a family to seek employment in *aimag* and *soum* centres.”¹²²

Many herder women expressed anxiety about their uncertain futures. In Dornod Province, for example, the thought of relocation was very difficult for women to contemplate and made them tense and nervous, yet they recognised that water supplies were fast diminishing and action would have to be taken soon.¹²³ In Omnogov Province, one herder woman’s family had been repeatedly requested by a mining company to leave their traditional camping area, in order that the company could continue and expand its operations. The family has thus far resisted, arguing that it is their land and it has been in their family for generations: “It is a good place to live and our livestock, camp and water supply are all there. Where would we go?”¹²⁴

¹¹⁶ Interview, Ovorkhangai Province, July 19, 2006.

¹¹⁷ Interview, Ovorkhangai Province, July 19, 2006.

¹¹⁸ Ninja Gold Miners of Mongolia 176.

¹¹⁹ Id.

¹²⁰ Ninja Gold Miners of Mongolia 190.

¹²¹ Interview, Omnogov Province, July 5, 2006.

¹²² Asian Development Bank and World Bank, Country Gender Assessment: Mongolia (2005) 15.

¹²³ Focus Group, Dornod Province, June 16, 2006.

¹²⁴ Interview, Omnogov Province, July 3, 2006.

Ultimately, to address these violations of herders' rights it is crucial that both male and female herders are consulted in decision-making processes that allocate land to mining companies and that they are informed of any pending or ongoing developments concerning mineral exploitation on or near their land. It is clear from our interviews that herder families, and herder women in particular, have little access to political decision-making processes and minimal understanding of their rights under the law. Educational initiatives informing herders of their rights and duties under the law are imperative in order that they are better equipped to assert themselves in contexts where the power and information balance is clearly skewed in favour of the mining companies and government actors.

Security Concerns

Herder women living near ninja settlements expressed security concerns similar to that of female ninja miners. They complained that ninja men were often drunk and would sometimes come to their *gers* and harass them late at night. They found such behaviour disturbing and, particularly for female heads of households, quite threatening.

Women were also concerned about their children's safety and did not like their children to wander near the ninja mining areas. They felt that the ninja settlements were dangerous, both because of the high levels of alcohol use among the ninjas and the potential for injury from falling into a hole or crater.

As for the formal mine employees, most herder women claimed to have very little interaction with them except to sell them meat or dairy products when they so requested. They did not seem to feel threatened or harassed by these men.

Influence of Alcohol

One woman expressed her concern that the ninja miners' behaviour was influencing young herders, causing them to drink alcohol more often and in greater quantities.¹²⁵ This is obviously not a welcome development and could potentially lead to higher rates of domestic violence against herder women, lower productivity among male herders and a decrease in family-allocated income, as part of this income will be diverted to purchase alcohol. These developments would place herder families at greater risk of sinking into poverty.

Final Note

Although mining activities have clearly had negative implications for herder women and their families, it is important to note that they have derived some benefits from them as well. Many herder women are able to sell dairy products and meat to both formal and informal miners, providing them with an independent source of income to help support their families. In addition, mining-related activities such as ninja mining, running shop *gers* and reselling gold offer many herder families the opportunity to earn money, when herding alone cannot make ends meet. These activities provide herders with the chance to regroup after losses from harsh winters or the lack of rain; with the money saved from mining activities, they can purchase new livestock and return to their herder lifestyle.

¹²⁵ Interview, Omnogov Province, July 3, 2006.

In sum, effective regulation of informal mining and monitoring of formal mining so that herders' environmental, cultural, participatory and health rights are protected will go a long way towards improving herders' quality of life, while also maintaining the benefits they derive from mining activities.

E. Female Employees in the Formal Mining Sector Service Sector

Many women work as cooks, cleaners, brick-makers, or tend livestock and vegetable patches for formal mining companies. We spoke to a number of these women over the course of our fieldwork. The women we interviewed work at three different mining companies, each located in different provinces in Mongolia.

The women working at the two smaller mining companies, located in Dornod and Ovorkhangai Provinces, seemed content in their jobs and had no complaints of poor treatment or discrimination. In Ovorkhangai, the woman we spoke with was the only female employee at the company and was given her own ger to live in, separate from the other male employees. Her salary was higher than what she had been receiving at her former job as a cook in Ulaanbaatar and, because the company covered most of her living expenses, she was able to save much of what she earned. The women in Dornod were relatives of the mine supervisor and were quite happy with their working and living conditions. They said the mine supervisors had taken care of their families for over ten years. Some of them had been provided with housing or cars and all were grateful for the extra income their employment provided.

The women working at Mongolgarzar, the much larger mining company located in Omnogov Province, were not nearly as content. They complained of disrespectful treatment and harassment from the male mine workers and security guards, being unreasonably overworked by their supervisors and enduring forced separations from their children and families. They alleged that the male workers called them "local Indians," a derogatory phrase, and were arrogant – sometimes subjecting them to humiliating experiences.¹²⁶

The women's primary complaint about working at Mongolgarzar was that the company required them to live at the mine and charged them a daily fee to allow their children or husbands to stay with them. They were being charged 1,500 tugrik for a child under twelve, 3,000 tugrik if they were over twelve and 5,000 tugrik for their husband to stay with them.

They earned only 80,000 - 90,000 tugrik per month, so these daily fees were impossible to maintain. It was very difficult for them, they said, to not be able to see their families.

The women were so upset with the treatment they had received at the mine that they wondered if it was possible to close down the mining company operations

¹²⁶ For example, one female employee told of her recent efforts to leave the mining site in order to go see a doctor. The mine security guard refused to let her pass, forcing her to open her mouth so he could look inside and otherwise inspecting her so see if she was "really sick." She felt incredibly humiliated by this treatment. Interview, Omnogov Province, July 3, 2006

entirely.¹²⁷ Significantly, they desired this despite the fact that the mine provides them with essential income – income that cannot be easily replaced, if at all, by alternative income-generating activities. This illustrates the urgent need to ensure that mining companies respect female employees’ rights and implement gender-sensitive policies that ensure non-discrimination. For example, mining companies should be held responsible for enforcing a strict code of conduct for male employees to address harassment concerns and for enacting family friendly policies, such as providing workers with family housing at the mine site or transportation to and from workers’ homes for those that live relatively nearby.

Mining Sector Professionals

Women are employed as engineers, lab technicians and geologists at both domestic and foreign mining companies in Mongolia. They face a number of challenges working in this sector, from employment discrimination to sexual harassment.

• Employment Discrimination

Women in Mongolia comprise over 50% of university graduates in geology, yet constitute only 10% of mine employees in many mining companies. Employer discrimination accounts for much of this discrepancy. Professor Gerel, the Head of the Geology Department at the Mongolian University of Science and Technology (MUST), has received many requests from mining companies for student hiring recommendations. She notes that “while such discrimination is hardly ever made explicit, it is clear that Mongolian companies prefer male employees.”¹²⁸ Foreign companies, on the other hand, do not seem to discriminate against women in their hiring practices.¹²⁹

Professor Gerel attributes this discrimination both to the nature of such work and to pregnancy and childrearing attitudes on the part of mining companies. Working for a large mining company entails spending six months of every year in the field, away from family and home. From the perspective of Mongolian mining companies, men are more willing and better able to do this type of work than women, as they do not have the same family and childcare responsibilities. Further, mining companies see hiring young women as a poor investment as they assume they will soon want to start a family and need to take maternity leave.

Such gender bias and pregnancy discrimination is made worse by the fact that “salary levels are higher in sectors like mining ... where men predominate than they are in sectors like health and education where the workforce is mostly female.”¹³⁰ Discriminatory hiring policies in the mining sector thus contribute to the “persistent wage gap between men and women” in Mongolia.¹³¹

¹²⁷ Interviews, Omnogov Province, July 3, 2006.

¹²⁸ Interview with Professor Gerel, July 27, 2006.

¹²⁹ Id.

¹³⁰ Asian Development Bank and World Bank, Country Gender Assessment: Mongolia (2005) 20.

¹³¹ Id.

● **Other Challenges: Living and Working Conditions, Sexual Harassment**

A further consequence of these discriminatory policies is that women who have managed to find jobs in the mining sector feel fortunate to have done so and are thus reluctant to complain about any challenges they might face during employment.¹³²

I feel lucky to have been hired by Mongolغاز and am happy to be employed here. As a woman, you cannot get this type of work in other places in Mongolia.

– Female Mine Employee, Mongolغاز Mining Company

At Mongolغاز, for example, living conditions are quite poor. Privacy is limited, with one room often housing up to five men or women. Working conditions are difficult, involving heavy labour, exposure to chemicals and high temperatures. One female employee we spoke with had recently miscarried; the doctor told her that her hard working conditions might have been responsible. Yet none of the women interviewed dared complain, instead justifying the poor conditions by explaining that “the factory is relatively new and has not expanded to accommodate all the staff as of yet.”¹³³

Sexual harassment is also likely an issue at many mines. In Mongolia, “the scarcity of jobs creates an overall environment conducive to harassment because it discourages women from reporting it or actively struggling against it. ... [W]omen are reluctant to complain as they assume these are conditions they must tolerate.”¹³⁴ In keeping with this analysis, the female professional mine employees interviewed told us that there was no sexual harassment at the mine, yet interviews with female service sector employees at the same company suggested otherwise.

● **Conclusions**

Recognising the need to address these issues, Professor Gerel has recently established a Women’s Geosciences Association on the basis of a proposal from a gender study workshop she convened in 2006. The primary goal of the organisation is to ensure that women find employment upon graduation, but they also aim to collect data on the extent of gender discrimination, sexual harassment and salary discrepancies in the field, as no official studies have been done on these issues to date. Further, the organisation will serve to mentor, encourage and support women who are interested in exploring the field of geology. Finally, Professor Gerel would like to see this organisation encourage women to run for Parliament, so that female geologists are able to have their voices heard in the political process. This is certainly a critical step towards ensuring a change for the better for women in the mining sector.

In addition, education campaigns concerning Mongolia’s anti-discrimination legislation should be conducted to remedy the current limited awareness of the law amongst both employers and employees in Mongolia.¹³⁵ Similar sexual harassment information initiatives are also vital to prevent such harassment from happening with impunity.

¹³² Interviews, Omnogov Province, July 4, 2006.

¹³³ Interviews, Omnogov Province, July 4, 2006.

¹³⁴ Asian Development Bank and World Bank, Country Gender Assessment: Mongolia (2005) 46.

¹³⁵ Asian Development Bank and World Bank, Country Gender Assessment: Mongolia (2005) 22.

Mining companies should have processes in place where women can confidentially and comfortably report any incidents of sexual harassment. The ability to stand up at a weekly meeting comprised of all mine employees and publicly lodge a sexual harassment complaint, as provided by one mine's policy, is a grossly insufficient interpretation of this process.¹³⁶

Lastly, to address gender and pregnancy discrimination, mining companies need to ensure that family friendly policies are in place for the benefit of their staff. Childcare or educational facilities should be provided on mining premises, along with family housing options, to allow families to stay together and to provide women with equal opportunity employment. Should this prove too difficult, mining companies can enact policies in which employees spend one month in the field and one month home, as opposed to six consecutive months at the mine. This is the policy approach Mongolغاز has taken and it allows women to see their families more often and makes fieldwork less taxing.

IV. CONCLUSIONS

The mining industry in Mongolia has presented both challenges and opportunities for women throughout the country. Legislative, policy and advocacy initiatives must therefore work to address the challenges, while making sure to preserve the opportunities, afforded to ninja miners, service ninjas, CSWs, herder women and mining company employees.

To this end, it is important to keep in mind the socioeconomic factors that drive these women and that often cause them to perpetuate or tolerate the challenges they face. Addressing high unemployment, the lack of income-generating opportunities, and the increased cost of health, education and living expenses, will go a long way towards alleviating many of these women's burdens. The subsidisation or elimination of university tuition fees alone will likely have a major impact on women's decisions to work and live in ninja mining settlements.

The most critical step in addressing the needs of nearly all the women discussed in this report is the creation of a legal framework to regulate informal mining. Once this has occurred, those affected will be in a position to assert their rights, whether against mining companies, ninja miners or government actors. Further, the government will be under legal obligation to act to protect and promote those rights. However, this also requires that women's voices are heard and their concerns prioritised.

In this respect, women's poor representation in political and decision-making processes, at both the national and local level, is by far their biggest challenge. The political process in Mongolia is still highly centralised and decisions are typically made in the capital. Yet, as of 2004, only 7% of Parliament members are women.¹³⁷ It is imperative that women become politically empowered so they can work to prioritise and implement policy and legislative initiatives that address women's mining-related needs and concerns.

¹³⁶ See Interview with Mine Director/Supervisor, Omnogov Province, July 4, 2006.

¹³⁷ Asian Development Bank and World Bank, Country Gender Assessment: Mongolia (2005) 50.

Interviews and conversations with women in the field demonstrated a profound lack of women's organisations in rural areas throughout the country and a sense of complacency and powerlessness among women when it comes to government activities. Women need to be encouraged to participate in the political process and to organise to form women's organisations, whether at ninja settlements or amongst female geosciences professionals, herders or CSWs, so they can discuss their concerns and act in concert to address them.

V. SUMMARY OF RECOMMENDATIONS

Female Ninja Miners

1. Introduce mercury education into the national secondary school curriculum.¹³⁸
2. Target women in the introduction of mercury recycling technologies, such as a retort, that will reduce the amount of mercury released into the environment.¹³⁹
3. Target women in education and awareness-raising campaigns in the informal mining sector concerning minimal safety precautions and labour protection standards.
4. Raise awareness among women of which water sources are clean versus contaminated.
5. Target women in the introduction of basic water purification technologies or processes.
6. Lobby for a legal and regulatory framework for informal mining to ensure that government initiatives concerning the provision of sanitation and water services in urban areas include ninja mining settlements in their action plans.
7. Lobby the government to change local registration rules.
8. Lobby for the placement of health centres or medical units inside ninja mining settlements. Offer shelter and counseling at these centres for victims of violence.
9. Target women and girls in sexual and reproductive health education campaigns, particularly at the secondary school level.
10. Provide free condoms at ninja mining sites, rather than just at *soum* health centres.
11. Limit alcohol sales or ration alcohol consumption among ninja miners at mining settlements.
12. Ensure ninja mining settlements have police forces or patrols that can enforce alcohol regulations and ensure the rule of law is maintained in accordance with national standards.
13. Improve awareness and implementation of the 2004 Domestic Violence Bill.
14. Ensure a legal framework governing informal mining is in place so that ninja miners are able to assert their rights against mining company guards and local officials who threaten or attempt to intimidate them.
15. Encourage the creation of women's groups or community organisations at ninja settlements to help women share the burden of an increased workload and allow women to support each other in negotiating the challenges of their daily lives. This will give women a forum with which to ensure their voices are heard, both within their communities and with respect to the political process at the local and national levels.

¹³⁸ A Peace Corps worker recently devised such a curriculum and implemented it in the northeast of Mongolia. Further research and follow up on this initiative is needed to determine whether it was successful and, if so, whether the curriculum could potentially be scaled up and introduced nationwide.

¹³⁹ See the current work being done by the Support for Artisanal Mining (SAM) project, a Swiss initiative, at: <http://www.sam.mn/index.php?mblang=0&mbcont=0>.

Service Ninjas

1. The above recommendations for ninja miners largely apply to service ninjas as well.
2. Involve and target female shop *ger* owners in the creation and implementation of any alcohol regulation plans.
3. Help service ninjas involved in the sale of alcohol to diversify their revenue sources and give them incentives to comply with any alcohol regulation scheme.
4. Improve women's access to microcredit or loans and ensure "women friendly" loan schemes are in place. See, for example, the work done by Moncord, a women's microfinance cooperative.¹⁴⁰

Commercial Sex Workers

1. Conduct education campaigns targeting CSWs, residents of ninja settlements and university students, about STIs/HIV and trafficking.
2. Ensure the provision of free condoms at ninja settlement sites.
3. Lobby for the placement of a health centre at the ninja mining site. Offer counseling at the centre for victims of violence.
4. Lobby for the placement of police stations at ninja settlements to assist in eliminating violence against women and provide recourse for victims. Ensure female representation among law enforcement employees.
5. Lobby for the legalisation of commercial sex work.
6. Pressure government representatives to pass and implement a law on trafficking.

Herder Women

1. Enforce environmental standards against mining companies. Ensure local environmental inspectors are closely monitoring mining companies' compliance with these basic standards.
2. Create a system in which herders' traditional land rights are acknowledged and respected so that they may assert their rights on equal footing against mining companies and ninja settlements. Provide compensation to herders who agree to be displaced from their land by mining activities.
3. Improve herders' access to health care and improve reproductive health services at the *soum* level.
4. Target herder women in mercury education efforts and the introduction of mercury recycling technologies.
5. Enforce clauses in mining contracts that require companies to rehabilitate land. Ensure that such clauses are mandatory for all mining contracts.
6. Regulate alcohol sales to prevent harassment.
7. Involve herders, herder women included, in the decision-making process and keep them informed of mining related developments on their land.
8. Conduct education campaigns informing herders of their rights and duties under the law – particularly with respect to their property rights and the new Mineral Laws.

¹⁴⁰ Asian Development Bank and World Bank, Country Gender Assessment: Mongolia (2005) 26.

Female Employees in the Formal Mining Sector

1. Educate both employers and employees about non-discrimination legislation.
2. Conduct education initiatives about sexual harassment in the workplace, informing women of their rights and others of their obligations.
3. Ensure mining companies have clear sexual harassment policies and non-discrimination policies in place, along with a strict Code of Conduct for employee behaviour to prevent harassment.
4. Monitor mining companies to ensure compliance with non-discrimination laws and employee codes of conduct - institute/publicise a model grievance scheme in which employees can report any violations of their rights.
5. Encourage and support the establishment of women's organisations, such as the Women's Geosciences Association, that aim to promote women's involvement in the mining sector and ensure equal treatment of women in this sector.
6. Lobby government and pressure mining companies to enforce and implement family friendly policies. The larger companies should provide family housing, childcare and education facilities at their site, while smaller companies should at the very least implement policies that allow regular family reunification while engaging in fieldwork, such as the one month on, one month home policy discussed above.¹⁴¹

¹⁴¹ For other corporate social responsibility (CSR) initiatives and best practices that can be adopted by mining companies in Mongolia, see UNCTAD's website on CSR and the mining sector: <http://www.natural-resources.org/minerals/csr/index.html>



Part II

Presentations at the Asia Study Session on Women and Mining

Current Trends in World Mining

Frances Quimpo¹

Executive Director of the Centre for Environmental Concerns (CEC)-Philippines

What is wrong with mining?

Mining transnational corporations (TNCs) relish a boom in the industry, in spite of the fact that this has increasingly become a serious problem to the environment and many of our peoples' survival.

Our communities and organisations are witnesses to immediate and long-term impacts of mining on the environment which include the following:

- Deforestation that affects the habitat and continued existence of hundreds of endemic and maybe endangered species, impedes the constant flow of water from the forests towards other ecosystems and urban centres, and causes rapid fluid runoff of rainwater, increasing flooding during rainy periods.
- Open pit mines and other surface impacts, and the consequent erosion and siltation of water systems that continue to worsen from the heaps of rock residues or wastes from the mining process (tailings) destroy the water source and the land of the community.
- Water depletion from enormous consumption of water by mining activities, drying up wells and springs, and depriving communities of their supply of water.
- Water contamination by acid mine drainage, that is, the drainage formed when typically highly acidic ores, like pyrites (FeSO_2) from surface mining, deep mining or coal refuse piles are exposed to air or water. A self-perpetuating acid material is generated that can go on for hundreds or even thousands of years, depending on the presence of these ores in the area. This liberates latent toxic chemicals (arsenic, mercury, cadmium and lead) in the soil, which, when they reach water bodies, can aggravate pollution and destroy almost all forms of aquatic life.
- Hazardous chemicals used in the various stages of metal processing, such as cyanide, concentrated acids and alkaline compounds cause water contamination and pose health hazards and threats to the people in the communities.
- Air pollution from dust generated by mining activities that may cause serious respiratory troubles or allergic reactions in people and asphyxia in plants and trees. The process also releases gases and toxic vapour from metal treatment, like sulphur dioxide which

¹ She is also a member of Kalikasan-People's Network for the Environment, and former member of Women & the Environment Task Force

are responsible for acid rain. Carbon dioxide and methane from burning of fossil fuels are two of the main greenhouse gases causing climate change.

- Noise pollution from the machinery used in mining and the blasting that creates conditions which become unbearable for the local population and the forest wildlife and worsens integrity of land forms.
- Depletion of forest resources as mining activities consume enormous quantities of wood for their construction, competing with local consumption.
- When carried out in remote zones, mining activities imply major work such as road building (opening access to the forests), ports, mining villages, the deviation of rivers, construction of dams and energy generating plants.²

More importantly, there are still the sufferings that our people have been enduring from TNC mining operations. As recounted by the World Rainforest Movement,³ their operations appropriate the land belonging to communities, negative impact on health, alter social relationships, destroy forms of community subsistence and life, cause social disintegration, radical and abrupt changes in regional cultures, displace other present and/or future local economic activities. We have to add the hazardous and unhealthy working conditions of workers in this type of activity. This is not to mention how mining corporations, oftentimes tolerated, if not protected, by military forces, impose their plans on communities resulting in countless cases of human rights violations.

² World Rainforest Movement. Mining: Social and Environmental Impacts. Coordinated by Ricardo Carrere, Edited by Hersilia Fonseca, www.wrm.org.uy/deforestation/mining/book.html

³ Ibid.

Table 1. Selected Cases of Big Mining Impacts on People & Environment

Country	Philippines	Peru	US	Papua New Guinea	Indonesia
Mining Company	Placer Dome – Barrick Gold (Canada)	Compania Minera del Sur	Rhone Poulenc Inc. Iron Mountain Mine	Broken Hill Pty. Ltd.	Freeport-McMoRan and Rio Tinto plc.
Affected Ecosystem	Boac and Mogpog Rivers, Calancan Bay	Yana Machi and Pilcomayo Rivers	Sacramento River Keswick Reservoir	Ok Tedi River	Grasberg Mine in Jayawijaya Mountain Glacier
Mine Tailings Pollution	200 million tons of mine tailings via surface disposal system dumped into Calancan Bay; 2-3 million tons of mine waste leaked into the 26-kilometre long Boac River.	235,000 tons of pollutants including arsenic and cyanide from tailings dam dumped in rivers.	Up to a ton of heavy metals dumped daily in nearby rivers and streams.	80 million tons of rock and toxic tailings.	Tailings, generated at a rate of 230,000 tonnes per day, are directly poured into the Aikwa riverine system and Arafura Sea
Impacts	Destroyed ricelands; poisoned rivers; Mogpog residents complain of chronic skin diseases they got from crossing the river; Calancan children chelated due to blood poisoning; displaced livelihood from farming and fishing.	Destruction of fish and other food supplies for the Mataco and Chiriguano indigenous peoples.	Water sources are now 10,000 times more acidic than battery acid; expected to leach acid for another 3,000 years.	Turtles, crocodiles and fish have been killed. Mining operations have harmed the lives of 50,000 people who live in 150 villages downstream.	Pollution rendered downstream waterways and wetlands the level of which is unsuitable for aquatic life; overburden of about 700kt/day remains in the highlands, up to 480m deep and covering 8 square kilometres (3 sq mi), but its acidic runoff, copper traces and finer materials wash out through the rivers; mine activities impact on nearby rare equatorial glacier. Company is implicated in killing of 150-800 people.

Mining is not inherently wrong. It is essential in the production of industrial and consumer goods, in agriculture, communication, transportation, and other industries that can help our impoverished people overcome their underdevelopment and improve their economic well being. They form the basis of industrial development.

What brings us together today is a common need to further understand our problems with the mining industry and find ways of strategically addressing our common issues. If mining contributes to development, how is it that in most of our countries, rich as they are in minerals and other natural resources, and for decades mined out by foreign corporations, our people remain at the subsistence level?

Such utter poverty in the context of prosperity in valuable minerals has led some experts to expose a phenomenon called a “resource curse”. Analytical studies have shown that countries rich in natural resources tend to fail in resolving poverty issues and have slow economic growth, as compared to those which are not as naturally endowed.⁴

Yet, we have seen mineral-rich countries like Australia, Canada, the United States and New Zealand rise, develop, and industrialise from backwardness and reaping the benefits of their resources. Why then do our countries, perhaps richer in natural endowments, hardly get near to where the developed countries have gone? Where does the problem lie? Where did all the wealth go and who benefited?

To many environmental activists in the Philippines, the aspired development will never come as long as our governments remain beholden to the interest of developed and imperialist countries. Their rich and powerful transnational corporations, whose interests steer multilateral financial institutions, exploit our countries’ indebtedness in order to plunder our natural wealth. The insatiable desire for profit and relentless capital repatriation is what drives TNCs to operate overseas as they do.⁵ Abetted by local business and corrupt governments in the developing countries, these corporations are fast depleting the mineral wealth of our countries and opportunities for us to develop as they had.

Historical Context of Current Trends

In the past century, big players in the mining industry involved three sectors – the producers, the consumers or end users, and the merchants or middle men. The producers are those companies involved in the metallic mineral stages, i.e., exploration, development, mining, processing and closure. The consumers are the buyers of the metallic minerals in the form of finished industrial or consumer goods. The middle men are the traders and/or financiers of the mineral industry.

Now, these sectors have collapsed into one. They have become highly transnational in operations, integrating upstream and downstream industries, involving into corporations which dominate and control not only the production and downstream processing but

⁴ Sachs, Jeffrey D. and Warner, Andrew M., “Natural Resource Abundance and Economic Growth”, (Harvard University: November, 1997).

⁵ Ocampo, Satur, “Philippine Mining and Imperialist Mining: A Keynote Address”, Proceedings of the National Conference on Mining, Baguio City, Philippines, May 6-8, 2002.

also the marketing through which minerals from underdeveloped countries are sold to developed countries.

In the 1960s-70s, the rise of nationalist movements has driven governments to nationalise foreign mining operations. The potentials of metal mining after the Second World War also led governments to take over companies or maintain shares in private corporations in their countries.⁶

From 32 foreign mining companies expropriated in the 60s, the number rose to 48 in 1970 to 1976. This included copper mines nationalised in Chile, Peru, Zaire (now the Democratic Rep. of Congo) and Zambia and the bauxite mines in Guinea. The 70s saw the Government of Jamaica buying 51% stake in three previously fully foreign-owned bauxite mines, while retaining the foreign investors as mining operators. There were also nationalisation of mines in Madagascar, Brazil, Chile, India, Mauritania, Venezuela, Morocco, Indonesia and Bolivia.

By the 80s, the role of TNCs in developing countries had been limited to minority holdings and non-equity agreements in state-owned enterprises.

By the 90s, mining corporations began to stage a comeback, with some boosting not only from the World Bank (WB), but also other international institutions and capitalist governments. The WB mobilised its various financial institutions including the International Bank for Reconstruction and Development (IBRD), International Development Agency (IDA), International Finance Corporation (IFC), Multilateral Investment Guarantee Agency (MIGA), and the International Centre to Settle Disputes (ICSID) to support mining TNCs. The International Monetary Fund (IMF), regional multilateral banks, such as ADB and IADB and the Export Credit Agency helped bail out mining TNCs.⁷

The IMF and the WB dangled loans in exchange for the countries' opening up to foreign direct investments (FDIs) and privatisation in mineral production. The relentless drive to liberalise world mining industry started with the implementation of neoliberal mining policies which spanned some 80 countries. Restrictions on foreign ownership, regulations on capital controls, generous tax breaks and auxiliary rights were dismantled.⁸

The US government, through regional agreements like North American Free Trade Agreement (NAFTA) and bilateral pacts, added to the pressure to liberalise the industry. So did the United Nations (UN) which has become increasingly active over the last decade to bring together TNCs and their governments, the governments of developing countries and civil society in conferences of seemingly "equal" parties and stakeholders. Philippine Party List Rep. Satur Ocampo opined: "... the illusion that the UN sought

⁶ UNCTAD, "World Investment Report 2007: Transnational Corporations, Extractive Industries and Development", (WIR 2007), UN, New York: 2007.

⁷ Tauli, Victoria, "Challenging the Mining Industry's Offensive in the WTO, UN, MFIs and WSSD", Proceedings of the National Conference on Mining, Baguio City, Philippines, May 6-8, 2002.

⁸ Ocampo, p. 16.

to create is that fundamental change can be achieved through non-confrontational advocacy and collaboration; but between the big and small, you can expect how things can come out.”⁹

Many of the nationalisation efforts succumbed to the pressures which were compounded by the lingering world recession and continuous decline of mining operations, and the fall in world prices of metals and profits for the past three decades.

Mining corporations on their part have moved in to address the poor image and credibility they suffered from mining fiascos and strong resistance from host communities. In 2001, top mining TNCs launched various projects, like the Global Mining Initiative, and the Mining, Minerals and Sustainable Development Project, to gain support from world business conglomerates, the UN, and civil society groups. In 2002 they packaged their comeback through the World Summit on Sustainable Development (WSSD) with promises of adhering to sustainable mining, responsible mining and corporate social responsibility.

Plundering the Wealth of Nations

The most important metals in world mining in 2005 (see Table 2), include precious metals like gold and silver and base metals like iron, copper, nickel, zinc and bauxite.

Table 2. Most Important Metals in World Mining, 2005

Metal	Share in total value of metallic mineral production (%)*	Volume of output (metal content in kilotonnes)	Share of foreign affiliates in world production (%)**
Iron Ore	21.9	800,000	21
Copper	18	16,900	56
Gold	13.5	3	50
Nickel	4.9	1,300	36
Zinc	3.4	10,300	37
Bauxite	1.5	31,000	60
Others	36.8
All Minerals	100
<i>Source: UNCTAD, based on data from the Raw Materials Group</i>			
<i>* Estimates</i>			
<i>** Foreign affiliates are considered to be those with at least 10% foreign ownership.</i>			

Source: Table III.1, World Investment Report (WIR) 2007, UNCTAD. www.unctad.org/en/docs/wir2007_en.pdf

⁹ Ocampo, p. 17.

The world's minerals are largely produced in developing countries and transition economies of Southeast Europe and Commonwealth of Independent States (CIS), although developed countries contribute significantly to the world's totals. On the other hand, the developed countries consume almost half of the world's metallic minerals, except for iron and gold, where developing countries in Asia, particularly China and India, register as top consumers. (See Table 3.)

Table 3. Production and Consumption of Selected Metallic Minerals, 1995 and 2005 (%)

Regions	Iron		Copper		Gold		Nickel									
	production	consumption	production	consumption	production	consumption	production	consumption								
	2005	1995	2005	1995	2005	1995	2005	1995								
Developed Countries	29	17	29	37	43	41	46	64	28	34	39	37	30	31	50	52
Africa	4	6	1	2	9	6	1	1	21	30	4	3	5	6	3	5
Latin America and the Caribbean	24	31	5	8	21	19	6	5	18	12	2	2	17	12	13	10
Developing Asia	29	27	52	39	6	12	42	28	23	14	53	56	26	28	12	10
Southeast Europe and CIS	14	19	13	14	21	22	5	2	10	10	2	2	22	23	22	23
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: Table III.4, WIR 2007, UNCTAD

The leading producers of important metals, per country are as follows:¹⁰

- Gold – South Africa, US, Australia, China
- Copper – Chile (main producer), US
- Iron – China, Brazil
- Nickel – Russia
- Silver – Mexico, Peru, Canada, US and Australia
- Lead – Australia, US

Mining TNCs' Drive for Profit

There are now more than 4,000 metal mining firms across the globe. These mining firms are classified into majors, medium-sized and juniors.

Major mining corporations which number to 149 have production facilities that cover mining to smelting to even refining. They contribute 60% of the total value of all non-energy minerals produced.

Medium-sized corporations, numbering 957, account for 40% of the value of production.

Junior mining corporations which make up most of the mining companies in the world are relatively small corporations that engage in high-risk investments that may sometimes prove to be very profitable. They number about 3,067. They lack expertise and long-term capital to pursue mining projects after exploration, so they enter into partnerships with big corporations. They are usually financed by “smart money” on the stock exchanges of Canada and Australia, or get investments from pension, mutual and insurance funds. They are thus highly speculative and can rack up big share price gains without digging a hole.

Apart from these major types of mining firms, there are believed to be more than 4,000 unidentified small, medium-sized companies and artisanal groups that operate worldwide.

The levels of internationalisation of the major corporations have varied substantially. Anglo American and Xstrata both have mining exploration activities in 14 countries. Of the top 25 corporations, identified by Raw Materials Group, only four operate in only one foreign country. In terms of mining production, Rio Tinto have the largest of number of 10 host countries in 2005, followed by Anglo American and Anglogold Ashanti, which operated in nine countries. In terms of smelting and refining, Glencore has the most number of 13 host countries, followed by BHP Billiton which has nine. Only 13 of the 25 corporations have foreign refining capacities.

In 2005, fifteen TNCs from developed countries made it to the list of top 25 metal mining companies (see Table 4).¹¹ Eight of the 25 come from developing countries, with two coming from the Russian Federation. The top four are global players with worldwide operations, producing a variety of metals. The next 6 are more or less single commodity producers with the exception of Grupo Mexico.

¹⁰ Carling, Joan, “Mine . . . all Mine”, Globalisation of the Mining Industry and the Philippine National Minerals Policy: A Power-point Presentation, Cordillera Peoples Alliance, 2002.

¹¹ World Investment Report 2007, Table IV.4, page 109.

Table 4. Top 25 Mining TNCs, 2005^a

Rank 2005	Rank 1995	Company name	Country	State ownership (%)	Share in the value of world production (%)	Cumulative (%)
1	4	BHP Billiton	Australia	-	4.8	4.8
2	2	Rio Tinto	United Kingdom	-	4.6	9.4
3	6	CVRD	Brazil	12	4.4	13.8
4	1	Anglo American	United Kingdom	-	4.3	18.1
5	5	Codelco	Chile	100	3.2	21.3
6	7	Norilsk Nickel	Russian Federation	-	2.2	23.5
7	9	Phelps Dodge	United States	-	2.0	25.5
8	22	Grupo México	Mexico	-	1.6	27.1
9	26	Newmont Mining	United States	-	1.3	28.4
10	11	Freeport McMoran	United States	-	1.3	29.7
11	13	Falconbridge	Canada	-	1.2	30.9
12	53	Anglogold Ashanti	South Africa	3	1.1	32.0
13	15	Inco	Canada	-	1.0	33.0
14	.. ^b	Xstrata	Switzerland	-	1.0	34.0
15	14	Barrick Gold	Canada	-	1.0	35.0
16	.. ^c	Airosa	Russian Federation	69	0.9	35.9
17	18	Placer Dome	Canada	-	0.9	36.8
18	31	Teck Cominco	Canada	-	0.8	37.6
19	10	Gold Fields	South Africa	10	0.8	38.4
20	19	KGHM Polska Miedz	Poland	44	0.7	39.1
21	88	Antofagasta	United Kingdom	-	0.7	39.8
22	8 ^d	Impala Platinum	South Africa	-	0.7	40.5
23	113	Glencore	Switzerland	-	0.6	41.1
24	.. ^e	Harmony Gold Mining	South Africa	-	0.6	41.7
25	37	Debswana	Botswana	50	0.6	42.3

Source: UNCTAD, based on data from the Raw Materials Group.

- ^a The ranking is based on the value of total production, including diamond.
- ^b Glencore had not formed Xstrata in 1995 (MIM, a recent acquisition of Xstrata, was ranked 33).
- ^c No production data are available for this year.
- ^d In 2000, Impala was controlled by Gencor Ltd.
- ^e The company did not exist in 1995.

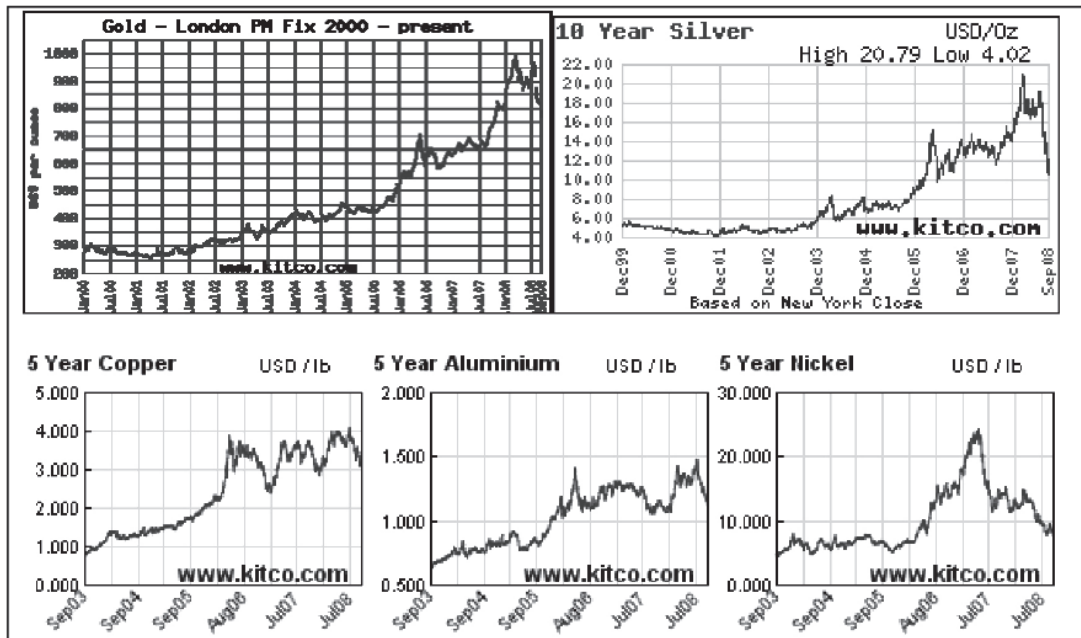
Source: Table IV.4, WIR 2007, UNCTAD

Tightening Race for Monopoly Profit

The aftermath of the Second World War created a good demand for minerals which was deemed the “golden period” for the industry until 1974. Though, generally metal prices have been very volatile with respect to varying market conditions, it suffered a great dip in 1974, and has only sprung back in 2004.¹²

¹² WIR 2007, p. 88.

Figure 1. Five to Ten Year Trend in World Prices of Selected Metallic Minerals



Source: www.kitco.com

A contributory factor to the surge in metal prices is the very strong demand, mostly coming from China, combined with supply constraints after a prolonged slowdown of the industry. Mining TNCs are reaping the fruits of the liberalisation process, which have increased corporate profits worldwide, resulting in higher stock prices that in turn raised the value of cross-border mergers and acquisitions (M&A). A concomitant development is the growing importance of private equity funds and other collective investment funds, that has not only fueled mining investments overseas but has also figured in cross border M&As as well.

The degree of concentration in the metal mining industries has increased significantly, especially following the big cross-border mergers in 2006. Now, the share of the top ten largest mining companies has risen from 38% to 47% in gold, followed by iron ore from 44% to 52%, copper from 51% to 58%, and zinc from 38% to 43%.

Major mergers and acquisitions over the last decade include the following:

1. Billiton Plc and BHP in 2001
2. AngloGold and Ashanti Goldfields, creating Anglo Gold Ashanti in 2004
3. BHP Billiton and WMC Resources, Ltd in 2005
4. Xstrata seized control of Falconbridge in 2006
5. CVRD takeover of INCO (Canada) in 2006
6. Freeport McMoRan acquired Phelps Dodge in March 2007
7. Rusal, Sual and Glencore, in March 2007
8. Rio Tinto (United Kingdom) friendly takeover of Alcan (Canada), creating Rio Tinto Alcan in November 2007

These mergers and acquisitions have created mining giants out of Australia's BHP Billiton, UK's Rio Tinto and Anglo American, Brazil's Vale (formerly known as *Companhia Vale do Rio Doce* or CVRD), and Switzerland's Xstrata. The enormous assets and funds concentrated in these companies drive them to continually outmanoeuvre each other to control the world's prime mineral deposits and their processing. They not only corner vast mineral production assets but finance capital as well, compounding ever their capacity to acquire and control more mining production projects.

The recent rise in world prices of metallic minerals raises various concerns from different sectors and stakeholders. To mining-affected communities, concerned people's organisations, environmental and patriotic activists in host developing countries, this is a threat that must be overcome. To mining companies this is an opportunity that they are sure to seize. However, considering the sensitivity of metal prices to the vagaries of world developments, such opportunity is bound not to last with the financial crisis in the US and much of the rest of the world.

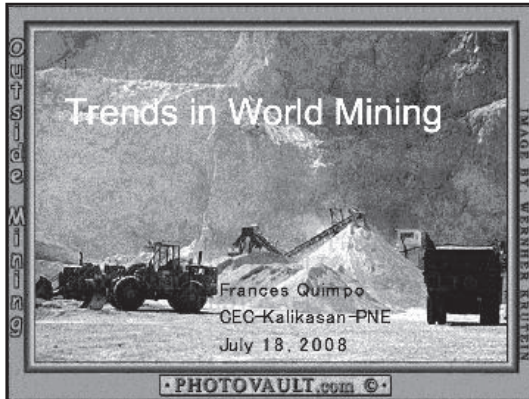
People's Struggles

Whether world metal prices will remain high or not, people's resistance against imperialist mining is on the rise and will continue to rise. We cannot allow our non-renewable wealth to be depleted and wasted for the accumulation of profit by a few and the deprivation of our hungry people; worse, to be used as weapons and ammunitions against our kind who only seek justice and our very right to development.

Let us strengthen and expand our ranks to call for the reversal of the liberalised mining codes. Let us call for a suspension or moratorium on mining operations and the exportation of our mineral and natural resources until our governments have set in place a programme to use our mineral wealth for our own countries' national development.

Let us continue to oppose and foil attempts to mislead our people and to whitewash the plunderous intent of mining TNCs, their financiers, the private and international financial institutions. Let us relentlessly champion our people's rights to their land, resources and development. Let us expose and oppose our governments which contemptibly sell our countries' patrimony for a share in TNC profits. Let us learn from the experiences of countries that have stood up against neo-liberal impositions and make such resistance work.

Lastly, let us treasure and learn from every loss or every triumph in our anti-TNC mining struggles, however small they may be, to prepare for bigger, more militant and strategic fights against monopoly capitalism and champion our people's cause.



Past Century

- Major Players
 - Producers
 - End Users
 - Merchants/Middle Men
- Mining companies in North America and Western Europe undertook production in mineral-rich countries in colonial Asia, Africa and independent Latin American countries
- Colonial governments allowed them long-term access to the minerals
- Increasing demand for minerals until the 80s

90s Crisis and Neo-Liberal Assault

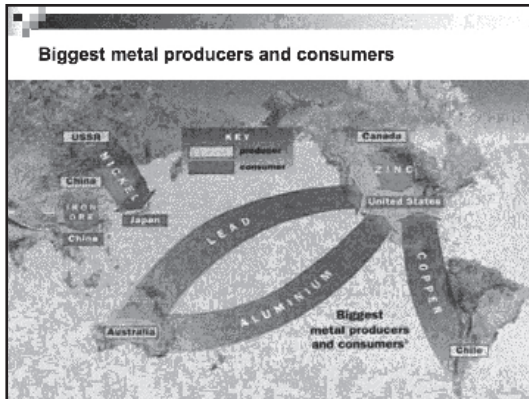
- Falling prices since late 80s until 1993, 1995 to the present
- 1991-93 world economic recession, brings down price of metal
- Demand for copper went down due to technological developments
 - Substitution of copper with alum and optical fibers
 - DR pellets/sponge iron
 - Electric arc furnace
- Increased inventories in the world market
- 90s crisis in the mining industry: overproduction of heavy metals in the world market vis-a-vis world recession
- Imposition of neo-liberal policies in the world industry
- Asian financial crisis in 1997

Present Century

- Only few players
 - highly transnational
 - integrating upstream-downstream aspects of the industry
 - controlling not only production but major marketing institutions through which minerals are sold to users in developed countries

Lead Country Producers of Most Important Metallic Minerals

- Copper – Chile is main producer; US
- Iron – China and Brazil
- Gold – South Africa
- Nickel – Russia
- Silver – Mexico, Peru, Canada, US & Aus
- Lead – Australia and US



TOP 10 TRANSNATIONAL MINING COMPANIES

Company	Nationality	Capitalisation	% Share
BHP	Australia	24,082	8.35
RTZ	United Kingdom	13,628	4.73
Anglo-American	SA	12,386	4.30
De Beers	SA	9,609	3.33
CVRD	Brazil	9,170	3.18
Barrick Gold	Canada	8,906	3.09
Alcoa	US	8,284	2.87
CRA	Australia	7,971	2.76
Alcan	Canada	6,653	2.31
Placer Dome	Canada	6,032	2.09
Western Mining	Australia	5,901	2.05

Source: James Cappel Global Index, May 1995

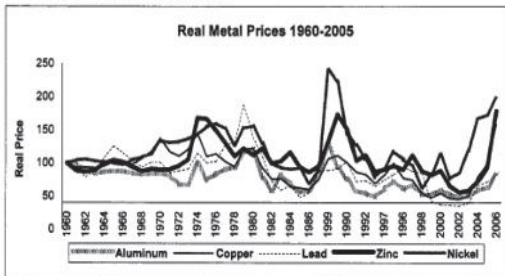
Mergers

- RTZ and CRA
- BHP acquisition of Magma
- Gencor's takeover of Billiton and Royal Dutch
- Merger of ALCOA and Western Mining
- American Barrick and Lac Minerals
- Inco and Diamond Fields Resources
- Anglo American and Ashanti
- Battle Mt. Gold and Hemlo
- Vale took over Inco last year for US\$19 billion
- Xstrata seized control of Falconbridge

The price of various minerals is rising to historically-high levels fuelled by a number of factors

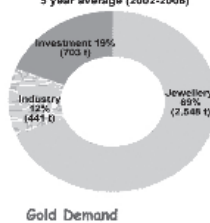
World Trends

Real Metal Prices 1960-2005



World Trends

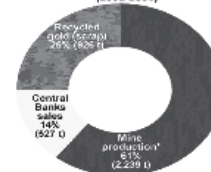
Demand Flows 5 year average (2002-2008)



"There is a gold rush of unprecedented proportions under way around the world today,"

Gold Supply

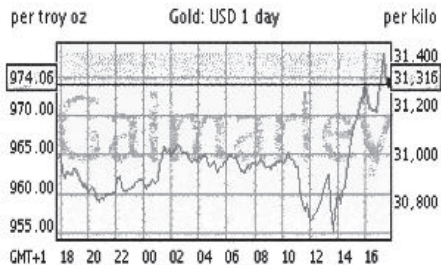
Supply flows five-year average (2002-2008)



*Mine production net of hedging

Gold Rush Era

- gold most lucrative sector in the mining industry
- gold is peculiar commodity that reacts inversely to crisis
- traditional store of value
- failsafe currency
- jewelry fabricators are biggest consumers



Other Factors

- Increased demand by new entrants like China and India
- Mining giants from mergers
 - BHP Billiton,
 - Rio Tinto,
 - Anglo-American
 - Xstrata
 - Brazil's Companhia Vale do Rio Doce (Vale) and Swiss-based Xstrata PLC are in talks to combine
 - BHP Billiton and RTZ - Alcan
 - Vale and Alcan

Other Factors

- the US foreign policy shift, in particular the War on Terror
- global market speculation
- role of financial capital

Ways of Financing

- Loans from banks
- Deal with the users
- Enter into joint ventures with other companies or the state and arrange for co-financing
- World Bank intervention

- End-users intervention/consortiums
 - Provide equity capital or financing in exch for part of production
 - Invest capital, together with others in exch for exclusive refining rights
 - Provide financing in exch for prod itself or mktg
 - Provide financing though bilateral and multilateral banks
 - LHD machines of miner-mucker workers

MULTILATERAL and BILATERAL FUNDING OF MINERAL PROJECTS:1995-99

Institutions	SUS million
World Bank	5,950
European Bank for Reconstruction & Development	946
Asian Development Bank	2,025
Inter-American Development Bank	1,073
Export Credit Agencies (oil and gas only)	40,500

Source: Journal of Political Economy

Emergence of Junior Mining Companies

- Former geologists of companies that closed down
- Lack expertise and long-term capital but enter partnerships with big corporations
- Financed by "smart money" on the stock exchanges of Canada and Australia
- Investments from pension, mutual and insurance fund
- Highly speculative
- But JMCs racked up big share price gains without digging a hole

Impacts of the Neo-Liberal Policies in Mining

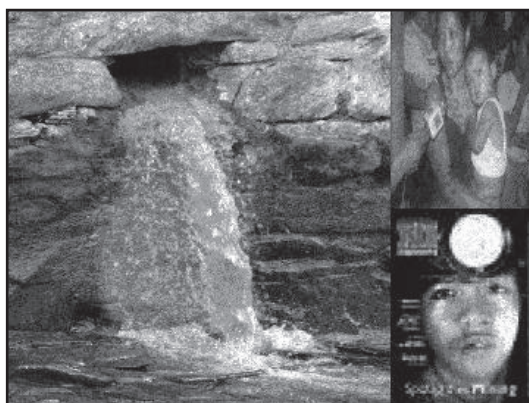
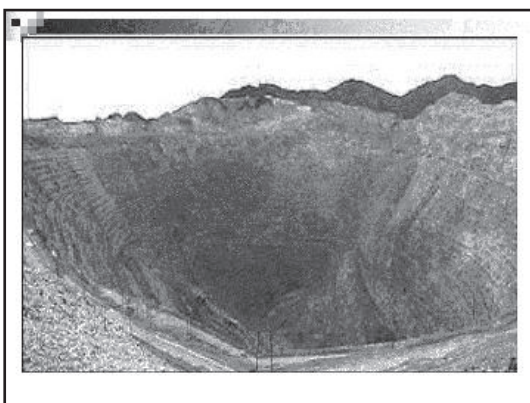
- Revised fiscal terms, provision of incentives, and the creation of new institutions did not bring about promise of jobs, environmental protection, CSR
- Despite the emerging democratic culture and new doctrines of participatory planning and development on the continent, most of investment agreements take place in very untransparent processes, under unacceptable conditions

- Countries have not benefitted from the mineral price surge that is taking place
- The process of liberalisation has translated into
 - serious economic deprivation
 - environmental destruction
 - restrictions in the rights of citizens, in particular people in communities where mines and mine facilities are located

FOR AS LONG AS YOU SHALL LIVE...

RIP	RIP
Yana Machi and Pilcomayo Rivers PERU Survived by: Compania Minera del Sur.	Iron Mountain Mine US Survived by: Rhone Poulenc Inc.
Dumped: 235,000 tons of pollutants including arsenic and cyanide from tailings dam.	Dumped: Up to a ton of heavy metals daily in nearby rivers and streams.
Endangered: Fish and food supplies for the Mataco and Chiriguano indigenous peoples.	Polluted: Water is now 10,000 times more acidic than battery acid Expected to leach acid for another 3,000 years.

RIP	RIP	RIP
Ok Tedi River PAPUA NEW GUINEA Survived by: Broken Hill Pty. Ltd.	Porgera River PAPUA NEW GUINEA Survived by: Porgera Joint Venture.	Rio Tinto River SPAIN Survived by: Rio Tinto plc.
Dumped: 80,000 tons of rock and toxic tailings.	The 'next Ok Tedi' Polluted: Zinc, lead and mercury found at levels 3,000 times higher than PNG standards.	Polluted: Copper found at 200 times normal concentration.
Killed: Turtles, crocodiles and fish.	Killed: 133 unusual deaths; locals suspect pollution.	Polluted: Mercury 500 times greater than normal.



EMPLOYMENT LOSSES IN MINING: SELECTED COUNTRIES: 1985-2000 Source: International Labour Organisation: 2002

	EMPLOYMENT IN 1985 (THOUSANDS)	EMPLOYMENT IN 2000 (THOUSANDS)	CHANGE 1985-2000
India	755	600	-21
South Africa	807	417	-48
United States	344	227	-34
Romania	205	77	-62
Mexico	83	68	-18
Canada	78	53	-31
Australia	84	48	-43
Bolivia	70	47	-33
Thailand	58	17	-71

Impacts of the Neo-Liberal Policies in Mining

- an increase in alleged cases of violence and human rights abuses perpetrated against small-scale and artisanal miners and people living in communities affected by mining and oil projects by State security, and private security of mining companies
- many cases of violent actions by the State and mining companies towards local communities and small-scale miners has become the mode of resolving legitimate concerns

- Cases of Strategic Lawsuits against Public Participation (SLAPP) were filed against many environmental activists
- Moreover, the replacement of the subsistence economy by cash economy on which communities and women within them have no control at all has resulted in the marginalisation of women
- Undermine the principles of national development

WASTE PRODUCED BY MINING – SELECTED METALS: 2000

Metal	Waste Produced (million tons)	Metal Produced (million tons)	Share of ore as usable metal (percent)
Iron Ore	2,113	845	40
Copper	1,648	15	0.91
Gold	745	0.00025	0.00033
Lead	260	7	2.5
Aluminum	104	24	19

Source: US Geological Survey; Minerals Yearbook 2000

SELECTED EXAMPLES OF MINING'S ENVIRONMENTAL TOLL
Source: World Wide Fund for Nature (WWF), Metals from the Forest: 1999

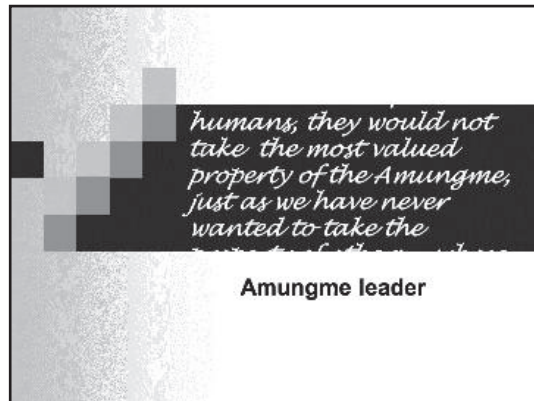
IMPACT	EXAMPLE	DETAILS
Biodiversity Loss	Okapi Reserve National Park Congo	80-90% decline in lowland gorilla
Water Pollution	Ok Tedi, PNG	2000,000 tons of waste rock dump each day-silted up two rivers for 4-5X than normal flooding nearby villages killing off plant life in a 2,000 sqm area near river basin
Water Cause	Gold Mines in North-eastern	pumped out more than 2.2 trillion litres of groundwater, between 1986 and 2000 – as much water as New York uses each year
Air Pollution	Norilsk Nickel Smelter, Russia	sulfur-dioxide pollution-destroyed 3,500 sqm of forests and harm the health of local residents

FOR RICHER AND FOR POORER...

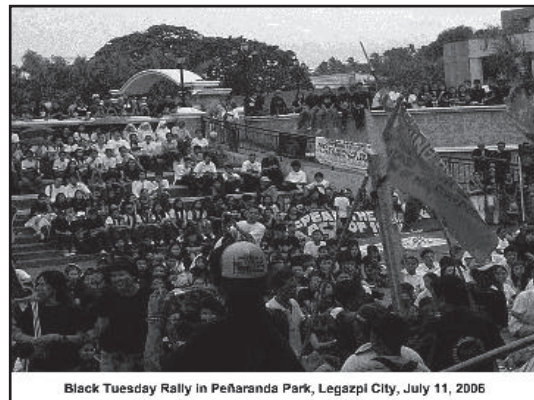
- Nations where the most mining takes place are also some of the poorest. There is a correlation between the standard of living (measured by the United Nations Development Programme Human Development Index - the highest score being one) and the reliance of government on mining. The little money that poor countries get from mining companies is pocketed by international banks, not local people. Fourteen developing countries get at least a third of their export revenues from minerals. Their external debts are 1.4 times greater than their Gross National Product (GNP).

MINERAL DEPENDENCE AND POVERTY RATES in SELECTED COUNTRIES: 1990s Source: UNCTAD Handbook of World Mineral Trade Statistics; World Bank Development Indicators; UN Development Programme: Human Development Report 2001

Country	Share in non-fuel minerals in value of total exports (percent)	Population below poverty line (percent)
Guinea	17	40
Niger	67	63
Zambia	66	86
Jamaica	53	34
Chile	43	21
Peru	40	49
Congo	40	49
Mauritania	40	n.a.
Papua New Guinea	35	57
Togo	30	32



- People's Response**
- Calls to review or to scrap the liberalised mining codes
 - Suspension/moratorium on mining operations (Ecuador)
 - Proposals for alternative policy proposals and inventory of issues for continuing resistance to the plunder of mineral resources, while promoting social, economic and environmental justice, in particular for communities affected by mining (Philippines)
 - Continuing advocacy, organising and mobilising of various sectors
 - International campaigns, engaging international bodies, international financial institutions and private banks



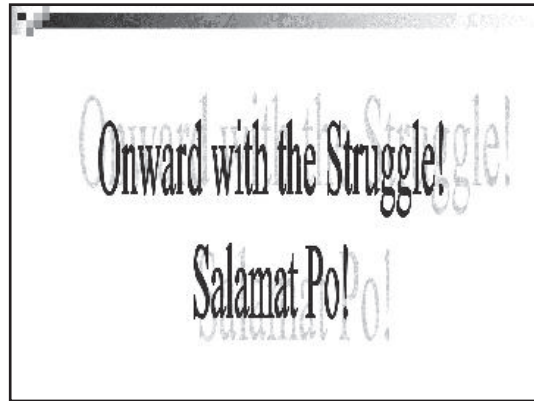
Black Tuesday Rally in Peñaranda Park, Legazpi City, July 11, 2006



Black Tuesday Rally in Rapu-Rapu, July 18, 2006



Picket at the DENR Regional Office April 20, 2006



Bangladesh

Phulbari Coal Mining Project

Report from the presentation by Khushi Kabir, Nijera Kori
and Earth Touch No. 10, April 2007¹

The coal mining project in Phulbari, Bangladesh was started by Australian mining giant BHP through a contract with the Bangladesh government in 1994. In 1998, the contract was transferred to Asia Energy (a subsidiary of Asia Energy, London). After estimating coal reserves, Asia Energy submitted a plan of operation to the government of Bangladesh. Asia Energy was granted environmental clearance to operate.

According to Asia Energy, the project requires 5,900 hectares or 59 sq. kms. of land. The area covers more than a hundred villages or seven unions in four *upazilas* (sub districts) – Phulbari, Birampur, Nawabganj and Parbatipur. Thousands of acres of cropland fall within its boundaries. Beneath the expanse of beautiful landscape lies the 38-metre-thick coal fossilised over 270 million years. According to Asia Energy, the coal reserve in this mine is 572 million tons and it can even be more if further explored to the south of the present mine.

Asia Energy claims that the government of Bangladesh will receive benefits worth US\$21 billion over 30 years of the mine's lifetime. The company statement was, however, lambasted by a local economist saying that the company is trying to deceive the people by merely showing figures of monetary benefits but does not talk about the extent of environmental damage caused by the mine. Asia Energy is covering up concerns and evading questions about its activities.

The inhabitants of the mine area complain that people living in other parts of the country do not realise their plight, nor do they foresee the disaster the open-pit mine is likely to cause to this region. Being an open-pit mine, this will necessarily evict area inhabitants, destroy their homes and other infrastructures already in place like schools and other establishments. Asia Energy defends itself by saying that it is indicated in their contract with the Bangladeshi government that in the exploration of coal, 40,000 people need to be relocated. This number is way below the actual figures of people to be affected. The Phulbari Raksha (Protection) Committee, composed of local people from all faiths, ethnicities and political beliefs at the local level, says that there are 150,000 people who will be directly affected and 200,000 to 250,000 will be indirectly affected.

It is not only people who will be evicted and displaced. Traditions, social organisations and livelihood will also be lost. A woman lecturer of the Phulbari Women's Degree College asserts that these losses are beyond compensation.

¹ Society for Environment and Human Development (SEHD), Bangladesh, <http://www.sehd.org/reports-features/phulbari.doc>

Asia Energy promises compensation for damages and an improved condition of the inhabitants, “better than before”. However, the aura of distrust and the demand of the locals are clear. They do not want open-pit mining. From June 2005, the Phulbari Raksha Committee had been organising meetings every Saturday in Phulbari to protest the mine.

Open-pit mining requires the area to be completely dewatered so that the hollow of the mine does not get immersed in water. Large pumps are therefore required to suck out the underground water around the mine round the clock during the entire duration of the project. The impact on the already dry Barind Tract is obvious. Water level runs lower in the Barind Tract during dry season making it difficult for the tubewells to draw water. When dewatering for the mining starts, the shallow and deep tubewells will not draw enough water for farmers in the areas near the mine. The solution of Asia Energy is to distribute water that is pumped out among the farmers. The effectiveness of this water distribution method is uncertain.

In order to reach the layer of the coal, 150 to 250 metres of earth cover will have to be removed, leaving a deep hollow. The company says that land fill will be done, however, the land area may never be cultivatable again. Asia Energy also floats the idea that a huge lake will develop after 30 years of operation. That lake can be filled with fresh water providing a big source of water, fishery and recreation. But mining experts warn that by then the deep hole will be full of toxic substances. Air pollution will be a big problem with so much blasting and non-stop movement of heavy earth-moving equipment.

Asia Energy has turned down the demand of the Phulbari people to wait until Bangladesh built its own expertise and mining technology. The company insists that it is high time to extract the coal.

August 26, 2006 was an unforgettable day for the Phulbari resistance movement against the coal mine project. At least three persons were killed and more than 200 were wounded when the paramilitary force, Bangladesh Rifle (BDR), opened fired on protesters in Phulbari Dinajpur. Under the banner of the “National Committee to Protect Oil, Gas, Mineral Resources, Power and Port”, approximately 50,000 protesters consisting mainly of farmers, ethnic communities and residents of Phulbari marched towards the Asia Energy offices, demanding the cancellation of the coal mine project.

Protest actions were sustained for days. On September 3, the government pledged to provide compensation amounting to Bangladesh Taka (TK) 200,000² to the families of those killed and TK 700,000 for treatment of those injured.

The violent action against the protesters shook the whole nation. Phulbari may have returned to normal life but the fears still persist. The protesters have sent a clear and strong message to the state agencies and the company that it is their land that contains the 270-million-year-old coal. It is them who decide if the resource is to be shared in the best interest of the community and the nation.

² 1 US dollar is approximately 68.725 Bangladesh taka (June 2009).

Cambodia

Mining Situation in Cambodia

Panha Sok
Banteay Srei

(Sources of information: NGO Position Paper on the Environmental and Social Impacts of Expansion of the Extractive Industries Sector, published by the NGO Forum on Cambodia, the Cooperation Committee for Cambodia and Medicam, in November 2008 and the National Level Network on Social and Environmental Impacts of Extractive Industry.)

Introduction

Development of large-scale extractive industry has grown rapidly in Cambodia since 2005. Large-scale mining exploration has been granted to international companies and medium-scale mining continues to expand.

Information and expertise about the extractive industry are extremely limited in Cambodia. It has become apparent that it is an extremely complex and sensitive area that requires special attention.

Overall, members of civil society are extremely concerned about ensuring processes are transparent and fair, there is adequate open and transparent consultation so that negative impacts are minimised. An effective network at national level will provide a solid foundation for future advocacy initiatives to address community and civil society concerns.

National Legal Framework and Policy on Mining

Mineral exploration and exploitation are governed under the Law on Mineral Resource Management and Exploitation (2001), the Law on Environmental Protection and Natural Resources Management (1996), Protected Area Law (2008), Sub-decree on Environmental Impact Assessment Process (1999) and Law on Forestry (2005).

Other relevant regulatory frameworks which could be used to help protect local communities and the environment from the negative impacts of the extractive industry are:

- Cambodia is a signatory to international human rights conventions and the Convention on Biological Diversity
- Cambodia also voted in favour of the United Nations Declaration on the Rights of Indigenous Peoples
- Private companies also have their own safeguard policies and frameworks that influence their activities in this area

Theoretically Cambodian laws should regulate activities in the extractive industry sector, including:

- The type of license (exploration or exploitation)
- The size of the concession
- Environmental and social impact assessments at different phases of exploration and exploitation
- Community consultation processes
- Community compensation
- Revenue management
- Government transparency and accountability
- Environmental and biodiversity protection

However, there is low-level compliance with the legal framework within the extractive industry. The current legal framework is weak and has a number of gaps. The Law on Mineral Resource Management and Exploitation states that before entering any privately owned land for exploration or mining, the concessionaire must compensate the “private land owner” for any inconvenience and damage to the land.¹ This leaves those without legal land title (i.e., most Cambodian households) with little protection.²

The Ministry of Environment (MoE) is technically responsible for regulating mining activities but in reality has little authority due to lack of information, obstruction by various authorities and the fact that mining concessions often have powerful backers with government and military connections. Neither Initial Environmental Impact Assessment (IEIA) nor Environmental Impact Assessment (EIA) is being performed before exploration activities commence. NGOs were disappointed to hear, therefore, that the MoE has launched a type of guaranteed contract that would no longer IESIAS as part of the application process for the license approval. In addition, recent changes in government policy indicate that the MoE has decided to give priority to mineral resource mapping for extraction, over the zoning and biodiversity protection within protected areas.

Licensing Exploration of Minerals

The Royal Cambodian Government has been issuing exploration licenses across Cambodia to assess the commercial viability of mining iron ore, gold and other metallic minerals including bauxite, coal and gemstones. Mining industry companies are mostly Cambodian or joint ventures. International partners include Australian, Chinese, US, Japanese and Vietnamese companies. Please see the list and map of companies with mining licenses by province in Annex 1.

¹ 2001 Law on Mineral Resource Management and Exploitation, Articles 7 and 25. Private land ownership refers to those with title on the land registry. Those with possession rights are normally not interpreted to meet the conditions of Article 7 of the Law on Mineral Resources until they have transformed their possession rights into a title (based on Article 39 of the Land Law); neither are indigenous communal land titles included in “private land ownership”.

² Those without legal title but with indigenous communal land title should still be protected because the Royal Government of Cambodia has ratified the International Covenant on Economic, Social and Cultural Rights (ICESCR) which includes the obligation to respect citizens’ right to adequate housing and forbids the destruction of land necessary for subsistence.

Negative Impact of Mining on Natural Environment and People's Life

Without access to the relevant EIAs, it is not possible to assess the potential impact and to what extent mitigation measures proposed by the companies are adequate. Some negative impacts are already being reported by local communities to NGOs resulting from the exploration or illegal exploitation activities of mining companies. In Preah Vihear, Mondulkiri and Ratanakiri, local communities alleged that during 2008 large numbers of cattle died as a result of the use of poisonous chemicals in processing, for example, leaching to extract gold from ore. In Mondulkiri and Ratanakiri, local communities made numerous allegations of environmental pollution (such as water sources) from illegal small- and large-scale mining operations. They also reported a number of deaths (including one child) from accidents in unsafe mines. Affected communities claim that loss of access to agricultural lands and forest resources has already undermined food and water security and they are fearful of the impact of future expansion of extraction activities. Additionally, mining activities increasingly involve the threat of relocation without resettlement plans.

Large-scale mining in Cambodia is expected to require significant infrastructural support. Both iron and bauxite extractions only have economic returns when conducted on a large scale; both require significant sources of electricity and water and cheap transportation. These additional developments will exacerbate impacts such as displacement of local communities, deforestation and will impact on biodiversity, destruction of watersheds and disruption of water supplies, and the increasing demand for energy.

Militaristic Responses from the Mining Companies

Whilst civil society understands the need to protect mining exploration activities with guards, they are very concerned about increased military involvement reported at many of the large mining sites such as Southern Mining, Friendly Nation, Rattank-Kenertec and Cambodia Iron and Steel. This militarisation is consequently associated with other problems for local communities:

- Access restrictions: In Preah Vihear, access is already restricted on some roads surrounding large mining concessions which have reduced movement between adjoining communities. Demarcation of concession boundaries has also restricted community access to forest resources.
- Intimidation and threats of displacement: In Anlong Chrey and Anlong Phe communes (Thalla Barivat district, Stung Treng province) communities in at least 3 villages (Asnlong Chrey, P'Ao and Veal Po) have been given notice to vacate their land without any resettlement plan or the promise of compensation. Community members worry that current occupation by military police would allow easy deployment of forces to aid in village eviction process and may involve aggression. In Chong Plas commune, Keo Seima district, Mondulkiri, some people have been told they will be relocated, and others have been forced to "sell" their land to mining companies under the threat, it "will be mined anyway".³

³ <http://www.kenertec.co.kr/korean/main/main.asp>

Response from Civil Society

Currently, there is a working group for National Network on Social and Environmental Impacts of Extractive Industry which comprises of representatives of NGOs, community-based organisations and donors. A working group has recently been formed to address the social and environmental impacts of extractive industry activities. There have been a number of meetings discussing how civil society can most effectively address these issues.

However, strategies and action plan of the working group are still being discussed.

Annex 1: List of Companies with Mining Licenses by Province

BATTAMBANG	Oxiana Cambodia Limited and Shin Ha Mining Company Ltd.
Cambodia Mining Development Co. Ltd.	Southern Gold Ltd.
Jireh International Cambodia Construction & Import-Export Co. Ltd.	Summer Gold Investment PVT Ltd.
Ultra Marine Kiri (Cambodia) Co. Ltd	Zhong-Xin Industry Investment Cambodia Co.
Kampong Chhnang	ODDOR MEAN CHEY
Meas Sopheap Co. Ltd.	Angkor Wat Cement Ltd.
KAMPOT	Cambodia Mineral Development Co. Ltd.
Cement Cambodia Chakrey Ting Co. Ltd.	Neoneer
Kampot Cement Co. Ltd.	Ratanak Stone Cambodia Development Co. Ltd.
Khaou Chuly Development Co. Ltd. & Tong Yang Cement Corporation	PAILIN
Pheapimex Group - Phnom Kampong trach	Sonuba Cham Industries Co. Ltd.
Thai Boon Roong Cement Co. Ltd.	PREAH VIHEAR
Unite International (Cambodia) Foreign Investment Group Co. Ltd.	Chhong Kor Chhean Pean Co. Ltd.
KOH KONG	Delcom Cambodia Pty. Ltd.
Samnang Rea Thbong Thmor Co. Ltd.	Ratanak Stone Cambodia Development Co. Ltd.
KOMPONG CHAM	Titan Mineral Group Co. Ltd.
Sun Trading Co. Ltd.	PURSAT
Kompong Speu	Southern Mining Co. Ltd.
Future Environment	RATANAKIRI
T.S.S.M Group Co. Ltd.	Cambo Cana Kiri Development Ltd.
KOMPONG THOM	Cambodia International Mining Group (CIMG - China)
NGOV PET	Indochine Resources Ltd.
Vannvymex Co. Ltd.	Liberty Mining International Pty. Ltd.
KRATIE	Rattanak Chhorpoan (Cambodia) Ltd.
Cambodia International Mining Group	Seoul Digem Cambodia Co. Ltd.
Chhong Kor Chhean Pean Co. Ltd.	Southern Gold (Cambodia) Ltd., Greystroke Ltd.
Leang Samean Quarry	Summer Gold Investment Pty. Ltd.
TTY Rithy Mexco Co. Ltd.	Transol Mining And Exploration Company Pty. Ltd.
Zhong Xin Industrial Co. Ltd.	Ultra Marine Kiri (Cambodia) Ltd.
MONDULKIRI	SIEM REAP
Anging Cambodia Investment Company Co. Ltd.	Chea Ravy Quarry
Antrong EL	Meas Narithy Quarry
Bhp Billiton World Exploration Inc and Mitsubishi Corporation	Teng Mab Quarry
CAMBO CANAKIRI Development Ltd.	SIHANOUK VILLE
Cambodia Hai Lan Mineral Company Limited	TKS International Co. Ltd.
Chin Siv Nginh CSN Cambodia Import Export	Va Ly Heng
China Forwin International Investment Phnom Penh Mining Co. Ltd.	STUNG TRENG
D&Z Investment Co. Ltd.	Mong Good Luck Mining Co. Ltd.
Gold Metal Group Co. Ltd.	Ta Yi Co. Ltd.
Moeung Sok	Try Pheap Co. Ltd.
Oksan Cambodia Inc.	Titan Mineral Group Co. Ltd.

Pollutions Caused by Cement Factories in Korea

Kim Young Ran

Korea Federation for Environmental Movement (KFEM)

One of Korea's mineral resources is limestone. It is one of Korea's projects to develop its limestone and cement production. Korea stands sixth in the world with a total cement production of 51 million tonnes in the year 2000.

It is particularly in the mountain range of Baekdu where limestone mining and cement plants are concentrated. The mining activity has destroyed the mountains.

The damage that the mining activities have caused is extensive. Most mining companies ignore the landfill of mined-out areas. Reforestation efforts are not in good condition. Underground water is disturbed and water sources are polluted. Various types of pollution are caused by the cement manufacturing processes. These include emissions of airborne pollution in the form of dust, gases, noise and vibration when operating machinery and during blasting in quarries, consumption of large quantities of fuel and release of CO₂ during manufacture. The contamination of air, soil, water and the cement products with the heavy metals is also caused by the recycling of industrial waste done simultaneously in the cement kiln. This is affecting the health of the local people in various ways.

Cement Production in Korea

(unit: 10,000 tons)

Year	Production	Consumption			
		Domestic Demand	Export	Import	Total
1975	1,013	844	175	-	1,090
1985	2,050	1,898	149	-	2,047
1990	3,358	3,390	156	210	3,756
1991	3,834	4,419	123	707	5,249
1992	4,265	4,666	105	555	5,326
1993	4,689	4,668	149	112	4,929
1994	5,164	5,267	110	232	5,609
1995	5,513	5,650	97	208	5,955
1996	5,726	6,001	78	354	6,433
1997	5,980	6,175	62	299	6,536
1998	4,609	4,462	124	18	4,604
1999	4,816	4,472	366	14	4,852
2000	5,126	4,800	395	52	5,247

Recycling Status of Cement Factory Waste

Unit: kilotons

		1999	2000	2001	2002
Clinker Materials	CLAY	1,298	1,097	1,031	1,105
	LIGHT STONE				
	FLY ASH	816	929	945	1,121
	SLUDGE	36	156	239	178
	CINDER	11	102	117	111
IRON	STEEL SLAG	484	461	702	693
	NONFERROUS METALS	536	501	326	402
SILICON	WASTE MOIDING SAND	67	117	180	302
OTHERS		185	278	220	310
Fuels	P/Cokes	227	222	245	241
	WASTE TIRES, RUBBER	63	77	139	230
	WDF (WASTE OIL, REFINED OIL)	27	35	71	97
	OTHERS	6	5	15	28
Additives	BLAST FURNACE SLAG	3,890	5,080	4,821	5,224
	FLY ASH & CINDER	132	122	95	82
	OTHERS	282	64	55	63
Congelation Delay Materials	DESULFURISED GYPSUM	351	529	613	662
	NEUTRALISED GYPSUM	-	66	187	252
	OTHERS (Titanic Gypsum)	27	52	49	58
GRAND TOTAL		8,438	9,893	10,050	11,159

Cement Manufacturing Effect on the Environment

The cement industry is a major source of multiple air toxins, among them dioxins and dioxin-like chemicals, mercury, carbon monoxide, particulate matter and greenhouse gas emissions.

The cement manufacturing process is as follows:

1. Mixed Material Manufacturing Process which involves the mixing of raw materials, drying, grinding, blending, and storing process.
2. Clinker Production Process which involves heating the mixed materials with the temperatures of 1400-1450 °C, breaking down, sintering, and cooling process.
3. Cement Production Process which involves the adding of gypsum to clinker, grinding, and packing process.

Carbon dioxide is emitted from the calcination process of limestone, combustion of fuels in the kiln, as well as from power generation. Especially, the production of clinker, the hard substance made through a complex succession of chemical reactions by heating the raw mixture in the kiln, is the source of toxic pollutants such as dioxins.

Moreover, “co-processing” of the industrial waste such as sludge, metal slag, waste tires, waste oil, etc. in the cement kiln is also done during the cement production. This is a way of recycling industrial waste, and the processed waste is used as part of fuel or materials for cement production. This greatly contributes to the toxic gas emission from the cement plants without adequate prevention equipment. The various toxic substances contained in industrial waste affect cement quality and its manufacturing process.

The emission of some toxic substances can be reduced by improving the mechanism of the process and equipment. Some industrialised countries have developed regulations to restrict the emission of those toxic gases to produce clean and safe cement. However, in Korea, the standard for those toxic substances released from the cement plants is not strict enough to protect the environment.

Overall, with alternative safer and cleaner energy and efficient manufacturing, CO₂ generation can be minimum 0.7 kg per kg cement, and maximum twice this amount. The thrust of innovation for the future is to reduce CO₂ emission from the first and second manufacturing processes by modifying the chemistry of cement and recycled wastes and adopting more efficient technology.

Heavy Metal Contamination of Area Surrounding Cement Factories

Korean Broadcasting System (KBS) in Cheongju city requested a cement factory and the local government to analyse the cement particulates emanating from the cement factory in the surrounding area. The request, however, had not been followed through either by the local government or the factory and instead the research was taken up by research organisations with support from NGOs. In the result of the analysis, some heavy metals including iron, lead, zinc, copper and chromium were detected.

The KBS also requested to analyse the hair of 196 people in total (176 residents around cement factories in Yeongwol, Kangwon province and in Danyang, Chungbuk province, and 20 residents in big cities including Seoul). The result showed heavy metals in the hair of the residents around the cement factories are 1-2 times to 15 times higher than that of the city residents.

The residents around the cement factories argued that the above result indicated the hazardous heavy metals in various wastes used in cement kilns have been spread through the factory chimneys. As a result, they also argued, they were seriously contaminated by the harmful heavy metals. The residents charged the cement factory and claimed compensation for the damages.

Since it was promoted to recycle the industrial waste in cement kilns in 1999, problems caused by the cement factories, such as the impact of harmful heavy metals on the health of the local people through contaminated cement products, dust in the surrounding area, air pollution in wider areas were continually raised. It is essential to improve the waste recycling management system, tighten quality management, and disclose the information of cement products by pursuing the revision of related laws in order to improve the environment around cement factories.

Problems of Legal Standards and Standard Settings

Standard of air emission for cement kilns has been strengthened in order to reduce the pollution in surrounding areas. Chlorine (Cl) and mercury (Hg) were among the toxic substances that were already regulated. Adding to them, the limit of nitrogen oxides (NOx) and dust have become stricter. Currently, five toxic substances, dust, NOx, sulphur oxides (SOx), Hg and Cl emitted from cement factory's chimneys are more strictly regulated.

According to the examination of particulates in the air of the surrounding area of a cement factory, heavy metals were detected in peoples' hair.

Moreover, much hazardous heavy metals were detected in particulates taken from the cement factory, including chromium, which is a carcinogenic contained in wastes.

There is no way to control heavy metals under present legal standards in Korea.

Lack of standardised method to examine the cement products contributes to the confusion in setting limits and monitoring the cement factories. There is no common criterion or method for analysis standardised worldwide for the heavy metal contained in cement products. Hence, each analysis done by each organisation is based on different criteria and methods, which makes it difficult to assess the results.

The following actions are needed to be taken as soon as possible:

- Regulate the standards of the facilities and equipment in cement industry and other industries which cause similar effects on the environment such as the incineration business.

- Establish and operate a laboratory to analyse gas emissions from the cement factories and the toxicity of the cement.
- Establish criteria and regulate the waste recycled in the cement kiln as well as handling and management of the waste.
- Set the guidelines and the standard of management of highly toxic substances such as hexavalent chrome (Cr6+). Companies must be required to have their management scheme. For example, cement companies in Japan operate with voluntary management criterion of Cr6+ at under 20mg/kg.

People's Demand for Improving the Situation

Various measures to improve the situation have been proposed by residents surrounding the factories. They have been demanding that the government and the cement industry should invest in conducting environmental assessments regularly and frequently. It has been also proposed to implement the revised law strictly, impose a regional tax for the incineration of the daily industrial waste, and contrive a protection mechanism aside from the measures already taken by the central government.

Residents are particularly concerned on the lack of disclosure of information with respect to safety of cement products. The examinations should be conducted and their results must be open to the public in terms of the items and amount of waste, including the imported waste, which is recycled in the kiln into fuel, ingredients of the cement and others, dangerous materials including lead, copper, arsenic, mercury, cadmium and particularly Cr6+, remaining in the kiln as well as in the emission. The results must be disclosed to the public and followed up by taking adequate measures.

In order to improve the access to information, the government and the cement companies should hold tripartite consultations with the relevant local and central governmental agencies, cement companies and the local people.

The cement companies should also be proactive in revising their plans, if necessary, to take better measures to protect the environment, prevent industrial accidents, and receive requests from the residents and the public.

Concretely, the residents near the cement factories in three cities, Yongwol, Donghae and Samchuck in Kangwon province have been demanding that the cement factories and the cement industry as a whole should take up those recommendations and eliminate the pollution caused by the cement manufacturing by committing themselves to an environmentally friendly industry.

The Ministry of Environment has created a committee to address those issues which consists of government officials, experts, community leaders, cement companies, and NGOs including Korea Federation for Environmental Movement (KFEM).

The committee has made a plan to reinforce the standards of the emission in the cement kilns and to conduct an investigation to identify the impact on the health of

the residents. In the current economic recession in Korea in relation to the global economic downturn, however, the negotiation on the compensation to be provided by the companies or government is not easy. Citizens and KFEM will continue to insist that it is not acceptable to sacrifice health and the environment in exchange for profits of cement companies.

Mining and Food Sovereignty in Mongolia

Batkhishig Badarch

Centre for Human Rights and Development (CHRD)

Brief Overview of Mining Situation in Mongolia

Mongolia is a country with abundant natural resources such as gold, silver and copper. Since 1997, the government has implemented the “Gold” national mining programme, and by 2005, mineral exploration licenses had been granted over almost 50 percent of the whole area covered by this programme, particularly in the Gobi (desert) provinces.

Since the implementation of this state support policy, in 2007, the mining sector productions were over 30 percent of Mongolia’s gross domestic product (GDP), 70.3 percent of total industry products and 78.4 percent of export income. Over the past three years, the state revenue from the mining sector has increased three-fold, and the income from naphtha (oil) sector has increased ten-fold.

As result of the previous and the recent intensive mineral explorations big deposits of copper, gold, and coal have been discovered in the country. Many mining transnationals like Rio Tinto, PHB, etc. are interested in those deposits. The Mongolian government is working to create a positive legal environment to support increased foreign investment in the mining sector. The Mongolian parliament and government are discussing a proposed amendment to the mineral law that would give the Mongolian government a minimum 51 percent share in profits of all strategic mining deposits, such as Oyu Tolgoi mining project which is to be operated by Rio Tinto. Currently, some of these investment agreements relating to strategic mining deposits are being discussed by multi-stakeholders such as the government, mining companies and NGOs. Local environmental groups, civil movements and human rights NGOs have had a significant role in that process.

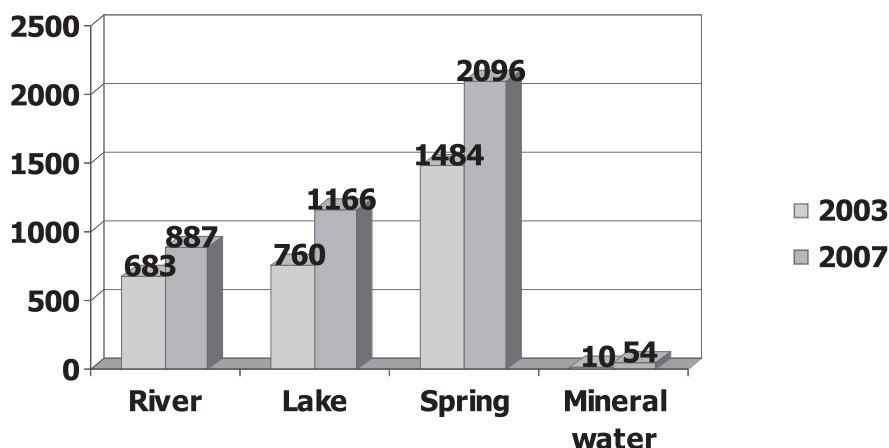
As of May 2008, 4,644 mineral licenses are currently valid and 1,060 of these are exploitation licenses (22.8 percent of total licenses) and 3,584 are exploration licenses. Within the last half year, the number of mining licenses has increased by 44 from 1,016. Mineral licenses have been granted over 43.81 million hectares of land, which is equal to 28 percent of the total area of Mongolia. While the dimension of the area subject to mineral licenses (exploitation and exploration) was decreased from 50 percent to 27 percent of the total area of Mongolia by 2007, the actual size of mining areas did not decrease, but in fact increased.¹

It is a positive situation that the mining industry and its influence on the GDP and state budget has been increasing; however, mining activities, especially exploitation (rather than

¹ Report of the agency of Mineral and Naphtha, Newspaper “Daily News”, 312, 29 December, 2007.

exploration) are also negatively affecting the natural environment and the health of people, livestock and animals.

Comparison of dried surface water resources in 2003 and 2007



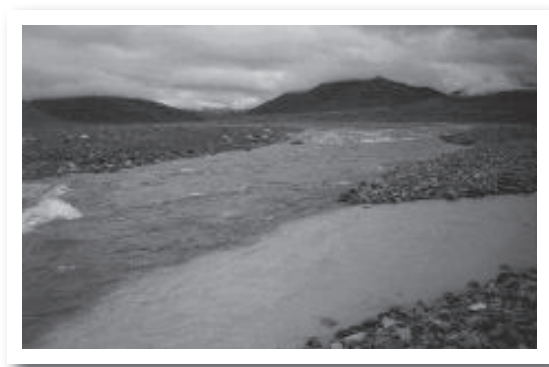
Companies frequently fail to undertake environmental rehabilitation after gold mining activities, safely disposing of and recycling toxic substances such as mercury and cyanide. This has caused serious pollution in pastureland, winter and spring camps, and rivers. Many streams and rivers decreased in volume of water or completely dried up.

The pollution caused serious health problems for people and sometimes death of livestock. Mostly, contaminated water of rivers or springs is the source of drinking water for both people and livestock. The most serious case was caused by the leakage of waste water with mercury and cyanide used for extraction of gold operated by one foreign invested mining company in Khongor *soum* (district) of Darkhan province in May 2007. This incident resulted in pollution of drinking water wells and soil of the surrounding areas of the mining company. This caused various health problems for local people and death for some livestock. Currently, the local governor and the mining company are being investigated in accordance with the Criminal Code. Those acts violate the environmental law as well as the Constitution which guarantees the right of people to live in a healthy environment and be protected from environmental imbalances.

This situation worsened the already hard life of herders in Mongolia. Over 90 percent are small-scale herders and/or farmers without adequate subsidies and loan scheme provided by the government. It has also caused negative impact on agriculture and violated people's food sovereignty. Without positive measures taken by the government to protect domestic agricultural producers, it is difficult for small-scale local farmers to compete with cheaper imported agricultural products, which consists of 70-80 percent of the entire consumption in Mongolia.

People's Movement

Since 2004, local citizen's movements have been established for protecting the environment and the rights of local citizens. Currently, 11 civil movements have been formed, and a "Mongolian homeland" coalition established. Women leaders are common in these movements. The main direction of the movement is to ensure that mining companies act responsibly. "Responsible mining" means that mining companies must work in accordance with environmental and other related laws, and undertake proper environmental rehabilitation.



In this context, civil movements have been working together as members of a new NGO established in 2008, called "The Responsible Mining Initiative for Sustainable Development".

To create responsible mining in Mongolia, local civil movements have been working to obtain legal advice from human rights NGOs, on matters such as making claims in court against mining companies, and making complaints about failures by companies to undertake comprehensive rehabilitation.

In September 2007, 16 NGOs dealing with food and mining issues, together with citizens joined and established the "People's Coalition for Food Sovereignty" (Food Coalition) with the support of Pesticide Action Network Asia and the Pacific (PAN AP) and APWLD.

The Food Coalition has undertaken the following work:

- Prepared and provided suggestions and proposals about environmental rehabilitation and food sovereignty issues to be considered in the Millennium Development Goals Completion policy paper, the Draft Law on Food, and the election platforms of political parties for the June 2008 election;
- Analysed current state policy, programmes and laws on food, and appealed to the public in relation to the concept of food sovereignty;
- Conducted trainings on food sovereignty for political parties;
- Translated training manuals and books on food sovereignty.

Further, the Food Coalition is working to include its proposal on food within the newly elected government's programme, and to prepare representatives to work in local areas on food sovereignty issues.

The Philippines

Indigenous Women and Mining

Emi B. Carreon

Innabuyog, regional alliance of indigenous women's organisations in the Cordillera Region

Background and Context

The Philippines' total population is approximately 90 million, with up to 15% of the population belong to more than 90 indigenous peoples' groups. The major indigenous peoples' groups are the Igorots in the Cordillera region, the Aetas in Central Luzon, the Caraballo groups in the Cagayan region, the Mangyans and the Dumagats in the Southern Tagalog region, Palawan groups in Palawan, the Atis and the Tumanduks in Visayas and the Lumads in Mindanao.

They are historically distinct from the majority of Filipinos because of their resistance to Spanish colonisation. This resistance enabled them to continue and develop much of their indigenous socio-economic, political and cultural practices and identities, a result of their defense and development of their ancestral lands and territories which is the very basis of their life. Colonial subjugation and oppression and eventually the impositions of the Philippine governments are causing varying degrees of disintegration to indigenous ways of life. In fact, ancestral lands of the indigenous peoples have always been regarded by the state and corporations as a resource base. This is a big conflict in the general worldview of indigenous peoples living in harmony with the land and natural resources over a capitalist worldview of monopoly, over-consuming, privatising and using every piece of the land and resources to become objects for profit. It is in this conflict situation that indigenous peoples are made to disintegrate or persist. For struggling indigenous peoples like us, we choose to persist and exist.

The Philippines is rich in natural resources. It is one of the world's producers of copper, nickel, chrome, zinc, gold and silver. Potential mineral resources are estimated at 7.1 metric tons of metallic minerals and 51 metric tons of non-metallic minerals. Copper deposits amount to 4.8 billion tons and 110,000 tons of gold. The mineral estimated value is US\$840 billion which is equivalent to 10 times the Philippines' gross domestic product and 14-17 times the country's foreign debts.

On the other hand, the Philippines has very high geo-hazard risks. Typhoons, earthquakes, volcanoes and landslides are common. A major portion of the country is classified as natural disaster hotspots. Much of its mineral resources lay either in areas of rich biodiversity, in geo-hazard zones or within the ancestral domain of the indigenous peoples. This makes large mining a big hazard to the country's fragile environment and ecosystem.



Liberalisation of the Mining Industry

The Philippine government contends that the development of the mining industry is a big economic development for the country. Hence, in 1995, the government, with a strong push from the World Bank for mining liberalisation, enacted the Philippine Mining Act of 1995. The law was a total sell-out of the country's mineral resources, an outright violation of the country's patrimony and a trampling of indigenous peoples' rights to land and self-determination. It allowed full rights to foreign mining transnational corporations including 100% ownership, repatriation of profits, tax holidays, leaving nothing to the peasants, indigenous peoples and poor Filipinos.

More than a decade since the passage of the mining law, the country's economy does not show any significant development. Greater economic contributions still come from agriculture, fisheries and forestry, the very resources that mining destroys significantly. The present administration of Gloria Macapagal-Arroyo, who herself authored the mining law when she was still a member of the Philippine Senate, has pursued a policy of enabling the fullest liberalisation of mining in the country. She signed Executive Order 270 to harmonise and synchronise the requirements and procedures in order to facilitate the inflows of investments into the mining industry. Procedures were fast-tracked. The provision of free, prior and informed consent in the Indigenous People's Rights Act is always violated. The Mineral Action Plan further undermined weak environmental regulations and safeguards and the social acceptability provisions.



The Mineral Action Plan has identified 23 mining priority projects which include 11 copper projects, six gold projects, five nickel projects and one cement project. Most of the identified 23 priority projects include expansion of existing mining operation such as the Lepanto Mining Corporation through the Victoria Gold project in Mankayan, Benguet in the Cordillera region and the revival of dormant mining claims and operations such as the Batong Buhay Copper project in the province of Kalinga and the Itogon-Suyoc mines in Benguet, both in the Cordillera region. Mining corporations now own 66% of the Cordillera land area. Major players include UK's Anglo-American, Canada's Olympus Pacific Minerals, USA's Phelps Dodge, to name a few.



The Canadian Toronto Ventures Inc. continues to operate in Mt. Canatuan, a sacred ground for the Subanon indigenous peoples in Zamboanga del Norte, Mindanao (southern part of the Philippines), despite mass protests locally, nationally and even internationally. The Tampakan Copper project in South Cotabato, also in Mindanao, with an application of a financial and technical assistance agreement (FTAA) covering 31,599.63 hectares for gold, silver and copper, is a classic example of the implementation of the FTAA provisions of the Mining Act violating the Philippine Constitution concerning ownership of mineral resources. The B'laan indigenous peoples in South Cotabato filed a case against the Western Mining Corporation which eventually changed to the Sagittarius Mines Inc. while the case was going on. The Supreme Court ruled in favour of the company.



The Didipio Copper-Gold project in Barangay Didipio, Kasibu, Nueva Vizcaya covers 21,465 hectares for copper and gold. The area is inhabited by different indigenous peoples who are original inhabitants or have migrated to the place. Pickets and barricades were organised by the local people. They have filed petitions, lobbied to the government for the cancellation of the application. Women have been in the forefront of the protests. Up to now, the local people continue to experience harassment, fabrication of charges, and threats to their lives.

Poor Environmental Record

Mining in the Philippines has a very poor environmental record. But the Philippine government always comes to the mining companies' defence. The United Nations Environmental Programme reveals that the Philippines is among the worst countries in the world on tailing dams failure, major cases of which are Lafayette tailings dam spill, and the Lepanto Mining Company tailings dam collapse. Modern mining in the Philippines typically consists of open-pit mining of low grades ore for copper and gold, and strip mining for nickel. This involves flattening of mountaintops, creating huge craters and producing vast amount of waste in the form of tailings.

Impacts of Mining on Women and Indigenous Peoples

While mining has negative impacts on those who live in the mining communities, in particular there are distinctive impacts for indigenous peoples. Generally, mining operations, especially large-scale mining operations, have the following socio-economic, health and environmental impacts:

1. Appropriation of lands of indigenous peoples which results in massive displacement of peoples.
2. Large-scale destruction of lands, forests, agricultural lands, which include erosions, siltation, deforestation, desertification and flattening of mountains.
3. Pollution of soils and rivers with toxic chemicals used in the extraction and processing of ores. Air pollution occurs from continuous bulldozing of the land and transport of soil and mineral ores.
4. Frequent occurrences of mining accidents ranging from collapse of underground tunnels, bursting or overflowing of mine tailings dams, which have caused the further pollution of lands, rivers, and the ocean, leading to the decrease of marine biodiversity, killing of plants, animals and even human beings.
5. The mineworkers, the people in the mining communities, and those who are at the receiving end of toxic mine-tailings face serious health problems. These range from skin diseases, respiratory diseases including tuberculosis, silicosis, asbestosis, gastro-intestinal diseases, cancers, mental fatigue and problems in reproductive health such as spontaneous abortion, malformed babies.
6. Disintegration of indigenous society and culture, such as significant destruction of traditional values, customs, which have been key in sustaining community, tribal, clan, and family solidarity and unity as indigenous peoples. The incidents of alcoholism, drug

addiction, prostitution, gambling, incest, wife-swapping, and infidelity, have been increasing in and around many mining communities. Number of cases of domestic violence against women is also increasing.

7. The subsistence economies which have nurtured generations of indigenous peoples have been eroded and replaced with the cash economy or the market-based economies in which indigenous peoples have no control at all. This led to the marginalisation of women as food producers in the subsistence economy. Their traditional roles as gatherers, water providers, care givers and nurturers are very much affected.

8. Increasing militarisation in and around many mining communities: Mining companies employ armed security guards and harass local protestors. Cases of extrajudicial killings of leaders of local, indigenous protest groups have not been duly investigated. Indigenous women in Abra and Mindanao are vulnerable to and have been raped, sexually harassed and been victims of other forms of physical, psychological and sexual violence.

9. Increase of migration from other rural communities into the mining communities seeking for jobs at the mine or small businesses around the mine. Migration has affected both newcomers and the receiving locals in various negative ways.

10. Increasing unemployment and underemployment. It is ironical that even with the increase of mining companies entering the country, the rate of employment is not increasing nor the labour rights and welfare improving. The Central Bank of the Philippines reported in 2003 that large-scale mining employed 105,000 while small-scale mining employed 300,000. Government data also says that in 2001 and 2003, 0.3% was employed in large mining and quarrying while 32.5% and 32.2% respectively were employed in agriculture and fisheries.¹

Indigenous Women's Struggle against Mining

Despite of all these negative impacts of mining, indigenous women are on the forefront in the struggle against large and destructive corporate mining in their communities all over the Philippines.

In the case of the community struggle of Itogon against the open-pit mining of Benguet Corporation, women played a great role and contribution in preventing the expansion of the open-pit mines. The women formed human barricades, together with their children and husbands. They opted for mass arrests if one or two of them were arrested. In recent years, the Itogon women also actively protested against the bulk water project of the Benguet Corporation, a business that the mining company is planning to further monopolise the remaining natural resources of the area.

A protest group against mining, the Save the Apayao People's Organisation in Conner, Apayao in the Cordillera has strong women leaders resisting the entry of two mining giants in their communities, UK's Anglo-American and Australia's Oxiana Gold. One

¹ National Statistics Office, Republic of the Philippines (NSO), www.census.gov.ph

woman leader is constantly receiving threats, at the height of which she was forced to isolate herself in her home, forcing her child to stop schooling as she could no longer bring him to school. She has brought the Conner mining issues to different forums provided by APWLD and even in a meeting with Anglo-American's general managers annual meeting in London in April 2007.

More importantly, the indigenous women continue to strengthen their position in defending their right to ancestral lands against destructive mining projects and other forms of development aggression. We continue to assert our right to self-determination and build stronger unity among us and with other affected Filipino people. As part of our right to self-determination, we pursue our belief that development should be within the framework of our interests and aspirations for economic, political and social uplift. Furthermore, to sustain and gain more support in advancing our indigenous systems, integrity and identity, efforts to consolidate our collective actions has to be continuously strengthened and advanced. These include: information dissemination; sharing of experiences on different forms and levels of people's struggles on the mining issue and alternative ways to large-scale mining; development of analytical tools on the trend of the global mining industry; solidarity-building among women and among communities affected by the mining operations; alliance building with the other marginalised sectors of society in regards to human rights issues; advocacy and campaigning to increase awareness on the mining issue.

The Philippines

The Case of SOCCSKSARGEN Region, Mindanao

Lorna Mora

BAI, National Network of Indigenous Women's Organisations in the Philippines

The Soccsargen region in the island of Mindanao, Philippines, is composed of the following provinces: South Cotabato, Sultan Kudarat, Sarangani Province, General Santos City, North Cotabato (Makilala, M'lang and Tulunan) and Davao del Sur.

The area is rich in agricultural products such as rice, corn, vegetables and fruits, and the total production is more than the local consumption. However, the surplus of the production versus consumption is no longer at the hands of the farmers – most of them are produced and exploited by agricultural transnational corporations.

Agricultural plantations are expanding at a rapid pace every year. This is done through land rental, growership, partnership, cooperatives and other schemes. The target areas are mostly lowlands and hilly portions which are planted to food crops. In any of the schemes, it is always the poor farmer who is at a disadvantage.

The local people are all the more threatened by the entry of mining in the region. Most of their land has already been taken away from the local farmers by the agribusiness corporations. Currently six mining companies have applied for mining licenses in the region.

List of Mining Applications in the Region

	Area	Mining Company
1	South Cotabato/Sultan Kudarat	1. Sagittarius Mines, Inc (SMI) (30,000 has. plus)
2	Sarangani Province	1. Tandem Exploration and Mining Corp (16,000 has. plus) 2. Macroasia Mining Corporation (16,199 has. plus) 3. Perfectwood Mining (7,133 has. plus)
3	Davao Del Sur	1. Hillcrest (SMI)

Once those mining companies are granted mining operation licenses, the following negative impacts on the surrounding natural environment are predicted to occur.

- Taplan River that irrigates the rice farms of South Cotabato and Sultan Kudarat, and a source of water in Buluan Lake, will be polluted;
- Mal River that irrigates the rice farms in Davao del Sur will be polluted. As this drains in the Davao gulf, it will also affect the marine life of the gulf, which is the livelihood of thousands of fisherfolk;
- Buayan River that irrigates the rice fields in General Santos and Sarangani Province will be polluted. Since this will drain at Sarangani Bay, the fishing industry around the bay will be affected;
- Farmers or agricultural producers, both in the upland and in the lowland will suffer primarily from the impact of mining such as decline in production through depletion and contamination of water and soil, contamination of drinking water, health hazards, etc.;
- Deforestation and destruction of mountains which would likely cause floods, siltation and landslides. Reducing forest will further contribute to increase in temperature, and global warming.

Militarisation: The Government's Response to People's Resistance

The deployment of several military units in the Soccsargen region indicates that the government is attempting to secure its mining projects and other corporate interests in the region by force. Currently, the 72nd Infantry Battalion of the Philippine Army, along with the 66th, 39th and the 27th, are deployed. Also the reconnaissance and companies of paramilitary forces representing the Civilian Armed Forces Geographical Unit or CAFGU are deployed. The heavy military presence is resulting in various human rights violations which include cases of torture, psychological disturbance, destruction and divestment of properties such as domestic animals and crops, and violence against women including rape.

Indigenous Women Taking Part in Community Actions

Indigenous women are playing an important role in the actions to defend their land and resources. The women have established their organisations at a provincial level. These join with wider indigenous and peasant organisations and together, they launch information and education to raise awareness of women and communities on the various projects which are enforced in their territories, conduct research and documentation on the mining projects and cases where their individual and collective rights are violated. More and more indigenous and peasant women are participating vigorously in the community campaigns and mobilisations. This is a positive indication of assertion of their land rights and self-determination as indigenous peoples.

The Philippines

Resisting Development Aggression: Mining and Militarisation in Mindanao, Philippines

Norma Capuyan

Kalumaran (Strength of the Indigenous People of Mindanao), and
BAI, National Network of Indigenous Women's Organisations

Two girls aged 13 and 14 years were walking to school in a mountainous, rural village in Malapatan, Sarangani Province in Mindanao. They were Blaán, an indigenous group in southern Mindanao. As they passed by the military detachment of the 66th Infantry Battalion, they were called into the camp by the soldiers. Intimidated and afraid, the girls went into the camp. There they were gang raped by the soldiers inside the camp. Prevented by the soldiers from hiking down to the town centre to seek assistance for the crime committed against them, the girls eventually accepted a payment in exchange for their word that they would not lodge a formal complaint.¹

These girls' story is not unlike the stories of many indigenous women in Mindanao whose ancestral domains contain an abundance of mineral, water, and timber resources. Militarisation is common in indigenous communities which are nestled on mountain peaks and valleys. Our history of resistance to colonisation and our determination to defend our ancestral domains against the encroachment of transnational mining and agri-business firms has made us targets of state terrorism.

While the military declares publicly that its operations are part of counter-insurgency efforts, our experience has shown that military operations are essentially 'clearing operations' to stifle local dissent to large-scale 'development' projects and open the way for further exploration of mineral sites.

In February of this year, President Gloria Macapagal-Arroyo announced the formation of the Investment Defense Force (IDF) - a military unit established to be a "protective shield" for power, plantation, and mineral assets in rural areas. Pres. Arroyo indicated that investment assets in Mindanao "that need more weapons and personnel as protective shields" have already been identified. The IDF is in addition to already existing Special Citizens Armed Forces Geographical Units (CAFGU) Active Auxillary established to provide security for private companies.

As the national government of the Philippines continues to push large-scale mining by foreign firms as the key to national development, the ancestral domains of indigenous peoples are increasingly under threat of encroachment. Mindanao is host to ten of twenty-four priority mining sites identified by the national government. These ten areas

¹ This incident took place during the first week of January 2008. We have only received initial data about the incident from residents, as human rights workers have been unable to enter the area due to heavy militarisation.

fall within the ancestral domain territories of Mindanao's eighteen major indigenous ethno-linguistic groups.

Related to the girls' story above, twenty-four mining applications were submitted in 2007 to the Department of Environment and Natural Resources for mining rights to areas within their home province of Sarangani.²

In November and December 2007, nearly 2,200 individuals, the majority of whom are indigenous women and children of the Manobo tribe in Surigao del Sur, walked twenty kilometres to escape the military takeover of their communities. They persevered for nearly one month in crowded and unsanitary evacuation centres in schools and a public gym in the municipality of Lianga. One woman gave birth in the evacuation centre, amidst the spreading diarrhea and tuberculosis.³

When residents returned to their communities in late December, they found their homes and schools ransacked, their animals missing, and the supplies in their cooperative stores consumed. Their farms were overgrown with weeds.

The area surrounding the displaced communities is known as Andap Valley, a valley rich in coal - one of the largest known coal reserves in the Philippines. Attempts were made in the 1970s and '80s to mine this area, but due to strong resistance from the indigenous population, the mining companies withdrew. In 2004, the Benguet Corporation renewed its efforts to mine coal in Andap Valley. It was in April of 2005 that massive militarisation and displacements took place in the area.⁴

In Talaingod, Davao del Norte, a total of 1,098 documented Ata-Manabo were displaced due to aerial raids and foot patrols in early January 2008. Soldiers of the 73rd Infantry Battalion once again turned villages of Talaingod into a base of operation. Fortunately, no women were raped during the course of this operation; however, two women were offered money in exchange for sex, and another woman sexually assaulted as a soldier put his hand up her skirt. Two women also gave birth prematurely while fleeing the military operations.⁵

Children and adults of Talaingod suffer from trauma due to repeated militarisation in their ancestral domains. The Ata-Manabo has a strong history of resistance to the entrance of logging firms and other 'development projects'. The most recent militarisation took place just before the inauguration of a major inter-province road that was attended by President Gloria Macapagal-Arroyo.⁶ Mt. Apo Mining and MC Welt also have mining interests in the municipality.

² Espejo, Edwin G. "49 firms file 64 mining applications in Sultan Kudarat, Sarangani area." *Mindanews*. January 30, 2008. http://www.mindanews.com/index.php?option=com_content&task=view&id=3738&Itemid=160

³ Karapatan-Caraga. "It's Happening Again! 2007 Surigao Sur Evacuation".

⁴ *Ibid.*

⁵ Solidarity Action Group for Indigenous Peoples, "A Statement Demanding Justice & Accountability for the Human Rights Violations Victims in Talaingod, Davao Del Norte". Based on the Interfaith Mercy Mission held from February 22-24, 2008 in Sitio Dulyan, Brgy, Palma Gil, Talaingod Davao Del Norte.

⁶ *Ibid.*

Most recently, in Davao Oriental, three hundred thirty-three families were displaced in Baganga and another eighty families in Cateel. The town of Boston has been declared in “a state of manmade calamity” after bombing raids took place against the civilian populace on January 30. This area is part of the ancestral domain of the Mandaya tribe, and is home to the Pujada Nickel Project of BHP Billiton Corporation, the world’s largest mining corporation. The area also hosts the Road 5 M Project, operated by the Boston Mineral Mining Corporation and Omega Gold Mining Company. More mining applications in the province are awaiting approval.

Last December 2007, more than one hundred Mandaya lumads (indigenous people) and farmers barricaded the Omega Gold Mining Company and drilling sites to protest against the mining operations in their lands. Weeks later, they were showered with bombs.

April 2008 ushered in heavy military operations in the province of Compostela Valley, spurring the displacement of 104 families from nine communities. Compostela Valley is known as the Davao region’s gold capital and is home to mining priority projects.

The militarisation of indigenous communities to force the entrance of large-scale development projects has especially impacted indigenous women. Lumads are already discriminated against in Philippine society. We are seen as second-class citizens, or in the words of one Manobo elder outraged by military abuses, “They think we are monkeys!” The chauvinism of the male dominant culture makes it even more difficult to have our rights recognised by the state and to receive necessary social assistance.

When our communities are militarised, we indigenous women not only struggle with the fear and abuse that comes with militarisation of the hinterlands due to mining interests, but we suffer a loss in livelihood as well. A militarised environment makes it difficult for us to access farms due to displacement, checkpoints, curfews, and other types of abuses. Due to influences brought by foreign companies, government soldiers, and others, the role of women in indigenous communities is now changing more rapidly, disintegrating and evolving into the objectified concept of a woman. The rise of sexual harassment, sexual abuse, and sexual violence is greatly increased due to militarisation.

These violations happen in a climate of impunity. These abuses are most often denied by the military, as well as national and local governments. Blatant connivance of the state and private capital is the essence of development aggression. Our most pressing needs as indigenous women today revolve around this reality. Despite the burden we bear and the abuses we have suffered, we stand prepared to continue to defend our ancestral domain and assert our right to self-determination as indigenous peoples and as women.

Legislative Actions on the Mining Issue in the Philippines

Luzviminda Ilagan
Gabriela Women's Party
House of Representatives

Introduction

Its strategic location within the Pacific “rim of fire” developed the Philippines into a mineral-rich land. Underneath its volcanoes and mountain ranges lie large deposits of metallic and non-metallic minerals. Around nine million hectares of the country's total land area of 30 million hectares are endowed with chromite, chromium, iron, lead, manganese, nickel, silver, bauxite, dolomite, limestone and marble.

But what interested a lot of large local and foreign mining firms are the country's significant deposits of copper and gold. In 2002, the Mines and Geosciences Bureau (MGB) of the Department of Environment and Natural Resources (DENR) estimated the country's gold reserves at 967,180,197 metric tons. Copper was put at 5,301,507,657 metric tons.

The Philippines is second to Indonesia in terms of geological prospect in Southeast Asia and could be the fifth largest mining power in the world, as the country sits on around 20 percent of the world's nickel resources. It is third in gold and fourth in copper deposits in the world.

Mineral reserves are found in almost all provinces of the country. Gold and copper deposits in the Philippines tend to be clustered in certain areas such as the Cordillera, Camarines Norte, Surigao and Davao, but large deposits can also be found in Zambales, Cebu and South Cotabato.



The Philippines' mineral wealth is estimated to be worth between \$840 billion and \$1 trillion: ten times the country's annual gross domestic product (GDP) and 15 times its foreign debt. Its 7,107 islands are so blessed with mineral resources that experts believe that the country is set for industrialisation.

Third century records of the Chinese merchants' interaction with the indigenous peoples of the Philippines shows mining as one of the oldest industries in the country. The people of Benguet, for example, mined gold and copper in exchange for Chinese products.

Small-scale mining was only resorted to during difficult times when there was scarcity of food and other resources. Very simple tools that do not adversely affect people and the environment were used. Pre-colonial period mining benefited whole communities, as proceeds from the sale or exchange of mineral products were used to sustain the people's needs.



The Entry of Large-Scale Mining in the Philippines

The Spaniards, Americans and Japanese knew the mineral potential of the country and engaged in wars in order to take control of its mineral-rich land. The entry of these colonial countries pushed the commercialisation of mining in the Philippines.

The Spanish conquistadores, under the dictum 'god, gold and glory', set the trend for the large-scale mining industry in the country. They introduced the regalian doctrine – an unjust policy which arrogated upon the State ownership of all public lands and empowered the colonisers to own, classify and dispense them regardless of whether they were occupied – in order for them to freely exploit the country's resources.

The Americans allowed mining operations in the Philippines to reach the commercial scale through the passage of the Mining Act of 1905 and later the Mining Act of 1935.

They also introduced more capital and advance technology which rapidly expanded the mining industry. By the end of their relatively short, yet significant occupation, around 40 gold mines had been opened.

In this age of neo-colonialism, gold and other precious minerals continue to be the target of multinational and transnational corporations. They collaborate with big local corporations and bureaucrat capitalists in exploiting the mineral resources of the Philippines and other third world countries for profit. Between the years 1970 and 1980, the world's mining giants raked in huge profits as gold prices soared from \$350.96 per ounce to \$612.46.

The slow production of gold in 1981 forced prices to drop to a low of \$284 per ounce. Copper prices also fell from \$0.99 per ounce to \$0.62.

This phenomenon sounded the alarm for global policy makers like the International Monetary Fund (IMF) and the World Bank (WB) to start restructuring the strategies for continued control over the country's mineral resources. In 1989, the United Nations sponsored the "Seminar on the Mining Industry to the year 2000" to set the groundwork for the Philippine mining industry reform programme.

After a series of conferences, the IMF and WB proposed that the Philippine government liberalise its mining industry. On March 6, 1995, President Fidel Ramos signed into law Republic Act 7942, also known as the Philippine Mining Act.

The Philippine Mining Act of 1995

The Philippine Mining Act, or the "Act Instituting a New System of Mineral Resources Exploration, Development, Utilisation and Conservation", is a policy of the State to remove barriers in the exploration, development, utilisation and processing of the country's mineral-rich land for the benefit of transnational and multinational mining corporations which are granted:

1. A right to repatriate 100 percent of the profits from their mining operations
2. Full control over a maximum of 81,000 hectares of land for a span of up to 50 years.
3. Immunity from forced reclamation of their concession area. (This is to allay fears of foreign investors of expropriation and to give them confidence in wielding full control over their mining area.)
4. Exemption from taxes for a period of up to ten years.



Aside from these, large mining firms are also given a number of auxiliary rights and privileges such as water, timber, easement rights, and the right to possess explosives and to resort to arbitration method in the settling of disputes.

Impact of Mining

According to the Ramos administration, the Philippine Mining Act of 1995 would create employment opportunities, promote industrialisation and enhance national growth.

Thirteen years have passed since the law was implemented but none of these promises were upheld. Instead of upgrading the national economy, large-scale mining activities only intensified poverty in many communities.

The experience of Cebu with Atlas Mining, Itogon with Benguet Mining and Marinduque with Marcopper show that mining does not uplift the life of the workers and the people in host communities. Agusan and Camarines Norte – the provinces that produce the highest amount of minerals in the country – are among the nation's poorest.

The Mining Act does not create jobs for the Filipino people, but rather reduces the number of people employed. Large-scale mining is capital and technology intensive rather than labour intensive, and therefore needs only a small workforce. Moreover, this type of mining operation kills the small-scale mining industry which employs many workers.

Even the WB's Extractive Industry Review has been highly critical of large-scale mining approach as it benefits only the foreign corporations and leaves developing countries and poor communities to carry the burden of its economic, social and environmental costs alone.



Another major concern regarding the large-scale mining is its devastating effects on the environment and the health of people living in and near mining sites.

Mine tailings dumped near the mining areas pollute bodies of water and leak into farmlands.

Three bodies of water in Mindanao – Davao Gulf, Agusan Bay, and Macajalar Bay – were declared pollution hotspots because of presence of mercury, cyanide, heavy metals, other mining wastes and silt. At least three rivers in Zambonga del Sur are deemed dead or dying and the Bigaan river in Cagayan de Oro was found to contain high levels of mercury.

Cyanide and mercury – the chemicals most commonly used to separate minerals from rocks – can cause irritation, skin ulceration, thyroid enlargement, respiratory problems, among others.

Open pit and bulk mining changes the topography of mountains and damages wide areas of forested lands resulting in irreversible environmental degradation. Forest denudation, in turn, triggers flashfloods and climate change.

The large number of casualties to the typhoon “Frank” was blamed on the mining activities. The Western Visayan provinces where hundreds of people were killed by flashfloods are logging and mining areas.

The damage to the environment caused by mining also increases the threat to the country’s long-term food security and the survival of future generations of Filipinos. The destruction of rice fields and forestlands leads to the breakdown of the country’s food sources.

Marcopper: The Biggest Philippine Mining Disaster

Experience has proven the potentially disastrous effects of large-scale mining. On March 24, 1996 – barely a year after the Philippine Mining Act was approved – the mining operations in Marinduque attracted global attention after a significant leak in the waste disposal system of Marcopper Mining Corp. and over 1.6 million cubic metres of mine tailings were discharged into the Makulapnit and Boac rivers. The rush of tailings inundated low-lying areas and isolated five villages with a population of more than 4,000. Residents of about 20 villages were also forced to evacuate such as those of Barangay Hinapula which was buried six feet under muddy flood water.

The United Nations-declared biggest disaster in the history of mining in the Philippines left the 27-kilometre Makulapnit-Boac river system dead. The drinking water residents relied on was contaminated. The fish, shrimp and other food sources were immediately killed. The crops and vegetable gardens were destroyed and the channels to rice fields were clogged.

Residents of affected areas were suspected to be harbouring in their bodies amounts of zinc and copper which are beyond tolerable limits. These poisonous mine wastes caused skin irritation and respiratory problems.

Even before the tragic incident, Marcopper Mining Corp. had been spewing toxic wastes into a shallow bay filling it with around 200 million tons of toxic wastes. When exposed to the ocean breezes, the tailings were carried by the wind into the rice fields, open wells, and homes. This so-called “snow from Canada” has killed at least three children due to

heavy metal poisoning and forced 59 others to undergo traumatic lead detoxification.

Legislative Actions

The economic, social and environmental costs of large-scale mining far outweigh its benefits. The increase in the number of incidents similar to the Marcopper disaster is slowly, and painstakingly, adding proof to this point. Many individuals and groups from different sectors expressed their concern over the lack of corporate social responsibility of large mining firms and questioned the constitutionality of several provisions of the Philippine Mining Act that give excessive benefits to foreign corporations.

In 1997, the La Bugal-B'laan Tribal Association filed a petition questioning the constitutionality of RA 7942, particularly the provision allowing foreigners to fully control the exploration, development, utilisation, and processing of the country's minerals resources.

On January 2004, the Supreme Court ruled the Mining Act of 1995 as unconstitutional but President Gloria Macapagal-Arroyo's government appealed the decision, highlighting the possible investments that the country may lose. On December 2004, the highest court of the land reversed its earlier decision.

The Arroyo Government Mineral Revitalisation Programme

Capitalising on the Supreme Court's reversal of its ruling, the Arroyo government launched the revitalisation of the minerals industry programme in 2004.

To bolster the programme, the president ordered the DENR to identify 24 medium-to large-scale mineral resources development areas. These project-areas are said to have the potential of generating a total of \$6.7 billion in investments and around 200,000 direct and indirect employment.

The DENR also drafted the Mineral Action Plan which simplified the government departments' and agencies' procedures in issuing mining contracts and permits. Since its implementation, around 63 foreign-owned and controlled corporations have been granted permits for mining operations.

In the 7th Asia-Pacific Mining Conference and Exhibition held on June 2007, Arroyo declared that the mining industry would "serve as a leading engine for Philippine economic growth, becoming a source of revenue and wealth to allow the government to seriously bring down the level of poverty in the country".

Legislation

Together with the increase in the approved mining permits for mineral exploration, development and utilisation came the downpour of complaints from different communities against the effects of large-scale mining on people's health and livelihood, so that the Lower and Upper Houses began to take notice.

During the 12th Congress, former Sorsogon representative and now Senator Francis Escudero, through a resolution, asked the House Committee on Environment and

Natural Resources to conduct an inquiry into the effects of mining activities being conducted in the island municipality of Rapu-Rapu, Albay. His call was echoed by former Bayan Muna Rep. Joel Virador and Anakpawis Rep. Rafael Mariano in the 13th Congress.

Rapu-Rapu is another “Marcopper” waiting to happen. Lafayette Mining Inc.’s improper waste water disposal resulted in a fishkill that devastated the livelihood of residents and threatens their safety and wellbeing.

Similar investigations were asked to be done on the mining operations in Nueva Vizcaya, Marinduque, Capiz, Eastern Samar, Zamboanga del Norte, and other provinces.

Indigenous Peoples

Eighteen out of the 24 priority mining projects are in indigenous territories. This caused many indigenous peoples to be economically and culturally displaced from their ancestral lands. The Lumads of Compostela Valley, Ifugaos of Benguet and Subanens of Zamboanga del Norte, for example are pushed away from their homes by the easement rights granted to foreign mining firms by the Arroyo government.

Any form of resistance from the indigenous peoples is immediately quashed through the deployment of military and paramilitary forces. Men, women and children of indigenous tribes are being tortured, harassed, raped and murdered. From 2001 to 2007, the Indigenous Peoples Human Rights Watch has recorded 130 cases of extrajudicial killings that victimised indigenous peoples.

The militarisation in mining areas intensified with the introduction of the Investment Defence Force (IDF) on February 8, 2008. IDF is composed of the members the Armed Forces of the Philippines (AFP) tasked to protect vital mining infrastructures and projects from those who stand in the way of development. This latest addition to the government’s tools of repression displaced 410 families from Davao Oriental during the first quarter of this year and 104 families from the Compostela Valley during the second quarter.

The Indigenous Peoples Rights Act (IPRA) of 1997 was created to “recognise, respect and protect the rights of the indigenous cultural communities to preserve and develop their cultures, traditions, and institutions”. But a closer look at the law reveals several provisions that are against the interests of the indigenous peoples. For example, the IPRA requires indigenous peoples to first obtain a Certificate of Ancestral Domain Title (CADT) before they can claim their ancestral lands. Forcing them to name their lands under a single private entity destroys their tradition of communal land ownership and therefore violates one of their rights as stated in the IPRA law.

The contradicting features of the IPRA caused progressive party-list representatives from the Gabriela Women’s Party, Bayan Muna and Anakpawis to file a resolution directing the Oversight Committee to review the implementation of the IPRA and recommend measures that will ensure the genuine promotion and protection of indigenous people’s rights, including their right to ancestral domain.

Another questionable feature of IPRA is the section which claims to recognise the free prior and informed consent (FPIC) of the indigenous peoples. It states that no development project can proceed without a clear consent from the affected indigenous peoples.

The acquisition of an FPIC, however, can be cheated, bypassed, and even ignored by companies who want to exploit these ancestral lands. An example is the mining exploration in Nueva Vizcaya by Australian-owned Royal Co. which started operations without even the consent of the tribal communities that will be affected by the mining activities.

Royal Co., during the onsite hearing conducted by the House Committee on National Cultural Communities in which this representative is a member, claimed to have acquired the approval of the Bugkalots, specifically that of the tribe's elders and leaders, but was later revealed that the "council of elders" the company consulted comprised of non-clan members and some people who were offered rewards in exchange for their approval.

Aside from IPRA, the National Commission on Indigenous Peoples (NCIP) was also asked to be investigated in the light of complaints pointing to the agency as the perpetrator of human rights violations rather than the supposedly independent body mandated to protect and promote the interests and well being of indigenous peoples.

Pro-mining Legislation

While a large number of bills and resolutions filed in the Lower and Upper House were focused on criticising the impact of large-scale mining on the environment and on people, some were focused on covering up the loopholes in the Philippine Mining Act, in attempts save the repressive law from imminent abolition.

An example is the bill filed by South Cotabato Rep. Arthur Pingoy, Jr., which seeks to grant mining royalties to the Philippine government and to establish mechanisms for its proper payment, collection and administration. The same lawmaker also filed a bill seeking to grant mining royalties to indigenous people and other communities affected by mining operations. His legislative actions were not hinged on the defence of the national patrimony, but rather on the continuation of the exploitation of the country's resources.

The resolution filed by Rep. Luis Villafuerte, which was aimed at giving opportunities to bonafide investors in mining exploration and development, creating employment opportunities, generating government revenues and expanding the national export capacity, was a selling of the Philippines' patrimony.

Legislative Actions to Repeal the Mining Act

In 2005, Rep. Virador filed in the House of Representatives a bill seeking to repeal the Philippine Mining Act of 1995. The former Bayan Muna solon (lawmakers) called on his fellow legislators to review the ten-year implementation of the Mining Act particularly its impact on the environment, indigenous peoples, upland settlers, and the national economy. He also urged for an investigation on how the national government's projected

revenues from increased mining activities in the country were determined and how these reconcile with the sector's actual economic contributions, incentives offered to foreign contractors, as well as the social and economical costs that have attended its liberalisation with the implementation of Republic Act 7942. As expected, his bills and resolutions seeking to review and repeal the mining act were still pending in the Committee on Natural Resources when the 13th Congress ended.

In the present Congress, this representative, together with Bayan Muna Reps. Teodoro Casiño (principal author) and Satur Ocampo, Gabriela Rep. Liza Maza, and the late Anakpawis Rep. Crispin Beltran, authored House Bill 1793 or "An Act Repealing RA 7492, Otherwise Known as The Mining Act of 1995". The bill is pending with the Committee on Natural Resources.

In the Senate, Sen. Maria Ana Consuelo "Jamby" Madrigal filed a counterpart bill – Senate Bill 27 or "An Act Repealing Republic Act 7942, Instituting a New System of Mineral Resources Exploration, Development, Utilisation and Conservation, Otherwise Known as the Philippine Mining Act of 1995", which is at the first reading and was referred to the Senate Committee on Environment and Natural Resources.

The progressive legislators in the House of Representatives and the Senate are seeking to repeal the Philippine Mining Act of 1995 because it is an anti-people policy of the State. The tools and methods used in mineral extraction invite disasters and calamities which effectively drive away the indigenous peoples, peasants, workers and small-scale miners from their ancestral lands and deprive them of their means of livelihood.

Contrary to the government's claims, the liberalisation of the mining industry did not bring about economic development. Thirteen years have passed since the Philippine Mining Act was implemented, yet the country's economy remains in a slump. The Philippines did not gain in any way in terms of mining investments, exports or revenues. It did not wipe out the country's foreign debt.

The law has only opened the country's mineral wealth to the full exploitation by foreign transnational and multinational corporations which is a sell-out of our national patrimony and sovereignty. Letting foreign mining giants gobble up the country's natural resources will ensure the continuance of the policy of an export-oriented and import-dependent Philippine economy.

Thailand

Tungkam Gold Mine at Phuthapfa, Tambon Khaoluang, Wangsaphung District, Loei Province

Watcharapon Wattanakum
Loei Foundation for Conservation and Sustainable Development,
and Loei Civil Society

Background

Phuthapfa Mountain is one kilometre from Ban Na Nong Bong in tambon (sub-district) Khaoluang, Wangsaphung district, Loei province. To get there, turn right from highway No. 201 (Loei-Wangsaphung) at Ban Pak Puan which is 15 kilometres south of Loei City and is 9 kilometres to the west of Ban Pak Puan.

The area is mainly a flat valley, part of which is a national reserved forest, the Khok Phulek forest. Other parts of the area have been under land reform programme known as 'Sor Por Kor' undertaken by the Office of Land Reformation for Agriculturist and Agricultural Purposes. The reformed lands are normally used for agricultural purposes. Gathering of forest products are also done.

The Thai government conducted a gold exploration in Loei from 1992 to 1997. Tungkam Company Ltd. is a company under Tongkah Harbour Investment which was commercially registered in 1991. Tongkah Harbour holds 98.86% of the shares and the rest is owned by Chollasin Company Ltd. Tungkam has been approved for mining license to operate in the area for the first 25 years that will end around 2027-2028. Tungkam's license covers 6 plots of land; however, it plans to cover 120 plots of land in the future that would cover 48 square kilometres. Phuthapfa is in its 4th plot. The company also has another special license of 8 plots covering 38.40 square kilometres.

The Fourth Plot of Phuthapfa

The north: Gold has been found in Phuthapfa Mountain. It is 300 metres above sea level and 100 metres away from Huay Hai creek, which is a tributary of the Loei River. East and south: These are valley areas with the Hauy Puk creek of Hauy Hai creek. Rice, soybeans, corn and other grains are grown in the fields. West and southwest: Old springs called Sam Puta and Sam Pabon are presently used by the mine for its water sources.

The Tungkam gold mining company operates on US\$13 million financing through the joint support of the Thailand Export and Import Bank (EXIM Bank) and Thai Bank Public Company. The infrastructures of the mine site had been set up in May 2006. The commercial operations of the mine began in September of the same year with a capacity of 1,200 to 1,500 metric tons of ore a day. In 2006, Tungkam mines worked on 174,763 metric tons and as of December 31, 2006, the company produced 12,364 ounces or approximately 350.51 kilograms of gold which has the market value of about 269.47 million Thai baht.¹ The mining company's net profit in the first four months was 59.76 million baht and its mother company earned 6.09 million baht as net profit.

The first phase of the 20-year mining license is expected to have 90% purity of gold with a maximum of five metric tons or a total price value of 2,000 million baht. The Thai government would get 2.5% mineral royalty which is about 50 million baht. In the period of investment cost-worth first 10 years, the benefit shares would be as follows:

- Central government 40%: 20 million baht.
- Loei's Tambon Administrative Organisation (TAO) 20%: 10 million baht.
- Local TAO 20%: 10 million baht.
- Loei Provincial Administrative Organisation (PAO) 10%: five million baht.
- All TAO in the country 10%: five million baht.



Mining Technology Applied by Tungkam Company

Phuthapfa gold mine uses open-pit mining technology in cuts across the area from northeast to southwest of Phuthapfa Mt. valley. They have constructed a haul road at the side of the pit, forming a ramp up which trucks can drive, carrying ore and waste rock. Waste rock is piled up at the surface, near the edge of the open cut as the waste dumpsite. The waste dump is also tiered and stepped, to minimise degradation. Ore is crushed to dust and sent for processing in the Carbon In Pulp (CIP). Ore which has been processed or tailings, is a slurry separated in thickener. Waste water is pumped to a tailings dam or settling pond and reused as process water tank. Tailings are sent to detoxification tank for another process. Some forms of toxic minerals in the gangue, and cyanide which is used to treat gold ore through the cyanide leach process and left over of cyanide must not exceed 2 mg/litre (0.2 ppm). The tailings pond must be placed down the bottom with a high-density polyethylene sheet to prevent leaking.

Dangers Posed by the Phuthapfa Mines

Defective tailings pond and leaking to the Nam Huay creek: According to the Thailand Mineral Acts 2510 (1967) Article 63, “mining licensee must not block, destroy or do anything that will cause destruction or contamination to highway and local/public

¹ 1 US dollar is approximately 34.05 Thai baht (June 2009).

waterway, any exception must be given official permission by the local mineral office and conditions stated in the permission document will be strictly followed". It has been found that no permission was given for the blockage of the local waterway in the Phuthapfa gold mine. Besides, there is no report on the blockage of waterway in the mining Environment Impact Assessment (EIA), and that makes the EIA faulty.

Leakage of toxic water from the tailings pond: Standard cyanide residue left over must not exceed 0.2 ppm; however, it was found out that the cyanide content is 2 ppm which is 10 times over the industrial standard indicated in Environment Protection Acts. The very high level of cyanide content is an indication of poor and inefficient mining waste disposal system, obviously a violation of standards and an illegal practice.

The EIA report amendment page 7 in the additional explanatory scope 1.3.3 pointed out the problem of storing hazardous waste like cyanide and heavy metals and threatening conditions in case of emergency, and requested the halt of the mining operation until the problem was solved and the threat was removed. However, until now there is no action taken neither by the company nor by the relevant state agencies.



Investigation report made on May 16, 2007 found deficiencies and poor technical practices that could be concluded as follows:

- No cyanide elimination and contamination of cyanide on used containers left abandoned.
- Insufficient management of sulfide and drainage pits at the dumpsite.
- The dumpsite dams are not constructed as specified in the EIA.
- Cyanide solvent and treatment tanks often have overflown into the environment.
- Insufficient capacity of waste water treatment ponds.
- Drainage of ore storing pond is not in good condition.
- Pond floor construction, leaking proof material, and their specifications are being questioned.
- Construction of metal and chemical workshop drainage is neglected.
- Rainwater draining system at the mining site is neglected.
- Cyanide level from detoxification tank is above acceptable level.
- Leak-proof covering sheet around the ore storing ponds has never been in a condition to function as designed.

Only some of those poor practices have been improved but have not yet reached the acceptable standard whilst the mining still operates as usual.

Some questions have been raised about official authorities, for instance, the former top officials of Department of Primary Industry and Mining (DPIM) on illegal benefits and misconduct while in top positions in the Department. It was found those officials are now also holding executive positions in Tungkam Company. There were many illegal practices such as blocking the data and information from local access when they were in the DPIM. Information on prevention and protection measures to monitor mining management and operations are not clarified and verified to the public at both provincial and local levels.

There are no prevention and protection measures for people's health. No warning system to the neighbouring communities.

Phenomenon and Impacts on Community Livelihood

- When rice crops failed in 2004 before the official start of the mining operation, farmers filed complaints with the mining company. The company compensated the farmers.
- Local springs and waterways formerly used for rice farming have dried up and the mining company pumped water from neighbouring waterway Huay Puk to solve this problem.
- Noise from the blasts at the mining site caused very poor health conditions of the community people including sleeplessness and nerve diseases.
- Office of Environment, Zone 9, conducted an investigation which found hazardous degree of cyanide and heavy metal contamination in Huay Heuy and Loei river tributary close to the mining site. Public health offices and local health centre together with Loei Hospital have processed local peoples' health examination and found severe degrees of cyanide in the blood of 54 people out of 280 samples in 6 villages in 2007.
- At least 40 households in Nanongbong village can no longer get drinking water from their normal source and must pay for potable water. The cost of water has further burdened poor families.
- Eye irritation, eye sores and inflammation of eye tissue and chronic symptoms of allergies and skin rashes in children and adults are rampant.
- Some community leaders received some monetary benefit from the mining company, which caused a divide among the community people. This monetary benefit has also confused the people only to look at temporary solutions and benefits, risking the negative impact of mining, the company's misconduct and poor practices.

To hold relevant authorities accountable for the negative impacts of mining on the local communities, these processes need to be carried out:

- Conduct Health Impact Assessment (HIA) and Social Impact Assessment (SIA).
- Analyse reports on accumulative impacts.
- Disclose and make accessible for anyone all related information and data.
- Ensure substantive participation of the local people in public hearings.
- Disseminate the information on the impacts and implications of the mining operations to the public for awareness raising.



Part III

Strategies of Actions

I. STRATEGIES OF ACTIONS AT THE LOCAL AND NATIONAL LEVELS

This workshop enabled participants to share various strategies that have been effectively used by their organisations or communities which they can adopt and use within their own country-specific and community contexts.

Bangladesh: The Case of Phulbari Open-Pit Mining

People from various sectors, including professionals and political activists, formed a national committee to protest oil exploration and coal mining. The national committee discussed the coal pit mining in Phulbari. Their discussions were shared with indigenous peoples, farmers, migrants and the communities who were affected by the coal mine project and united them to oppose the project.

The organisations opposing the coal mine project worked to convince locally elected officials to support the campaign to stop the project. Community mobilisations were carried out. They also shared experiences in being deceived with false promises by mining companies. They were able to invite experts to discuss the adverse impact of the open pit on the environment. Media is hostile to the issue as either they are pressured by the company and the government or bribed. The resistance groups were able to bring the issue to the national and international level especially when the open rifle firing at protesting people happened in August 2006. The military-backed caretaker government suppresses people's protests. People are looking at the upcoming national elections as an opportunity to have the politicians in favour of the people's resistance against the coal mining.

Cambodia

Extractive industry activities have grown rapidly across Cambodia. However, almost no information has been made publicly available by the Ministry of Industry, Mine and Energy (MIME), the Ministry of Environment (MoE) or other relevant ministries, or by the companies themselves. Therefore, the majority of civil society remains unaware of the implications of having these extractive industries operating in the communities.

Up to December 2008, there have been a number of meetings between the representatives of NGOs, community-based organisations and donors to share broader information and common concerns of the extractive industry, and to build momentum for developing a national network/working group on mining in Cambodia.

As a result of the meetings, the working group for National Network on Social and Environmental Impacts of Extractive Industry has been formed with 59 people representing NGOs, community-based organisations and donors. The objectives of the working group are defined as follows:

- Strengthen the capacity of civil society by increasing their knowledge and expertise especially through networking and exchange of experiences in dealing with the issues related to social and environmental impacts of extractive industry activities.
- Strengthen civil society at national level to support community to raise their concerns about social and environmental issues.
- Coordinate networks with other sectors to advocate for social, environmental and economic rights of people.

Korea

To raise civil society awareness on the issues of air and water contamination and other pollution caused by cement and metal plants and mining, NGOs took up specific issues directly affecting people, such as health, and conducted discussions with affected people as well as the general public. They then went for wider campaigning using the media, including the internet.

An independent task force was formed to investigate the health impact of the pollution caused by cement factories. Health survey and scientific research such as examining the residue of toxic substances in people's hair were conducted and the result was used for advocacy and campaigning against using toxic agents in processing the cement. The results of the survey and research are an effective tool for NGOs and community people.

As a result, metropolis of Seoul government, the capital and the biggest city in Korea made a "green cement" ordinance.

Mongolia

The effective strategies used by the Centre for Human Rights and Development(CHRD) and other NGOs and civil society groups include:

- *Research.* It should be conducted in a participatory way involving the community people affected by mining so that their immediate concerns will be reflected and propagated in and through the research. Specific focus of the current research is to identify and assess the existing barriers for communities to participate in decision-making processes on environmental issues.
- *Dialogue and advocacy.* NGOs should facilitate a dialogue and mediate between the affected people and the mining companies. In lobbying the local and national governments, it is effective to use international human rights standards and mechanisms such as the United Nations (UN) Conventions and the UN special procedures, and relate the local issues to regional and global issues such as climate change and other environmental and human rights issues.
- *Increasing awareness.* Study sessions, workshops or fact-finding missions deepen the understanding of the issue at the local level. Mobilising wider general public at both regional and international levels and generating support to local actions strengthen advocacies. Raising awareness among lawyers and para-legal consultants is also important for advocacy and lobbying for legislative change.
- *Legal action – Litigation.* In Mongolia, CHRD has filed cases against mining companies for violation of environmental laws, to demand for compensation, rehabilitation and cancellation of illegal licenses. These cases are going on.

It is also effective to establish a mechanism such as the Committee of Public Interest Litigation within the City Advocates Council to attract and involve more lawyers into environmental public interest litigation. CHRD organises trainings for lawyers on public interest litigation (PIL); regular moot courts on the cases before court hearings; a team of lawyers for the cases; discussions on PIL involving judges, prosecutors and representatives of mining affected communities. Other targets are law school students and lecturers to involve more lawyers and increase their concerns on public interest issues.

- *Legal action – Legislative change.* CHRDR is also lobbying for amendments in the Minerals Law and the Law on Environmental Impact Assessment and demanding stricter social responsibilities of mining companies and local administration to meet the needs and expectations of the communities. The amendments are developed through series of multi-stakeholder meetings with the Ministry of Nature and Environment, law enforcers, and the general public, where concerned issues are defined, and common understanding and consensus are built. Petitions are also effective in bringing people's concerns to the government and raising people's awareness. CHRDR also works to build legal standing rights of NGOs on environmental and other issues of public interest.

Capacity building of local communities is most important. CHRDR conducts trainings, provides necessary information on the existing laws and facilitates community organising to improve local communities' participation in decision-making processes.

Philippines

In the Philippines, various strategies have been used to strengthen the local community movement. The strategies include community organising, education work, solidarity building with other organisations working on the mining issue, media projection and issuance of press releases. Also, local government units up to the national level are lobbied for their support on the issues affecting the people on mining. Supporting documents include petitions and result of local referendum. Campaigns at the local, national and international levels are also conducted. The issue of mining is linked to other issues such as militarisation, land rights and national sovereignty. Legislators are lobbied to consider petitions by the people against mining and to pass resolutions such as the resolution on mining moratorium. The repeal of Philippine Mining Act of 1995 is being pushed in the Philippine Congress and Senate along with the crafting of an alternative mining law.

Other effective strategies are exchange visits or study tours within the Cordillera region, within the country and to other countries. It is also important to share up-to-date information on mining and actions taken by women and people among organisations working on mining issues such as the International Network on Women and Mining (RIMM), Mines and Communities and the Women and Environment Task Force (WEN TF) of APWLD. This allows the groups to be abreast of mining developments and community actions. This also enables us to respond swiftly to emerging and urgent issues on mining.

Other actions include community barricades, rallies and sending delegations for pickets at the Mines Geo-Sciences Board of the Department of Environment and Natural Resources, other government offices and offices of the mining companies.

A combination of such actions resulted in a moratorium on mining as in the case of mountain provinces in the Cordillera region, and a delay in the implementation of mining projects. Actions, however, have to be sustained as mining companies and the state will not give up their interest in the mining industry.

Mindanao, the Philippines

The strategies used by mine-affected communities and people's organisations in Mindanao are raising awareness raising through different education activities on mining; movement-building through organising the communities, alliance-building with other communities and people's organisations; and campaigning. Organisers and organisations involved in the mining issue are labelled as terrorists by the government and this gives a license to militarise the areas where there are mining projects. Political killings and harassment of leaders and members of people's organisations involved in the campaigns against mining, were used to suppress people's opposition to mining and other forms of development aggression. Sustainability of campaign activities is sometimes affected by lack of resources; thus it is important to broaden support networks to help in the provision of resources when local resources are exhausted.

Corrupt government officials are bribed by mining companies, and hence the interest of communities is often compromised. Lessons have been learnt from the experience that signing an entry to the consultation with the mining company was automatically taken as consent.

Story of people's resistance – 1

Conner, Apayao in the Cordillera Region, The Philippines

Two mining transnational corporations (TNCs) have applied in Conner. One is Anglo American, a UK-based mining TNC, which bought the application of the US-owned Newmont mining TNC. They applied for an area covering 8,000 hectares. The other is Oceana Gold (formerly Climax Arimco), an Australian-owned mining TNC which applied for 9,000 hectares. The two mining companies cover 81% of Conner's land area, leaving only 19% for agriculture and other uses for local communities.

The two mining companies were able to get the support of local government officials and government agencies including the Department of Environment and Natural Resources (DENR) and the National Commission of Indigenous Peoples (NCIP), which is supposed to ensure the rights of indigenous peoples. These government agencies were the ones facilitating the smooth entry of the mining companies and were serving as the mouth-piece of the mining companies.

During community consultations, the government agencies only discussed the promises of the mining companies of employment, scholarships and livelihood projects. The mining companies and the government representatives never talked about the negative implications of mining. But having seen mined-out areas and communities ravaged by mining, the people are aware of what becomes of their municipality once they allow mining companies to operate. Despite the community resistance which was supported by community petitions and a community referendum, the NCIP granted a certificate of Free, Prior and Informed Consent (FPIC). Deceptive and coercive measures were employed by the mining companies in collaboration with government agencies and officials. Those opposed to the mining projects were labelled as anti-development and worst as terrorists and thus made

them a target for harassment and even death. Local government officials did not honour the community petitions which unanimously rejected the mining projects.

The people through their organisation, Save the Apayao Peoples' Organisation (SAPO) stood by their position not to allow the mining operations and condemned the treachery of the local government officials, the DENR and NCIP. SAPO persisted with their awareness-raising, organised exposure trips to mine-affected communities in the Cordillera and the nearby province of Nueva Viscaya where another mine project of Oceana Gold is being imposed. SAPO was invited to the annual general meeting of Anglo American in the UK in April 2007, and also participated in the mining fact-finding missions and the study session on women and mining organised by the APWLD, as well as other regional and national activities to present their experience in resisting corporate mining projects.

Story of people's resistance – 2

Baay-Licun, Abra in the Cordillera region, The Philippines

Two mining applications were filed in the municipality of Baay-Licun by the Olympus Pacific and Jabel Corporations, both Canadian mining companies. There was general resistance to the entry of these mining companies. When Olympus Pacific pursued its exploration, the affected communities sought the support of the Cordillera Peoples Alliance and other NGOs. Educational activities were held among affected communities. The people's unity against the operation of Olympus Pacific and Jabel Corporation galvanised the people to form an organisation named BALITOK (literally meaning gold, it is an acronym, in the local language, for upholding indigenous people's survival and for people's resistance against corporate mining projects).

A support campaign group among Abra women domestic workers in Hong Kong was also formed and led the campaign among overseas Filipino workers in Hong Kong against corporate mining in Abra and other parts of the Cordillera region.

As part of BALITOK's serious efforts in preventing mine operations in their territory, they hosted the observance of Cordillera Day in Baay-Licun on April 23-24, 2008 which was able to muster hundreds of advocates and support groups from different parts of the Philippines and abroad, aside from the thousands of delegates from different parts of the Cordillera region. A unity pact was forged by local elders and leaders, which was witnessed by the whole delegation of Cordillera Day 2008. Church personalities also supported the peoples' struggle against large mining in the province. In all the efforts, women's active participation is visible.

The government labelled those opposing the mining project as terrorists, and deployed military in the area. Corrupt officials have accepted bribes from mining companies and are actively endorsing the mining projects in the guise of development in the province.

Thailand

Mining is a new issue for the local NGO community in Loei as well as the villagers. Therefore, the most important strategy to raise mining issue as human rights issue is to increase the awareness among civil society and to organise themselves. Three important strategies Loei civil society has used are:

- Learning from other community leaders who have experience in people's movement on mining issue: People in Udon Thani province in the northeast Thailand have been organising themselves and protesting against the potash mining which has been operating in the province for around ten years. The NGO staff and community leaders from Udon Thani visited Loei several times and had discussions with NGOs and villagers affected by the mining in Loei. They emphasised the community's right to decision making on the land and natural resource management, which is guaranteed in the Constitution and various laws. Learning from them, 70-80 villagers in Loei organised a rally to the provincial governor's office and demanded investigation of water and air pollution as well as the impact of daily blasts happening at the mining operation. It was the first big event where the villagers got involved in the mining issue.
- Using accessible official mechanism to raise awareness on mining: National Health Commission Office (NHCO), the implementation body of the newly passed law on public health, has started a Health Impact Assessment. This assessment aims to raise awareness on health issues and promote people's participation in the process of drafting health policy. NGOs and academics have been closely working with NHCO on the assessment to ensure community participation. Since health is one of the major concerns for the villagers with regard to the mine operating near their village, it was a good entry point for villagers to get more involved in the mining issue.
- Role of local media: in Thailand, there is a non-profit nation-wide public broadcasting TV station (Thai PBS) while civil society also has local radio stations. The Thai PBS made an hour-long documentary programme on the mining in Loei, in cooperation with the local NGOs and the villagers affected, which was broadcast in June 2008. NGOs have been using the documentary as a tool to raise awareness among more villages as well as at national level. The local radio stations are consolidated in a nationwide civil society radio network and in Loei, it is closely working with NGOs on the mining and other sustainable development issues.

II. STRATEGIES OF ACTIONS AT THE REGIONAL AND INTERNATIONAL LEVELS

Sharing the strategies used in each country and exploring the possibility of adapting them to other contexts, participants came up with collective strategies at the regional and international levels to further their advocacy to restore and protect environment and rights of people as follows:

1. Conduct more study sessions on global policies on mining and disseminate information through APWLD members to reach out to other women's organisations who are working on the mining issue.

2. Use international instruments including the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) and the UN special procedures to hold the states and mining companies accountable and responsible.
3. Facilitate exchange and exposure visits between women leaders involved in mining struggles to strengthen the local movements
4. Conduct fact-finding missions on the impact of mining with the local people and present the results at public inquiries or people's tribunals.
5. Support local or national campaigns on women and mining through disseminating information and assisting fund raising.

Part IV

Annexes

Media Articles

Asia Women Assert “Food Over Gold”

By Innabuyog-Gabriela

Over the years, large-scale corporate mining has caused tremendous damage to the food resources of rural communities putting indigenous and peasant women in more difficult hunger and human rights situation. Large mining has caused irreversible damage to the environment – defacing mountains, desertification and heavy siltation, damage of water resources and agricultural lands. Yet, most governments all over the world continue to support the mining industry, opt for the interest of mining transnationals over peoples’ rights to resources and the environment.

The Asia Pacific Forum on Women, Law and Development (APWLD) is a network of women organisations and individuals in the Asia-Pacific region that promotes women’s human rights in the face of globalisation, militarisation and fundamentalisms. Particularly, its Task Force (TF) on Women and Environment (WEN) launched the “Food Over Gold” campaign in 2005 as part of APWLD’s food sovereignty campaign.

The TF WEN, convened by Vernie Yocogan-Diano of Innabuyog aims to highlight the impact of mining to women and food sovereignty given the heightened aggressiveness of mining corporations since the World Bank called for the liberalisation of the mining industry in the early 90’s. In the previous years, WEN has organised

some forums regarding women and mining and mining fact-finding missions. These forums served as venues for effectively analysing the impact of mining on food sovereignty, on women’s rights as a whole and in the light of human security laws enforced by governments in the Asia-Pacific. These have served as support materials for TF WEN members in their advocacy and campaigns work on mining and food sovereignty. In the light of the world’s outcry against climate change and global warming, the Task Force on Women and Environment of APWLD will also concretise its work to response to this concern.

APWLD’s TF WEN will be holding a study session on women and mining in Asia on July 17-20, 2008 in Baguio City to strengthen its resolve for women’s food sovereignty over the destruction of environment. This will be held at the Igorot Lodge, Asian Institute Management Conference Centre, Club John Hay, Baguio City. Participants will come from women’s organisations from Bangladesh, Cambodia, Thailand, Philippines, Mongolia, Korea and Indonesia to discuss on the international trends in mining, mining and food sovereignty, mining and indigenous women, mining and militarisation and the health issues that goes with mining. The study session will also look into the opportunities where women in Asia can bring their collective voice for actions, in the local, national and international arenas.

Gabriela Women's Party representative Luzviminda Ilagan will be joining the APWLD group by providing an input on legislative actions and initiatives on mining in the Philippines along with Francesca Quimpo of the Kalikasan-Philippine Network on Environment.

Barangay RP (<http://barangayrp.wordpress.com/>), July 26, 2008 Northern Dispatch (www.nordis.net)

Asia-Pacific Women Bear Mining Woes

BAGUIO CITY — Participants to the Seminar on Women and Mining at the Asian Institute of Management (AIM) at Camp John Hay, here, concluded that mining's adverse impacts fall hardest on women among the world's poorest populations.

Khushi Kabir of the Nijera Kori, an NGO in Bangladesh, said poor women bear the burden of a threatened food security due to mining operations. "It is the poor women who have to scamp for food, face military atrocities and secure the whole family from environmental threats due to mining", Khushi told the Baguio press, shortly after the seminar which gathered more than 30 women from seven countries.

In her native Bangladesh, mining for coal, oil and gas has left communities with large craters and damaged fertile agricultural lands, leaving Bengali farmers in extreme poverty and hunger.

In Thailand, where there is a potash mine, health authorities found cyanide in the blood of residents, and in the river system. Potash is a mineral used to manufacture glass and soap. The new Thai mining code, enacted some 10 years ago, left landowners only 50 metres from the surface, the resources beyond which include minerals, belong to the Thai government. This is similar to the Regalian Doctrine, adopted in Philippine laws, which states that all minerals belonged to the state.

Suntaree, a participant from Thailand said, "People could not get anything from their own lands because the government owned the minerals 50 metres underground."

Sponsored by an all-women development group, Asia Pacific Forum on Women, Law and Development (APWLD), the four-day seminar on mining included tours to Benguet mine sites where participants interacted with local folk in mining communities.

Foreign interests in mining

Mines in all the countries represented are now foreign-owned and controlled, with their respective mining laws amended to accommodate foreign ownership.

In Indonesia, for instance, the 1965 mining law was amended to suit the interests of foreign investors.

One of the participants said she "did not expect the magnitude of environmental devastation after the minerals have been extracted from the bosom of the earth", describing an abandoned mine site.

Similarly, in the Philippines, the Mining Act of 1995 provides for a financial and technical assistance agreement (FTAA) that allows foreign-owned corporations into mining ventures and grants foreign investors certain rights normally denied aliens.

Newmont, an international mining company with applications for FTAA in the Cordillera, is also in Indonesia. It is being accused of polluting the Indonesian Senunu Bay with heavy metals and other toxic wastes that might be detrimental to the ocean's ecosystem.

Human rights, Asian women

With mining in their midst, Asian women face security problems due to military presence in their communities. As it turned out during the seminar, extrajudicial killings are a common occurrence in many mining communities in the Asia-Pacific region.

Bangladesh women saw the bitter realities of genocide with the mines at the border displacing many communities before 1979.

“When people returned, there was massive landlessness, conflict and poverty”, Kushi told the media Monday.

The gathering provided the women a forum to identify their common situations and came up with doable resolutions, according to Vernie Yocogan-Diano, chairperson of Innabuyog-Gabriela, among APWLD conveners and host of the seminar.

“The workshops are important”, said Lynnsay Francis of Cook Islands in the Pacific. She said, the United Nations’

Millennium Development Goals to eradicate poverty by 2015 is far from being achieved.

APWLD’s programmes and activities are focused in promoting women’s rights as human rights as an analytical and strategic framework of engaging with the legal system to empower women.

APWLD has engaged primarily in policy advocacy, education, training and other activities to address issues and concerns of poor and marginalised women in the region. It has lobbied at regional and international levels for the implementation of government commitments in international conventions and the integration of gender issues at regional and international fora.

APWLD has developed partnership with women’s groups, human rights groups and development NGOs in the Asia-Pacific region to consolidate, expand and strengthen networks working on women, law and development.

In 1986, women lawyers and other activists in the region formally launched APWLD and set up a secretariat in Kuala Lumpur, Malaysia. The secretariat relocated to Chiangmai, Thailand in October 1997. – Lyn V. Ramo (NorDis)

Barangay RP (<http://baragayrp.wordpress.com/>), August 3, 2008 Northern Dispatch (www.nordis.net)

(This article was also covered as “Asia-Pacific women bear the brunt of mining” on August 4 2008 by the same author on <http://www.minesandcommunities.org/article.php?a=8739>)

A Glimpse into Mongolia's Mining Communities

By Vernie Yocogan-Diano

The Asia Pacific Forum on Women, Law and Development (APWLD), particularly its Women and Environment (WEN), conducted a fact-finding mission on the mining situation of some communities in Mongolia on August 15-19, 2007 as part of its Food over Gold Campaign.

Participating organisations include Innabuyog-Gabriela of the Philippines, the TF WEN convenor; Centre for Human Rights and Development (CHRD) of Mongolia; Solidaritas Perempuan of Indonesia; Samata of India; and the International Network on Women and Mining-Asian region.

The mission gave the participants the opportunity to have a closer look into the land of the beautiful, of blue skies, of herds and vast graze lands that is Mongolia. Mongolia used to enjoy a socialist system before the 1990s. Its national government is so much eager now to be part of the global market economy and thus had since been welcoming foreign investments and capital.

Among the investments and industries that its national government is aggressively selling out is gold mining, a mineral that this country is very rich of.

Mongolia was among the 72 countries which responded quickly to the World Bank's call to liberalise the mining industry in the 1990s. In 1997, Mongolia passed its Mining Law and the Government Gold Programme

was launched. This signaled the beginning of intense mining in the country. The Mining Law favored foreign mining companies fully exempting them from taxes for the first five years and 50% for the next five years.

The national government of Mongolia expects economic growth to be gained by the mining industry. Most of the mines are operated by foreign mining companies.

For over 10 years of intense capitalist mining, poverty in the country remained and hunger increased. An official study by the National Statistics Office of Mongolia (2003) shows that 36.1 % of Mongolians live below the poverty line. Simply stated, only one-third of Mongolia population is living with US\$20 per month. The poorest 20% of the population that earns US\$8 a month do not have enough income to buy adequate food.

Herding is the main livelihood of the people in the countryside and 40% of the population is into herding and breeding livestock. Government policy on the mining sector and its implementation do not respect, promote or protect the rights of herding families. Currently, 45% of Mongolian territory had been given away for mining. In some provinces, 70-80% of the land is given to mining licenses.

While mining is looked upon by the Mongolian national government as a key economic survival for the country, herders and local people do not truly benefit from it. The right to livelihood and healthy environment of herders are

being denied because of the tremendous destruction caused by mining.

Fact-finding mission results

In the areas visited by the fact-finding mission namely Khongor, Zaamar, Tsenker, Bat-Ulzii and Uyanga, vast tracts of pasture or grazing lands had been wasted as these had been turned into open-pit gold mines. Earth-moving equipment run around the mine site digging the earth, turning everything upside down.

Water which is a very scarce resource in Mongolia is being drawn to the mine areas. Hundreds of rivers, lakes and springs through Mongolia have dried up and polluted due to gold extraction. Small-scale miners (called ninja miners) are being driven away when they come to take a small amount to sustain the day's survival.

Gold processing is only by water separation. There are no mills and only the water guns and washing area where miners separate gold particles from the soil are found. With no processing mills, companies proudly say they do not use chemicals like cyanide or heavy metals like mercury at all. Hence, it remains a question for the fact-finding mission what turns the water in the mine ponds blue-green. The question of chemical use will only be answered after a chemical test is conducted with the water sample taken by the mission.

Around 50% of gold yields is wasted because of the crude processing yet ninja miners are often chased away whenever they scavenge. The mine sites have provided quicker source of money for the ninja miners.

Children stop going to school, in some mine sites like in Zaamar and Khongor. Prostitution is visibly present in the mining areas.

Safety for the mine workers and of the ninja is left up to them. Gers (traditional houses) for the mine workers are all around the mine camps.

Potable water supply is hardly accessible and exposure to polluted water is evidenced by skin rashes and diseases of people around the mine sites and in dead livestock which are believed to have drunk from polluted water sources. Respiratory diseases are also observed in people.

Noise caused by the non-stop earth-moving equipment truly breaks the countryside serenity and beauty.

Political question and some recommendations

Why such destruction in its physical and social sense is happening, is a big political question to the Mongolian government. For as long as mining is done in the framework of profit and monopoly, no real benefit will reach the people. By the time mines close, herding as the long-proven sustainable livelihood of the Mongolian people will be impossible by then.

The Mongolian government has to review its mining policies, ensure safeguards for the environment and people's livelihoods and make mining most beneficial to the people and not to mining corporations. The Mongolian government should heed people's resistance to mining and should order the immediate closure of those mines. Rehabilitation should follow

right away. Government should also ensure just compensation for damages caused by mining companies to people's livelihood, land and resources.

The people of Mongolia should engage into debates as to whether mining should be allowed or not.

What is inspiring is that there is local resistance, and awareness on the amount of destruction caused by mining is reaching the population. The added challenge for women's and people's or civil society organisations is to develop an effective information and education system regarding mining; strengthening and broadening formations/movements against destructive corporate mining; relating the mining issue with water, food and other real people's issues in Mongolia; build linkages in the national and international levels and talk about an alternative to destructive corporate mining. In such processes, the women and the youth should participate stressing the role they play in all spheres of development.

One team of the mission learned about this Mongolian value – "leave stones where they are". Gold is a mineral found in a precious stone called ore. Let us put across this Mongolian value to mining companies and to the national government of Mongolia.

International Women and Mining Network (RIMM) (<http://www.rimmrights.org/>) Northern Dispatch (www.nordis.net)

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