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CSR in the APEC Mining Sector

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Prepared by:
Asian Insitute of Manage-Ramon V del Rosario Sr.
Center for Corporate Social Responsibility
4/F ACCM Bldg, Benavidez corner Trasierra Streets
Legaspi Village, Makati City, Philippines
Telefax: (632) 752-1208
Email: rvrcenter@aim.edu
Website: http://www.rve.aim.edu

Prepared for
APEC Secretariat
35 Heng Mui Keng Terrace Singapore 119616
Tel: (65) 68919 600 Fax: (65) 68919 690
Email: info@apec.org Website: www.apec.org

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PREFACE

The Asia Pacific Economic Council (APEC) recognizes the important role of the mining industry in the economic growth and development of the region. The mining industry represents an important part of the economic structure of the Asia Pacific region. APEC economies such as Australia, China, Indonesia, Papua New Guinea, the Philippines and Thailand account for global production volumes such as gold, bauxite, nickel, copper and zinc. China, Japan, the Republic of Korea, Singapore and Chinese Taipei are also the largest global consumers of minerals.

However, the economic potential of mining has not been maximized due to the environmental damage brought about by unacceptable mining practices. Thus, many communities in the different economies in the APEC region have resisted the setting up of mining operations in their areas. The challenge, therefore, lies in finding ways to balance the benefits among the different mining stakeholders.

Mining is a double-edged sword. The industry promises vast sources of economic growth; but, when not managed properly, mining operations can have devastating effects on the environment and the community. One key practice that does promote and enhance sustainable development is Corporate Social Responsibility (CSR). CSR supports the principle that business can achieve economic objectives in a manner that also addresses social and environmental concerns.

The preceding observations were what led the Asian Institute of Management RVR Center for Corporate Social Responsibility (AIM RVR Center) to propose a capacity building project for implementing sustainability development initiatives in the mining sector through the development of frameworks, and the documentation of best practices and effective guidelines among APEC economies. This project hoped to encourage cooperation among the different stakeholders, thus indirectly removing impediments to trade and investment, and strengthening regional economic integration.

Specifically, this APEC funded project had several objectives, namely, (i) to educate mining firms and other stakeholders (government and communities) on relevant CSR issues and practices in order to increase awareness on best CSR practices in mining operations; (ii) to provide information and logical frameworks that will help practitioners effectively implement CSR programs in the mining industry; (iii) through the frameworks and cases, to enhance the effectiveness of local and central government agencies in formulating regulatory policies and operational systems with regard to implementing and promoting sustainable mining programs; and (iv) lastly, to help develop the capacity of local communities and other civil society groups in effectively communicate and partner with mining operators in community programs.

The project commenced with a Round Table Discussion (RTD) to explore and determine the key issues involved in sustainable mining and to identify possible case leads. The two mining experts for the RTD provided insights on identifying leads that exemplified best practices in CSR mining, from among the different APEC economies. In the course of the case writing, different stakeholders were interviewed including government officials, members of the mining communities, company representatives, and civil society organization representatives in APEC economies.

Aside from the case studies, another main output of the project was the development of a CSR educational framework for the mining sector in APEC. In crafting the framework, a review of related literature was done and two Special Interest Sessions (SIS) were conducted.

The first SIS was held in Manila (November, 2009) while the second was held in Kuala Lumpur (October 2010) during the Asian Forum on Corporate Social Responsibility, an annual regional CSR conference. A mix of mining stakeholders from government, business, and civil society in the different APEC economies attended the SIS.

The first SIS solicited ideas on how to go about the development of the framework. During the second SIS, the final educational framework was presented to get additional feedback. The need for CSR training in the mining sector was emphasized in both of the sessions.

Another component of the educational framework was the recommended training program that would use the suggested management teaching cases. These cases were abridged versions of the case studies on best CSR practices in mining.

The project highlights the strengths, weaknesses, and opportunities to maximize the potential benefits of the industry. It focuses on the regional and local demand for revenues from mining and the governments' challenges in effectively utilizing these revenues. The project had two key insights that became the focus of the educational framework as well as the choice of case studies. First, the key objective of sustainable mining is to ensure that the positive benefits last beyond the lifetime of the mine and that negative impact is either eliminated or minimized. The second key insight is that the central challenge is the timing mismatch between the revenue streams from mining operations and the revenue demand for minimizing negative impact (mine site rehabilitation).

Hence, the most effective approach to sustainable mining involves cooperation among the different stakeholders, including mediating stakeholders. For example, government is one of the largest beneficiaries of mining because of the revenues generated from mining operations. However, it also plays a large role in ensuring responsible practices as well as managing the timing mismatch. It must therefore find ways to equip the stakeholders with the necessary regulation, knowledge and tools to function properly.

Mining companies, on the other hand, need to assure the rest of the stakeholders of their operations' sustainability. While most of the companies have expressed their willingness to do so, legacy problems from other mine sites, including those of other companies, make this extremely challenging. Moreover, there seems to be room for information exchange concerning methods for addressing common concerns. Close coordination with the community in developing programs and activities can facilitate the overall process towards attaining sustainability. Mediating stakeholders such as the NGO's, the church or media can either aid or impede this process.

As the project overseer, I would like to acknowledge the participation and cooperation of the individuals involved in the success of this project. On behalf of the AIM RVR Center, I would like to express my sincere gratitude to Catherine Coumans of Mining Watch, Canada and Graeme Deegan of Resources Advisory FFY Ltd (Australia), who acted as experts during the initial RTD.

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Prof. Felipe B. Alfonso
Project Overseer

CORPORATE SOCIAL RESPONSIBILITY IN THE APEC MINING SECTOR

INTRODUCTION

The Asian Institute of Management Ramon V. del Rosario Sr. Center for Corporate Social Responsibility is the proponent of the project entitled "Capacity Building of Mining Stakeholders in APEC Economies on Corporate Social Responsibility" under the Asia-Pacific Economic Cooperation (APEC) Human Resource Development Group.

Background

In 2004, the APEC ministers' meeting on mining reported that the Asia Pacific Region was the world's largest producer and consumer of minerals. APEC member economies were reported responsible for the global production of minerals, as follows: 64% of gold, 50% of bauxite, 66% of nickel, 82% of copper and 75% of zinc.[1] The mining investments of APEC member economies amounted to US$51 billion, which was equivalent to 49% of mining investments worldwide.[2] These statistics suggest the importance in and impact of the mining industry on APEC economies. In 2007, APEC created the Mining Task Force in recognition of the greater role played by the mining industry in the economic growth and development of the region.

Global industry records, however, also revealed instances of environmental degradation and human rights violations resulting from mining. Some member economies that have hosted significant mining activities and reaped economic benefits from them are believed to have done so at the expense of the environment and in some cases, of the local community. Irresponsible mining practices, in particular, are considered to have irreversibly damaged the mining industry's reputation such that several communities increasingly resist the prospect of hosting mining operations. Thus, the economic potential of mining is not maximized, leading to the sector's failure to create significant impacts in some cases. There is a need to find ways to balance the positive and negative impacts of mining for all stakeholders.

In APEC economies the challenges facing the mining industry encompass three dimensions: economic, environmental and social. One of the key practices that could promote and enhance sustainability is Corporate Social Responsibility (CSR). In line with sustainable mining objectives, CSR supports the principle that business is about meeting human needs. For the mining industry, it needs to maximize economic benefits while keeping environmental and social costs at a minimum. Mining activities should contribute to the host communities in various ways, among them, safeguarding human rights, enhancing the people's quality of life, and ensuring the sustainability of the environment for the duration of mining operations and afterward, i.e., following the cessation of mining operations.

Mining stakeholders do not exist in silos; thus, mining companies need to interact with their host communities, which determine the company's social license to operate. For its part, the government needs to balance the interests of the community and the mining company, to ensure that the benefits from mining could be maximized. It follows that the success of sustainable mining requires the partnership and interaction of the stakeholders. These stakeholders can use their relative strengths and position in their relationships with other organizations to promote positive outcomes.

Scope and Objectives

The project directly addresses the objectives of APEC's Capacity Building Network, which focuses on "promoting human capacity building and strengthening markets through improved productive processes, enterprise productivity and adaptability, management and technical skills development, and corporate governance in public, private and voluntary sectors by enhancing the understanding of sustainable development in the mining industry aimed to encourage human development beyond mining activity."[3]

Mining yields great economic benefits, given the large amount of mineral deposits in the APEC region. However, mining also gives rise to environmental (i.e. disruption of local flora and fauna) and social (i.e. the displacement of local communities, disruptions in local livelihood sources such as agriculture) concerns that need to be balanced with economic benefits, to ensure its sustainability. To ensure that these factors are balanced, a multi-stakeholder approach is necessary. Thus, the project aims to do the following:

1. Educate mining firms and other stakeholders on relevant CSR issues and practices, thus increasing awareness of the best CSR practices of mining operations and effectively implement CSR mining programs;

2. Enhance the effectiveness of local and central government agencies in formulating regulatory policies and operational systems with regard to implementing and promoting sustainable mining programs;

3. Develop the capacity of the local community and other civil societies to effectively communicate and partner with mining operators with regards to community programs.

This capacity building project hopes to enhance the sustainability and information exchange of the mining sector in the APEC region through the development of a CSR educational framework and teaching materials that will eventually be used for education and training.

The following are the outputs of the project:

1. Educational CSR materials for APEC economies. The teaching materials include an educational framework on CSR for the mining sector of APEC. These materials will be used to educate and train the mining stakeholders.

2. Six case studies on selected mining firms operating in APEC economies. These will highlight the best CSR practices and will provide additional ideas on CSR implementation for the mining stakeholders of APEC economies.

In the long term, the materials developed can help mitigate the possible negative impacts of mining on the community by promoting more responsible operations among the mining companies. For one, the materials will equip stakeholders with the proper knowledge and skills to ensure compliance with the standards of responsible mining. The mining stakeholders (i.e., mining companies, community and government) will hopefully be transformed into effective and active partners for growth and development as they will have the capacity to monitor and ensure the conduct of responsible mining practices in their respective areas.

The beneficiaries of this project are the government offices who deal with the mining industry; the management of mining companies (both local and international), and the communities where mining activities are present, primarily in the developing economies of APEC. Through this project, the developing economies in APEC will have access to

educational materials on CSR which will help the mining industry stakeholders optimize the limited resources allotted to the implementation of CSR programs. After all, the promotion and proper implementation of CSR programs in developing countries are seen to be ways of minimizing the social and environmental risks posed by mining operations and of maximizing the economical benefits arising from the same.

METHODOLOGY

As mentioned previously, the output of the project is a framework for CSR in Mining including teaching cases and case studies. The following steps were taken to prepare the materials:

Round Table Discussion

Two international experts on mining from Canada and Australia were invited to present the key issues and current best practices on sustainable mining to representatives of the different mining stakeholder groups present during the RTD. The purpose of the RTD was to solicit more information from various mining stakeholders for the development of the educational framework and to gather suggestions regarding possible case topics vis-a-vis the APEC economies.

Special Interest Session

Two Special Interest Sessions (SIS) were organized, one in 2009 and another in 2010. During the SIS session that focused on CSR in mining, the findings of the research team presented for comments. The SIS sessions were attended by representatives of the different stakeholder groups. The research team was able to gather the inputs of the stakeholders in terms of issues faced by the mining industry in terms of CSR.

Case Study Development

The case studies were selected based on the literature review of literature conducted as well as the recommendations of the different stakeholder groups during the RTD.

For the development of the case, writers conducted key informant interviews and field visits to gather the necessary information. Different stakeholder groups including company representatives, government officials, and members of the community and non-government organizations (NGOs) were included in the interviews to ensure a balanced perspective on the CSR practices of the company.

The field work complemented the review of related literature as it provided real-life examples of CSR in action. It also allowed the researchers to hear the side of practitioners regarding the issues that they faced in implementing CSR programs. This information was useful in designing the education framework since it allowed issues to be prioritized, based on the perspective of the different stakeholders.

Educational Framework Development

In order to develop the educational framework, the researchers did a preliminary review of related literature. The output of the RTD and SIS sessions were also taken into account in crafting the framework. Given that the attendees were mostly practitioners, they had the knowledge as to what factors are needed to be considered in the framework for the objectives of the project to be achieved.

CONTENTS

This paper will discuss the following:

1) The Mining Sector- This section will give a brief background on the mining sector including the factors that differentiate the mining industry from other types of business such as the mine-life cycle. The business CSR for CSR in Mining is also discussed.

2) Developing a CSR Strategy- A framework on how a CSR Strategy is formulated is discussed. The focus of the framework is on identifying the company's footprint and stakeholders vis-a-vis the company's assets and competencies in developing a CSR program.

3) The Economic, Social and Environmental Impacts of Mining – Both the positive and negative impacts of mining as well as other concerns associated with the mining industry are taken up.

4) The APEC Mining Industry– This section gives a background on the APEC Mining Industry as well as the CSR initiatives of different stakeholder groups relevant to the mining industry.

5) Framework for CSR in Mining – This portion presents the framework developed through the research.

6) Summary and Conclusions

The mining industry has the potential to positively impact the economies of many developing nations that have different mineral deposits. In 2009, the global metals and mining industry was valued at US$1,661.2 billion, which value was expected to increase to US$3,328.7 billion by 2014. The Asia-Pacific Region accounts for 67.3% of the industry's value worldwide.[4]

However, the potential of mining in developing countries has not been fully harnessed and has in many cases caused great harm to host communities and the environment. Still, this does not mean that mining should be foregone, especially because of the importance of minerals in our everyday lives. For mining to create a positive impact on developing economies, there are several aspects that need to be taken into consideration, namely: social, environmental and economic. These aspects need to be balanced to ensure that the benefits society derives from mining can adequately compensate for its negative impacts. Developed countries such as Australia and Canada show how mining can propel a nation to economic development even as these countries have themselves experienced problems with their mining industries (e.g., abandoned mines).

By their very nature, mining operations have immediate environmental and social footprints, especially at the operation stage. In open-pit mining, for instance, a visible change in terrain is evident. Further, mining involves the extraction of non-renewable resources.

The negative environmental impacts associated with mining include pollution; the disruption of local terrain, some cases of which lead to soil erosion; the disturbance of local biodiversity and acid mine drainage. Some of the negative social impacts associated with mining include human rights abuses, displacement of the local community and the dependency of the local community on mining operations. As for mining's economic impact, despite the current and potential revenues from mining, there are questions as to whether the benefits are enough to compensate for the negative impacts of mining on the environment and the community.

But mining also has positive impacts, among them the payment of taxes, employment generation, community development programs, the growth of local businesses, the payment of royalties to indigenous groups and the building of infrastructure such as roads. Nonetheless, the distribution of taxes from mining is at times questioned because, oftentimes, a larger share goes to the government than to the affected community.

Inevitably, through the years, mainly because of its inability to minimize its social and environmental footprints, the mining industry has been tagged as irresponsible. In some instances, the community and NGOs have rallied against mining companies to the extent of disrupting mining operations. Also seen to aggravate the negative reputation of the industry are the stoppage of operations, mine tailings spills, environmental degradation and human rights abuses.

Confronted by such a scenario, the mining industry, through the mining corporations, has seen it fit to act in a more socially responsible manner, to ensure that it can obtain not only government support and licenses, but also the social license to operate. CSR practices are important to ensure that mining companies mitigate their social and environmental footprints in a sustainable manner, so as to guarantee that the benefits from mining exceed cost. CSR practices include community development and going beyond compliance where local laws are concerned, and especially, that which is embedded in the company's operations such as supply chain management (i.e. training local suppliers to improve their ability to deliver goods) is important to ensure that mining companies mitigate their social and environmental footprint in a sustainable manner to ensure that benefits from mining exceed the cost.

THE MINING SECTOR

Mining refers to the process or business of extracting ore or minerals from the ground. It is generally conducted using three alternative methods: open cast (i.e., open-pit or surface mining), underground (i.e., tunneling) and fluid mining (i.e., through wells).[5]

As mentioned previously, a unique feature of mining is the circumstance that mineral deposits undergoing extraction are non-renewable. This means that mining companies must periodically find new deposits. Also, there is a need for continuous technology development to ensure the economic viability of mining projects. Over time, a mineral deposit that was once not economically viable could become so because of technological development.

The Mine Life Cycle

Another important aspect to consider in mining is that it follows a particular cycle. The length of operation of a mine varies. The life of a mine can last from five years to over a hundred years, depending on the amount and economic viability of the mineral deposits. Over this period, the mine goes through different stages of operation, namely: pre-exploration, exploration, extraction, closure and rehabilitation.

In the pre-exploration and exploration stages, the objectives are to identify and assess the mineralized areas to ascertain which areas should be explored. Further exploration is further conducted involving geophysical surveys, geological mapping, drilling and other techniques. If the findings are positive, the quality and quantity of the ore are evaluated to determine if it is economically viable. Feasibility studies are then conducted, inclusive of mine designs, the computation of costs, and determining the potential social, economic and environmental impacts of the site.[6] Measures to mitigate impact are also planned (i.e., by drawing up a relocation plan and infrastructure initiatives).

It is also during the exploration stage that applications for the necessary government permits are undertaken by the company. In cases where the economy requires the consent of the local community for operations to be possible, mining companies start their initial engagement.

During the initial operation phase, the company focuses on constructing the mine site and the necessary infrastructure.[7] This is then followed by actual operations composed of the extraction, processing, production and transport of mineral products. Aspects such as water quality and quantity, biodiversity, human rights, wildlife conservation and wastewater management, are considered in order to mitigate socio-economic and environmental impacts.

Meanwhile, it is during the operations stage when the company can implement long-term community development programs. In some countries, the engagement of the community is important for the company to be able to continue its operations.[8]

Closure is the last phase of mining operations. This can be divided into three main phases: 1) decommissioning, which involves dismantling the infrastructure; 2) reclamation, which means restoring the disturbed areas; and 3) care and maintenance, which focus on monitoring the success of reclamation works and the long-term treatment of necessary materials (i.e., mine tailings). Emphasis at this point is put on returning the land to its original state to the maximum extent possible, so that it could still be of use to the community.

Business Case for CSR in the Mining Sector

Given the nature of the mining industry, it is bound to make an impact on the society where it operates. In order to minimize their negative impact, the mining companies should act in a socially responsible manner. CSR is critical to the mining sector precisely because of the need to mitigate the negative impacts of mining. The mining industry, as in the case of Canada, is also realizing that there is a positive link between profitability and environmental/social performance.[9]

Aside from minimizing mining's negative impacts, CSR also benefits the corporation through improved community relations, and the acquisition and retention of the social license to operate. Obtaining a social license to operate is a key motivation for some companies, like De Beers, for example. De Beers signed an internal benefit agreement with a local

community because it recognized that community support was important to the company's continuous operations.[10]

In corporate documents, firms have specifically acknowledged the need for a social license to enable successful project development. A social license is also important for a corporate reputation to be established, which in a way is also linked to its acquisition and retention of its social license to operate. A negative reputation can make it more difficult for a mining corporation to enter a new community.

Other benefits of CSR include improved relationships with the community and the creation of a better source of necessary goods and services for the company.

DEVELOPING A CSR STRATEGY

Defining CSR

Although there is no single definition for CSR, it is generally focused on the concept of a business' operating in a responsible manner by taking into consideration the needs of its internal and externals stakeholders, vis-à-vis the impacts of the business. The basic social responsibility of a corporation encompasses the economic, legal, ethical, and discretionary (or philanthropic) expectations that society has of an organization at a given time. (See Figure 1.[11])

FIGURE 1: THE PYRAMID OF CORPORATE SOCIAL RESPONSIBILITY

Economic responsibilities, which is one of the main obligations of a company is based on the idea that companies were created to produce goods and services to address customer needs and to earn a profit. This is the basic premise of a corporation and thus forms the bottom of the pyramid. It is followed by the legal responsibilities or obligations of companies to obey the law, which society expects them to do.

Ethical responsibilities, on the other hand, consist of standards, norms, or the expectations of stakeholders that are viewed as fair, just, and in accordance with their moral rights. The apex of the pyramid is represented by the philanthropic or discretionary responsibilities of companies. This entails contributing corporate resources to good causes and humanitarian programs. Unlike ethical responsibilities, philanthropic responsibilities are voluntary. Firms not engaging in philanthropic activities are not deemed unethical despite society's expectation that companies should engage in such activities.[12]

The World Business Council for Sustainable Development defines CSR as "the continuing commitment by business to behave ethically and contribute to economic development, while improving the quality of life of the workforce and their families, as well as of the local community and society at large."

For its part, the World Bank defines CSR as the "commitment of business to contribute to sustainable economic development, working with employees, their families, the local community and society at large to improve the quality of life, in ways that are both good for business and good for development." The International Organization for Standardization (ISO) in its draft working papers defined CSR as the "balanced integration of the social, economic and environmental issues with the goal of benefitting persons, communities and the society in general."[13]

The unifying thread of these definitions is their being centered on the recognition that business has responsibilities beyond profit and beyond the needs of its shareholders. That is, business needs to take into consideration the needs of its wider stakeholder group, which can include the local community, government and the environment, among others.

Furthermore, CSR encompasses a broader notion that is linked to the company's business approach: it considers the social, environmental and economic impacts of corporate performance.[14] CSR needs to go beyond charitable donations, although philanthropy may be part of the CSR strategy of the company. Still, it is also important to note that:[15]

> The true power of Corporate Social Responsibility cannot be harnessed until it is built into the basic business model of the enterprise. A company's CSR strategy must be as focused and integrated into its overall corporate strategy as its marketing, operating or financial strategy. Until this happens, CSR will be one of those initiatives that exist on the fringes of the enterprise, requiring extra effort to nurture, subject to extinction at the whim of fortune or changing management priorities.

In embedding CSR into business operations, it is important to look at the operating environment of the company. This includes looking at its footprint and stakeholders. In terms of CSR, the primary objective is to minimize the negative impact of business operations while maximizing its positive effects. Aside from looking at the operating environment it is also important to look at the key assets and capabilities of the organization so that the company has an idea of what competencies it can utilize in embedding CSR into its business. (See Annex 1.1.)

THE ECONOMIC, SOCIAL AND ENVIRONMENTAL IMPACTS OF MINING

Social and Environmental Impacts

There are various environmental and social impacts associated with mining. Environmental and social impacts can be divided into the following categories:[16] waste management issues, impacts on biodiversity and habitat, indirect impacts, poverty alleviation and wealth distribution.

Disposing of large quantities of waste is a major challenge for the mining industry and can have significant impacts on the environment. The said environmental impacts are in most cases more pronounced in open-pit mines than underground mines that produces less wastes. [17]

Furthermore, mining operations can cause water pollution, which can reduce water quality and lead to the degradation of marine ecosystem, as a result of sedimentation, acid mine drainage (AMD) and metals deposition. [18]

It is a challenge for mines to minimize the disturbance of organic materials and ensure it does not end up in nearby bodies of water. Soil erosion such as from waste rock piles can be carried into nearby streams in the event of heavy rainfall and increase sedimentation in nearby bodies of water. Acid mine drainage is another serious environment impact of mining.[19] AMD occurs when "sulfide-bearing minerals, such as pyrite or pyrrhotite, upon exposure to oxygen or water, produce sulfuric acid". Although natural oxidation occurs in undisturbed ore bodies, this happens slowly and poses little threat to marine life. However, mining operations increases the rate of chemical reactions.[20]

Most mining operations use metals, reagents or other compounds to process minerals. Cyanide and mercury are some of the commonly used ones. The release of metals into the environment can also be triggered by acid drainage or by accidental releases from mine tailings impoundments.[21] Thus, these wastes need to be treated properly. In the case of Canada, there are at least 10,000 abandoned mines.[22] The estimated cost of cleaning up some of these abandoned mine sites amount to at least US$1 billion. The Mining Association of Canada itself has estimated the cost of abandoned mine remediation in the economy at US$6 billion. In the United States, the Mineral Policy Center puts the cost of abandoned mine remediation for the economy at between US$32 and US$72 billion. At the global level, representatives of the mining industry themselves have placed the costs of closing and rehabilitating old and abandoned mines to be in the "trillions" of dollars.[23]

In terms of biodiversity, one of the impact of mining is the removal of vegetation, which alters the availability of food and shelter for wildlife. Furthermore, due to other environmental impacts of mining previously mentioned such as AMD, the composition of species in a particular area could change. This may also be attributed to the change in terrain due to mining operations, which is inevitable especially in open-pit mining. Nonetheless there are companies that have successfully rehabilitated land formerly used for mining and that have turned it into something productive. One such company is Philex Mining, which was able to turn a mine tailings facility into a bamboo research facility.[24]

Aside from these environmental impacts, mining also has corresponding social impacts. Mining requires access to land and natural resources, such as water, and may thus compete with other uses, causing social displacement. Based on a study by the Mining, Mineral and Sustainable Development (MMSD) displacement may result in serious social problems, including marginalization, food insecurity and loss of access to common resources and public services, and social breakdown.[25]

Although mineral exports may make up a significant share of a economy's exports, mineral development does not always boost an economy's economic growth. Even when mineral development results in economic growth, the benefits are not always equitably shared, and local communities closest to the source of the mineral tend to lose out. In many cases, although the local community bears the burden of mining operations, the bulk of the mining revenues go to the government. Still, there have been some cases when mining produced a "boom town" effect.[26] Regardless, once the mining company ceases operations, the social impacts on employee households, communities and regions are "mostly severe and long term," leaving thousands of people impoverished. That this is so has given rise to the issue that while mining may have generated revenue, whether this revenue can compensate for its social and environmental impacts, or not, is debatable.

The scale of mining as an industrial activity also tends to marginalize the significance of other activities. New towns and populations connected with mines often displace local and indigenous cultures that have lived on the land for centuries. However, over the years, many countries have implemented laws to ensure the protection of aboriginal rights. The problem, however, lies in the limited knowledge of indigenous communities regarding these matters so that in implementation, it may not always hold true.

Furthermore, the energy demands of mining and refining means it is necessary for mining operations to put up new dams, transmission lines and power plants. New and enlarged roads change the landscape and forests.

The social costs of mining include impacts on health in both the community and workplace. They may include physically disabling injuries among miners; changes in leadership and social relationships; the impacts of boom-and-bust economic cycles; the destruction of indigenous livelihoods and other distortions in the local economic base; and dramatic changes in regional cultures.

Economic

The economic impacts of mining are mostly in the form of revenues and royalties, as well as employment and contributions to local business development. However, in most countries, the bulk of mining revenues goes to the government rather than the host community. There is also a question regarding local government's capacity to utilize revenues from mining adequately.

Other Concerns

Other broader concerns brought on by mining and which need to be highlighted include the following:

Public Participation: Community participation is an essential ingredient of any extractive project that aims to promote sustainable development. Participation can minimize unintended negative externalities and assist in creating projects that truly raise the quality of life of the community. Transparent participation from the earliest practical time can facilitate the tailoring of project design to the priorities and needs of affected communities.[27] However, although there are laws in place in developing countries, the implementation of these laws to ensure social inclusion can be weak.[28]

Effective Impunity: There is a problem in terms of effective impunity. A study done by John Ruggie of the United Nations points out how the difference in laws can cause problems in terms of holding mining companies accountable for their actions. For instance, while a mining company may have been held accountable for mine tailings spills in their home economy, this may not necessarily be the case, especially when the company operates in developing countries where the laws may be different. Moreover, the implementation of laws may vary across countries.

Revenue Stream-Transparency and Accountability:[29] Mining stakeholders are more concerned about where revenues from mining are allocated, rather than with how these are spent because of the focus on sustainable development. For the mining industry, transparency with regard to revenues paid to local and regional governments is extremely important. It is in this aspect where social conflict is most likely to erupt, and where mining companies are under the most pressure to demonstrate that they are contributing to broader societal well-being at these levels. This view was echoed very strongly by all host

governments, civil society and mining company representatives interviewed for this report. Related to this issue is the need for mining companies to report on their voluntary contributions for the development of host countries at the local or regional level.

Furthermore, CSR is an important, recent development affecting not only the mining industry, but also international corporate self-regulation and accountability, in general. "In addition to gaining hard currency from taxes and royalties, benefits from mineral development should include employment, infrastructure such as roads and hospitals, linkages upstream to industries that supply goods and services or downstream to industries that process mineral outputs, and technology transfer."[30]

However, in some countries mineral activities "have not brought sustained economic development. Sudden wealth may have detrimental effects on social and political life, leading to or supporting corruption, authoritarian government, human rights abuse, or armed conflict." Thus, there is a need for better management of resources generated from mining operations. A key challenge now for many countries is to develop policy to ensure that revenues from mining create lasting benefits for local communities and the broader population. [31]

Sustainability Reporting: Most mining companies focus on the environment and the community. In terms of the environment it is in, using the best technology available to minimize wastes and to ensure that operations are more efficient is being done. Aside from using the best technology, mining companies focus on ensuring that their operations do not negatively affect the environment. They see to it that preventive measures are in place to prevent mine tailings incidences.

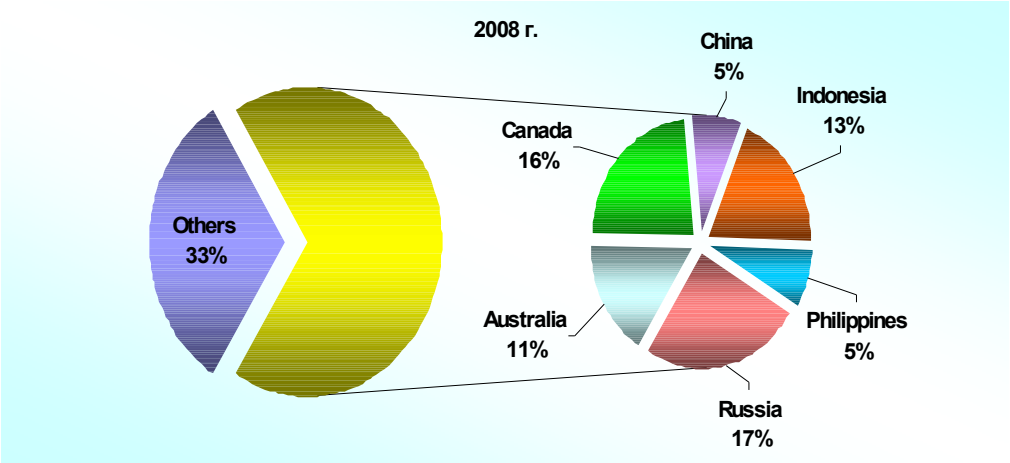
As for the community, the focus is on providing livelihood, education, health and safety. The provision of livelihood varies depending on the community at hand. As for education, the initiatives focus more on providing scholarships and donating funds to schools. As for health and safety, the initiatives are more internally focused in terms of ensuring the safety of the workplace for the employees.

APEC MINING INDUSTRY

The Asia Pacific Economic Cooperation (APEC) includes 21 economies, namely, Australia, Brunei Darussalam, Canada, Chile, China, Hong Kong, Indonesia, Japan, Republic of Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, the Philippines, Russia, Singapore, Chinese Taipei, Thailand, the United States of America and Viet Nam.

Given the size of the mining industry in the APEC region, it has great potential to impact the economies of developing nations in the region. Among the members of APEC according to the *Mineral Yearbook of 2006*,[32] Australia and China were among the world's leading mineral producers. Other significant mineral producers in the region were Indonesia, Papua New Guinea, the Philippines and Thailand. [33]

The scale of production of APEC member economies was further emphasized by the presentation of Lev Chesalov entitled the "Review of the Mining Sector Performance in APEC with Analysis of Short-Term and Long-Term Problems and Prospects," presented during the Conference on Sustainable Development of Mining Sector in APEC in July 2009. According to Chesalov, APEC member economies are responsible for the following global production volumes: 64% of gold, 50% of bauxite, 66% of nickel, 82% of copper and 75% of zinc. (See Figure 2.)



Source: Based on the presentation of Lev Chesalov during the APEC Mining Conference in Singapore (23-24 July 2009)

FIGURE 2: MINERAL PRODUCERS IN APEC ECONOMIES

The APEC region also includes some of the largest consumers of minerals, especially with the continuous increase in consumption of minerals by China and resource-poor industrialized countries such as Japan, the Republic of Korea, Singapore and Chinese Taipei.

In 2005, in particular, the APEC region was the largest consumer of mineral products, accounting for more than 70% of the global consumption of coal, iron ore and tin.[34]

In addition, over the years, the amount of investments in mining in the APEC region has been increasing. Mining Activities.[35] Mining investments in the region amounted to US$51 billion, translating to 49% of total mining investments.

Exploration activities in the Asia and the Pacific region increased in 2005 viz. the 2004 levels. The 2005 proposed budget allocations for Australian exploration activities increased by 18% to US$616 million from US$522 million in 2004. Similarly, the 2005 budget for the Pacific region countries (excluding Australia) increased by 35% to US$210 million in 2005, from US$156 million in 2004.[36]

Mineral exploration in China has increased ever since the economy opened its mining sector to foreign investment. In 2005, some 83 foreign companies invested US$130 million on mineral explorations in the economy, compared to only seven (which invested US$10 million) in 2002. Of the countries that invested in China in 2005, 45 were based in Canada, 14 in Australia, and seven in the United States. The large increase in demand for minerals by China's industries increased domestic minerals exploration activities and brought about a larger number of foreign mineral exploration agreements.[37]

Based on the above-mentioned figures it is clear that the mining industry plays a large role in the economic development of the APEC region, inclusive of the developing economies in the region. Developed countries such as Canada and Australia have benefitted from the development of their mining industries. To date mining continues to contribute significantly to the GDP and exports of these countries.

The Operating Environment: CSR-Relevant Laws and Initiatives

There is a huge proliferation of codes and standards which involve various mining stakeholders (government, communities, business, etc.); but whether these codes and standards have been effective, and to what extent they tackle the problem need to be addressed. Many of these codes and standards are not specifically adapted to mining and the mine life cycle. A number also fall short of international standards, especially in terms of human rights and ensuring the prior and informed consent of indigenous communities. They also fail to provide grievance procedures and those that do so are not effective.

Therefore, although there are CSR guidelines, these voluntary guidelines do not assure compliance with best practices. Given its voluntary nature, there is no guarantee that companies would adhere to these codes. There are also problems regarding the continuity of compliance to these codes, especially if a change in leadership in the company occurs, or if the company is acquired by another. Furthermore, the guidelines do not provide sanctions.

The voluntary codes are not enough to halt human rights abuses and severe environmental degradation is increasingly acknowledged. CSR is a good idea, but its implementation is uneven and uncertain such that there is a need for best practices to be enforced through regulation via accountability mechanisms like certification processes.

There is also recognition of weak governance, while the lack of international regulations and international legal recourse has effectively led to impunity.

In addition, benefits to local communities cannot be appreciated in the absence of a full accounting of costs associated with the mining life cycle. Related to this is the need for greater transparency with regard to the risks which communities face from a potential project. What is important is for the benefits to exceed costs.

To ensure net benefits for the affected communities, all costs are need to be accounted for: social, environmental and economic. One difficult aspect to take into consideration but which needs to be accounted for is natural capital. If a river is going to be diverted, for instance, the value of the ecosystem in terms of its uses now and in the future, should be considered.

International Initiatives

The wide diversity of international instruments and management tools related to CSR help publicize good environmental and social practices. They measure social performance and help to adequately manage different related aspects. They include multilateral organization led initiatives such as the UN Global Compact, reporting initiatives such as the Global Reporting Initiative (GRI), and voluntary codes such as the Extractive Industry Transparency Initiative (EITI).[38] (See Annex 1.5.)

Corporate Initiatives

The self-regulation and voluntary initiatives adhered to by mining companies have been applied more often in recent years. Due to these initiatives, the companies elaborate on and apply private codes of conduct that they commit to respect and that constitute clear behavioral guides. The codes of conduct reflect the commitment of a company, for instance, to certain values considered important by the company and the society as a whole. The codes' aim is to complement the norms, policies and laws applicable to each activity, without substituting for them.

Codes of conduct typically establish guidelines for issues including child labor, forced labor, salaries, benefits, working hours, freedom of association, health and security including environmental practices and community investments.

An important aspect to consider is the monitoring and verification of the implementation of the codes of conduct and the procedures that involve corrective measures when a breach occurs. Monitoring and external verification help companies demonstrate that their commitment to corporate responsibility is real.

Mining firms in Canada are increasingly incorporating the social and environmental interests of their stakeholders into their projects, in an effort to become more sustainable. Such initiatives have included negotiating Impact and Benefit Agreements (IBAs). An IBA is a private and confidential agreement negotiated between a mine developer and would-be impacted Aboriginal communities near a proposed mine development. The primary purpose of an IBA is to address the adverse effects of mining activities and ensure that local Aboriginals receive benefits from local developments.[39]

According to LaPierre,[40] past research has paid little attention to the corporate rationales for IBAs. Based on document reviews and interviews with mining executives, this study also therefore investigates the rationales of mining firms that 'over-comply' with legislative requirements by negotiating IBAs or similar types of agreements with communities. The results indicate that mining firms increasingly recognize IBAs as an intrinsic part of the permitting process. When asked, executives regularly identified the negotiation of agreements as "the right thing to do." While this response could be read in ethical terms, a commercial rationale is also clearly present. By building strong relationships with nearby communities, addressing community concerns, and directing benefits to local people, all of which initiatives are explicitly achieved with an IBA, mining firms are maintaining their long-term financial viability, thus their sustainability, within an evolving industry.

Government Initiatives, Policies and Laws

The existing laws and regulations that guide mining operations in the APEC Region can be classified in terms of environment management, social related laws. (See Annex 1.3.)

In terms of environmental management, laws can be classified under the following categories: 1) environmental impact management, 2) decommissioning and rehabilitation, 3) pollution monitoring and control, and 4) others (i.e., continuous monitoring requirement). However, these standards may vary across countries and, if ever the standards are the same, there may be differences in penalties.

- *Environment Impact Management*: includes requirements for assessment reports, environmental protection and biodiversity, resource conservation and required recycling

- *Decommissioning and Rehabilitation*: focused on the pre-approval of mine closure, the assignment of responsibility for rehabilitation, and bonds or funds for rehabilitation

- *Pollution Monitoring and Control*: includes waste management, hazardous waste disposal, pollution laws and spill prevention plans

- *Others*: monitoring agencies or teams and continuous reporting requirements

Insofar as environmental management is concerned, Australia, Canada, Indonesia and the Philippines require environmental impact assessments. As for rehabilitation and decommissioning, Australia and Canada require a bond to ensure the mitigation of the possible negative effects of mining, while the Philippines and Indonesia require the submission of mine decommissioning plans. Some examples of pollution and monitoring control laws are effluent hazard standards, clean air and water acts. Other laws that affect the environmental practices of mining firms include required reporting, with the Philippines, in particular, requiring the establishment of a multi-partite monitoring team.

One thing environmental laws have in common is their focus on environmental impact assessment (EIA). An EIA according to the International Association for Impact Assessment (IAIA) is "the process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made." However, there are criticisms regarding the effectiveness of requiring EIAs. Although assessments are done, numerous factors could still affect the implementation of environmental safety measures that seek to ensure minimal environmental footprint.

Socially relevant laws that affect mining operations, on the other hand, can be divided into the following categories: 1) stakeholder participation, 2) taxes, royalties and the provision of a social development program and 3) the local community. (See Annex 1.4.)

- *Stakeholder Participation*: this includes public hearings and the requisite stakeholder consultations

- *Taxes, Royalties and Provision of Social Development Program*: focus on ensuring that certain amounts of funds would go to the government and that companies spend on environmental and CSR programs

- *Local Community*: includes the protection of aboriginal rights and the human rights act, and stipulates the required free, prior and informed consent of indigenous communities.

In Australia, stakeholders are involved in the evaluation and review processes of projects, while in the Philippines, stakeholder consent is required for mining companies to be able to acquire their environmental compliance certificate. As for taxes, royalties and social development programs in Canada and Australia, a certain percentage goes to royalties. In the Philippines, at least 1% of milling and mining costs should be allocated to social development and management programs that would include the building of infrastructure. Australia, for its part, has a law to protect indigenous people's rights.

Furthermore, there are countries that have become more specific about requiring social development projects. In Indonesia, for example, a law has been passed requiring companies to implement CSR programs; however, there are still no implementing rules for this law. In the Philippines, the Philippine Mining Act of 1995 requires that companies allocate at least 1% of milling and mining costs to social development projects. There are criticisms, however, that, perhaps, 1% is not enough, given the impact of mining operations on the community.

In terms of social related laws, majority of the laws are focused on ensuring the participation of the community and civil society organizations in the approval process. The problem, however, lies in sustaining this system of consultation throughout the process, in order to ensure the protection of the rights of the local community.

Aside from the laws that are in place, there are other initiatives that promote CSR in the mining sector. Government initiatives include CSR strategies and government-led rehabilitation. More specifically,

- In Canada: On 26 March 2009 the Canadian Government announced the adoption of a new CSR strategy named “Building the Canadian Advantage: A CSR Strategy for the Canadian International Extractive Sector”.

- In Malaysia: The government, with other stakeholders, successfully rehabilitated a mining site in Kuala Lumpur. The former tin mining site which was operational for over a hundred years was successfully converted into a tourist resort area.

- In Australia: The Australian Government, through its Department of Resources, Energy and Tourism, developed handbooks on the Leading Practices for Sustainable Development in Mining (i.e., mine reclamation, tailings management and working with indigenous communities)

- In the Philippines: Aside from promoting responsible mining through forums, and other initiatives, the local Bureau of Mines in the CARAGA Region, for example, was helped by the Community Technical Working Group.

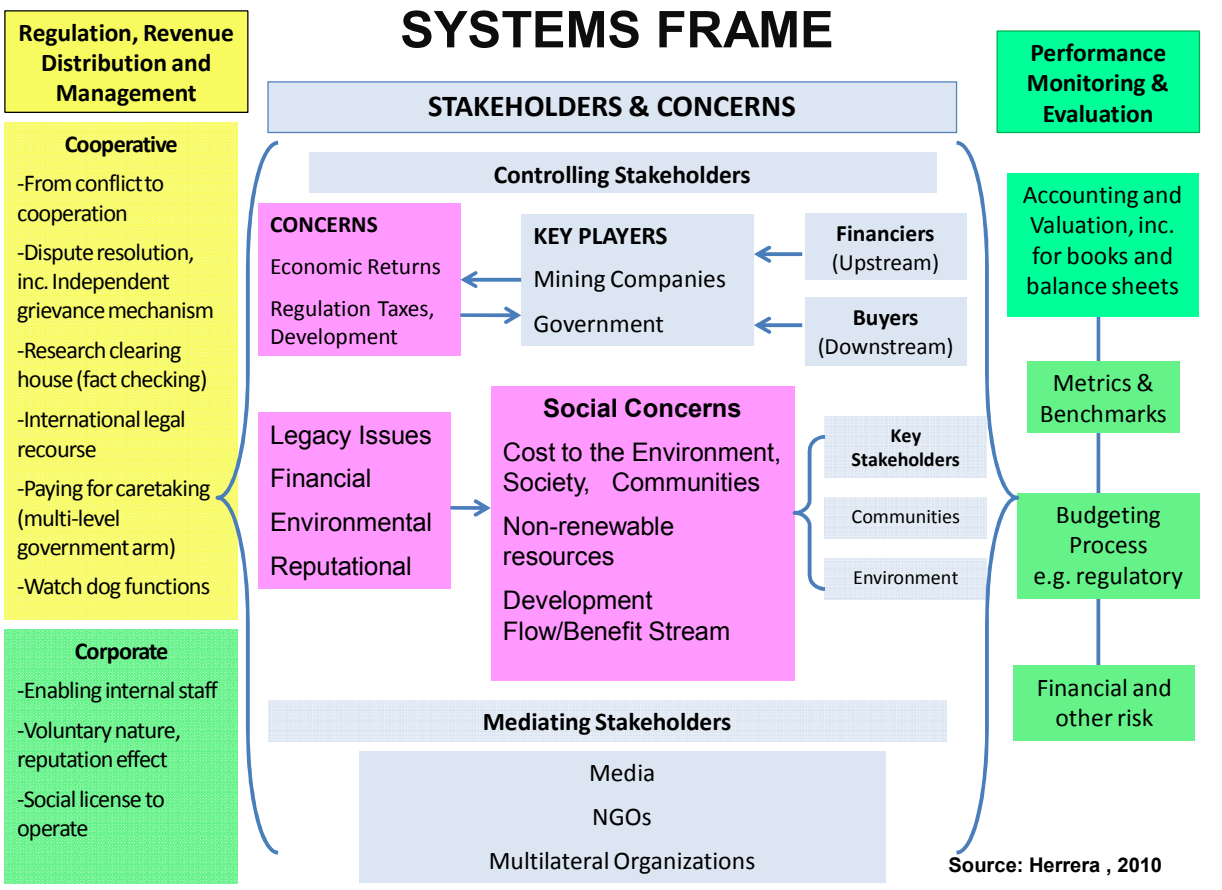
FRAMEWORK FOR CSR IN MINING IN THE APEC REGION

CSR as mentioned previously is basically looking at the “interface between the enterprise and its environment.” This involves looking at the social issues that the company is faced with. The social issues can be identified by understanding the operating environment of the company. This means looking at both the market and non-market environment, and taking into consideration the key assets and resources available to the company.

Aside from looking at the social issues, there is also a need to take stakeholders issues into consideration. Stakeholder issues are identified by evaluating the social footprint of the company. The value chain of the enterprise (both upstream and downstream), as well as other affected stakeholders of the value chain, needs to be considered.

When creating or evaluating the CSR strategy of a company, the different stakeholders and concerns must be studied, because, as mentioned previously, CSR is about the interface between the enterprise and its environment. The prevalent concerns and current resources of the company vis-à-vis its strengths and weaknesses must be evaluated.

The educational framework is focused on identifying the different stakeholders taking into consideration the operating environment that the mining company faces. The framework will basically try to identify the points of interaction of stakeholders and the issues confronting them.



Various stakeholders and concerns come into play in mining operations. The controlling stakeholders or the key players or decision-makers are the mining company and the government.

The mining company as the project proponent can greatly affect its host community and surrounding environment through its operations. As the mining company is a business, economic returns or profits are important to it. If a project is not economically viable, a mining company would not proceed with it, in consideration of its shareholders.

In recent years, financiers and buyers were noted to have become increasingly concerned about the mitigation of the environmental and social footprint of mining companies. The International Finance Corporation (IFC), for example, set several conditions that mining companies had to meet before they could get a loan from the organization. These conditions included social and environmental considerations such as how to deal with local communities.

In addition, mining companies also need to take into consideration legacy issues that affect the prevailing perception of mining operations. Although a different company may have irresponsibly mined in a certain community, its deed is likely to still affect the current environmental state of the surrounding area and the attitude of local residents toward mining per se.

As the regulatory body, the government has the legal mandate to grant or deny access to land. It can also formulate and implement laws to guide mining operations. In this sense, government can play a significant role in ensuring responsible mining.

Aside from its mandate to create and implement laws, the government is also one of the largest beneficiaries of mining because of the revenue it generates from mining operations. Still, there have been criticisms regarding income tax generated from mining companies, particularly with regard to whether enough benefits are gained from it relative to its environmental and social impacts.

Aside from the economic benefits, the framework takes social concerns into consideration. Social concerns include the costs of mining to the environment, society and communities. As mentioned, questions have surfaced as to whether there have been enough benefits from mining, in light of the fact that mineral resources are non-renewable.

Also there is a need to focus on the benefit stream. The host communities are the ones most affected by mining operations. They would suffer the hardest should there be a tailings spill because they are closest to the mine site. In addition, they are also likely to be affected by other associated social issues such as displacement. Often, however, the bulk of revenues generated goes to the government.

The community and the environment are key stakeholders, because as mentioned they are the most affected by mining operations. In terms of social concerns, the immediate community and the environment are expected to suffer the most should the mine not be decommissioned properly once operations cease. Leaks from mine tailings facilities, soil erosion and acid mine drainage are only some of the possible negative effects of mining if a mining company does not mitigate its environmental footprint.

For the community, one of the biggest considerations is livelihood. Mining employs numerous people from the local community and also brings in people from other areas. When a mine closes without a proper closure plan, members of the community employed at the mine site, as well as local businesses that supply to the mine site, would have difficulty sustaining their livelihood unless alternative plans will have been made.

Aside from the key stakeholders, the framework also identifies mediating stakeholders composed of media, NGOs and multilateral organizations. Although mediating stakeholders are not directly affected and have no direct control over mining operations, they can influence mining operations; therefore, they are classified as key stakeholders. An example is media in the case of Rapu-Rapu Mining. Although there were some mine tailings that went into the rivers, the damage was not too extensive according to DENR experts. Due to the various newspaper articles that came out there was strong anti-mining support from different civil society groups.

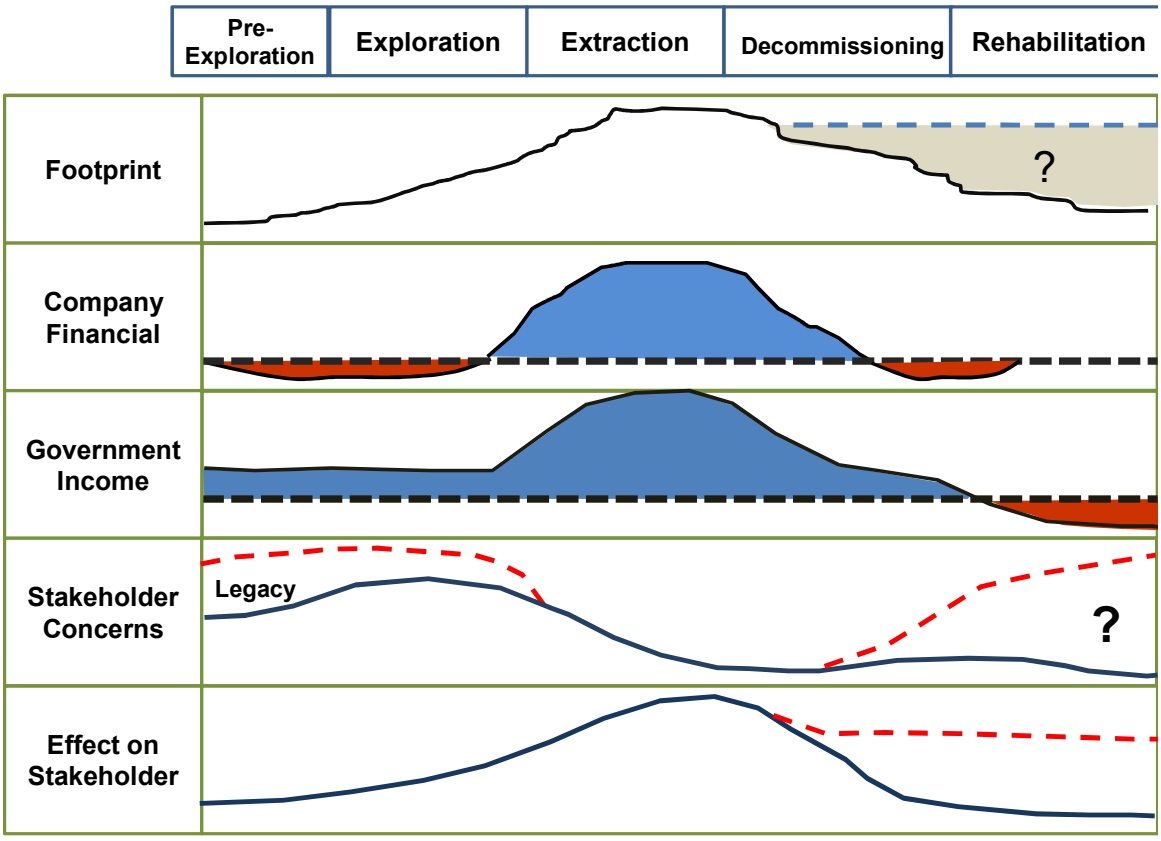
Since NGOs advocate for environmental and social issues, they can pose a challenge to mining operations. But because of their expertise, NGOs can also serve as a partner of mining companies in the implementation of their CSR programs.

As for multilateral organizations and other international organizations, there have been efforts to promote more responsible mining practices through conferences, frameworks on best practices and the development of guidelines.

Aside from the stakeholders and concerns other factors highlighted are regulation and distribution management, and on monitoring and valuation. Although a company may operate in a responsible manner, if the benefits from mining are not distributed accordingly,

then the sector may not really promote local development. Related to this are the problems associated with monitoring and valuation. Measuring economic gains is easy; however, the same does not hold for environmental and social costs whose impacts could be long-term. To guarantee adequate benefits for all stakeholders, it is important to ensure the proper accounting of benefits and costs.

The Mine Life Cycle, Mining's Footprints and Stakeholders



Source: Maria Elena Herrera.

Stakeholders and concerns may differ across the different stages of mining (pre-exploration, exploration, operation, and decommissioning and rehabilitation). (See Annex 1.2.) There is a need to look at it at different stages of the mine-life cycle. The CSR strategy of the mining company will be affected by the stage of mining and therefore the mine life cycle is an important factor.

In the pre-exploration and exploration stage, the company is focused on acquiring the necessary government licenses and on evaluating the viability of commercial production in the area. There is less damage to the environment at this stage. Also in many cases, mining companies are not required to deal with the community. However, as many countries have already implemented laws that require mining companies to get free, prior and informed consent from the community before they can operate, the community is still considered an important stakeholder.

In the exploration stage, mining companies are expected to adhere to the tenets of CSR and to recognize that they have a duty to take care of the welfare of all their stakeholders, including employees, customers, local communities and shareholders. However, it should be noted that, often, there are minimal requirements in terms of the community during the exploration stage. Also, during the exploration stage, mining companies do not make any revenues yet. At this stage, the focus is often on the community, in terms of information dissemination regarding the mine-life cycle and the social, environmental and economic impacts of mining. Information dissemination is meant to prepare the community for the operation phase should the exploration activity prove to be successful. During the exploration stage, there are large investments required from the company without guaranteed returns.

In the operation stage, the role of the government is significant as it has to ensure the compliance of the company to relevant laws so as to protect the interest of the people. One example would be government having to monitor the disposal of waste from mining operations. However, the government is also the beneficiary of revenues from mining operations; the local government needs to ensure that the revenues generated would be used in projects that would promote local development.

Also in the operation stage, the focus of mining companies on the community is greater, possibly because of corporate policy. Large multinational companies such as BHP Billiton and Xstrata, for example, require the local mines that they operate to follow international policy. Another reason for the significant focus on the community by the company might be certain local legislations. In the Philippines, for instance, mining companies are required to allot a fixed sum of money to social development projects.

At the operation stage, as well, the primary concerns of the mining company are the community and the environment because environmental degradation is expected to also affect the community. Growing community awareness of environmental impacts has been seen to affect mining operations in different parts of the world, causing disruption in operations. In Peru for example, rallies led BHP Billiton to negotiate with the local community. Per the agreement arrived at, BHP would not expand its operations without prior approval from the community.

In the decommissioning stage, the mining company focuses more on the closure of the mine and the rehabilitation of the area. This implies that the environment rather than the community is top priority. The company needs to ensure that the facility does not cause further damage to the environment. The company, after all, is aware that if the facility is not properly decommissioned or maintained, mine wastes could leak. Furthermore, as the mine is no longer earning, there is no longer any source of resources for community projects.

SUMMARY AND CONCLUSIONS

CSR basically involves looking at the connections between the company and the environment where it operates. This requires looking at the social issues confronting the company. These issues are identified through an understanding of the operating environment of the company.

Aside from looking at social issues, CSR also entails taking stakeholders issues into consideration. Stakeholder issues are identified by evaluating the social footprint of the company. The value chains of the enterprise (both upstream and downstream) as well as other affected stakeholders in the value chain also need to be taken into consideration.

The most important factor in any mining operation is the company. As the project proponent, the mining company can greatly affect its host community and surrounding environment through its operations. Being a business, a mining company considers economic returns or profits important. It will not proceed with a project that is not economically viable in light of the interest of its shareholders.

It is important to note that in recent years, financiers and buyers have grown increasingly concerned about the mitigation of the environmental and social footprints of mining companies.

Mining companies also see the need to take legacy issues that affect current perceptions of mining operations into consideration. While a different mining company may have irresponsibly mined in a community, its legacy issues will continue to affect the prevailing environmental state of the mine's surrounding areas, as well as the attitude of local residents toward mining.

Being the regulatory body, the government has the legal mandate to grant or deny mining companies access to land. It can also formulate and implement laws to guide mining operations. Thus, in this sense, government can play a large role in ensuring responsible mining. Aside from its mandate to formulate and implement laws, the government is also one of the largest beneficiaries of mining because of the revenue that it generates from mining operations.

Social concerns also need to be considered. These include mining's cost to the environment, society and communities. As mentioned, there are questions as to whether there have been enough benefits from mining, in light of the fact that mineral resources are non-renewable. There is also a need to focus on the benefit stream. The host communities are the ones most affected by mining operations. Located closest to the mine site, these communities will suffer the most should there be a tailings spill.

Mining companies need to ensure that they are sustainable. Many of them try to do this through their CSR programs. For example, they provide livelihood assistance and training to residents to ensure that the community would not be fully reliant on the company should the mining company close.

Livelihood is one of the foremost considerations of mining communities. Mining employs numerous people from the local and neighboring community. When a mine closes without a proper closure plan, members of the community employed in the mine site as well as local businesses that supply to the mine site would encounter difficulty sustaining their livelihood, unless alternative plans have been made.

As stakeholders and concerns may differ across the different stages of mining (pre-exploration, exploration, operation, and rehabilitation or decommissioning) there is a need to look at along the different stages of the mine-life cycle. As the CSR strategy of the mining company will be affected by the stage of mining at which the company is, and therefore the mine-life cycle is an important factor.

In crafting a CSR strategy, it is important to take into consideration the footprint of the company and its stakeholders to ensure that the programs will reap benefits for both the company and its stakeholders.

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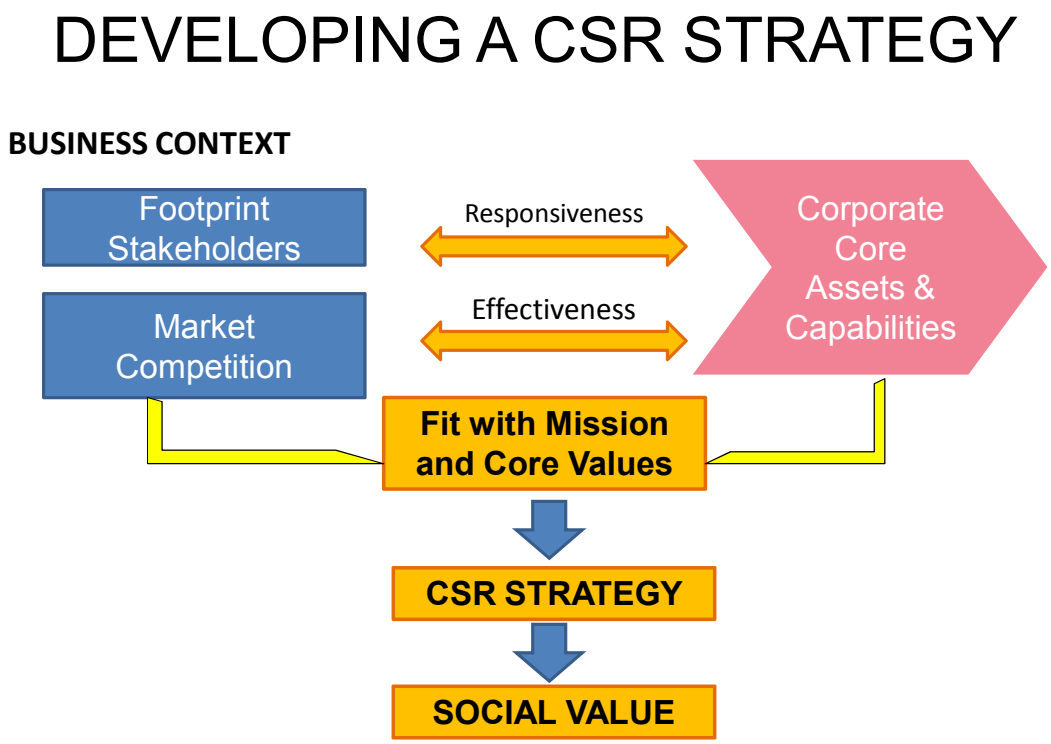
ANNEX 1.1: FRAMEWORK FOR CSR[41]

CSR Framework



Source: Alfonso, Herrera and Roman, 2010

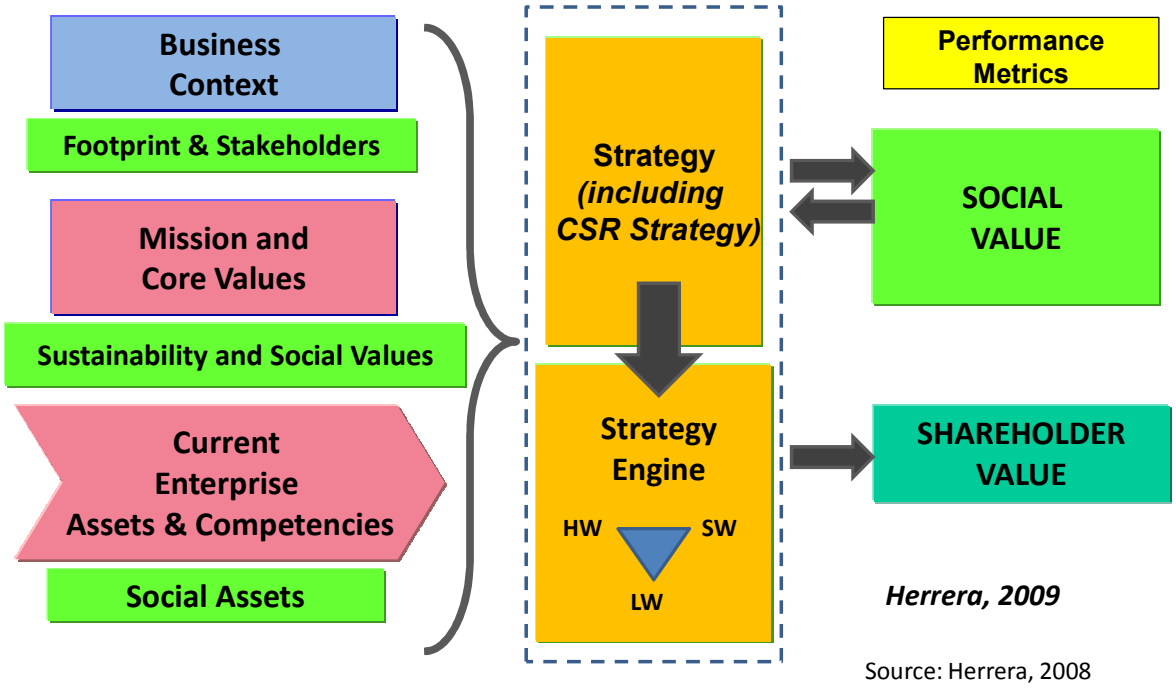
Corporate Social Responsibility (CSR) is about looking at the interface between the enterprise and its environment. Developing a CSR strategy involves looking at the operating environment of the enterprise, taking into consideration both market and non-market environment. This means taking into consideration its footprint as well as its stakeholders. "Footprint" refers to the impacts of the company's operations, including environmental (i.e., gas emissions) and social (i.e., relocation, impact on local culture) considerations.

The primary objective of CSR initiatives with respect to footprint is to minimize negative impact and maximize positive impact. Analysis of the footprint helps the enterprise identify its stakeholders. Both key internal and external stakeholders have a legitimate concern in and can affect operations. It is also important to look at the key concerns of each stakeholder as well as the influence on each other.

The enterprise also needs to evaluate its key assets and capabilities vis-a-vis its footprint and stakeholders so that the enterprise has an idea what it can utilize in managing its footprint and addressing stakeholder concerns as well as in ensuring that the business remains profitable. Profitability is important to ensure the sustainability of business.

Taking these factors into consideration, it is important then to fit all CSR objectives with the organization's mission and core values. This is important especially in prioritizing which footprint and stakeholder issues to be addressed. Unless the CSR strategy is linked to the company's objectives and values it would be difficult to sustain it. This is also important to ensure that the CSR strategy of the enterprise has value to its identified stakeholders.

Integrating Social Performance



Source: Herrera, 2008

In integrating social performance into the business, three factors need to be considered: 1) business context 2) mission and core values, and 3) current enterprise assets and competencies.

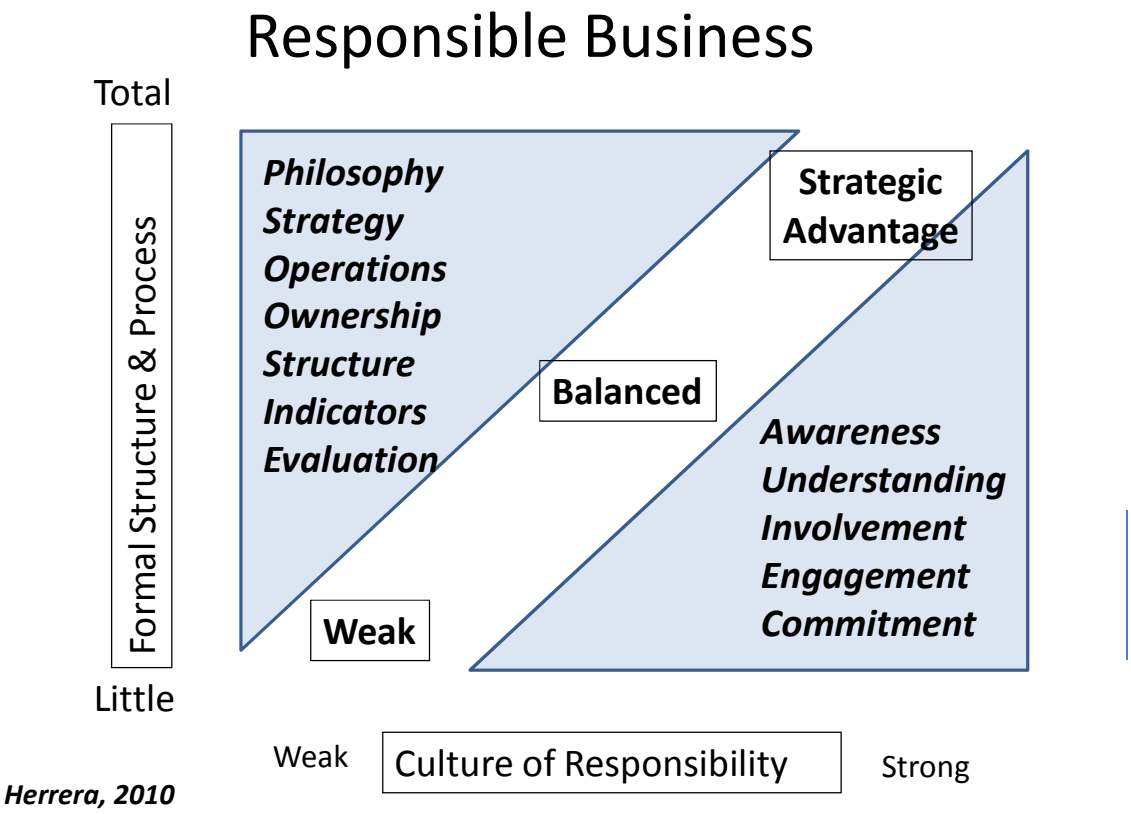
Business context refers to the company's footprint, which is its environmental and social impacts, and its stakeholders (internal and external). As mentioned previously, stakeholders are identified based on the footprint of the enterprise.

Mission and Core values include sustainability and social values the company adheres to. Current Enterprise Assets and Competencies refers to the company's resources and capabilities. In evaluating the competencies of the company, it is also important that the company look at the capabilities of other stakeholders to see how it can work together with these stakeholders.

These three factors are taken into account in the development of a business Strategy, including the company's CSR strategy. This is operationalized through the strategy engine of Hardware (infrastructure and equipment of the company), Software (resources/connections of the company) and Liveware (capabilities of employees).

Integrating CSR into the core business/operations of companies creates social value and shareholder value. First, social value refers to the benefits generated for the community—either through employment generation, poverty alleviation, livelihood, education, or health benefits. Social value, in return, benefits the company through ease of business operations, license to operate, peaceful community, and high community morale, which can affect the

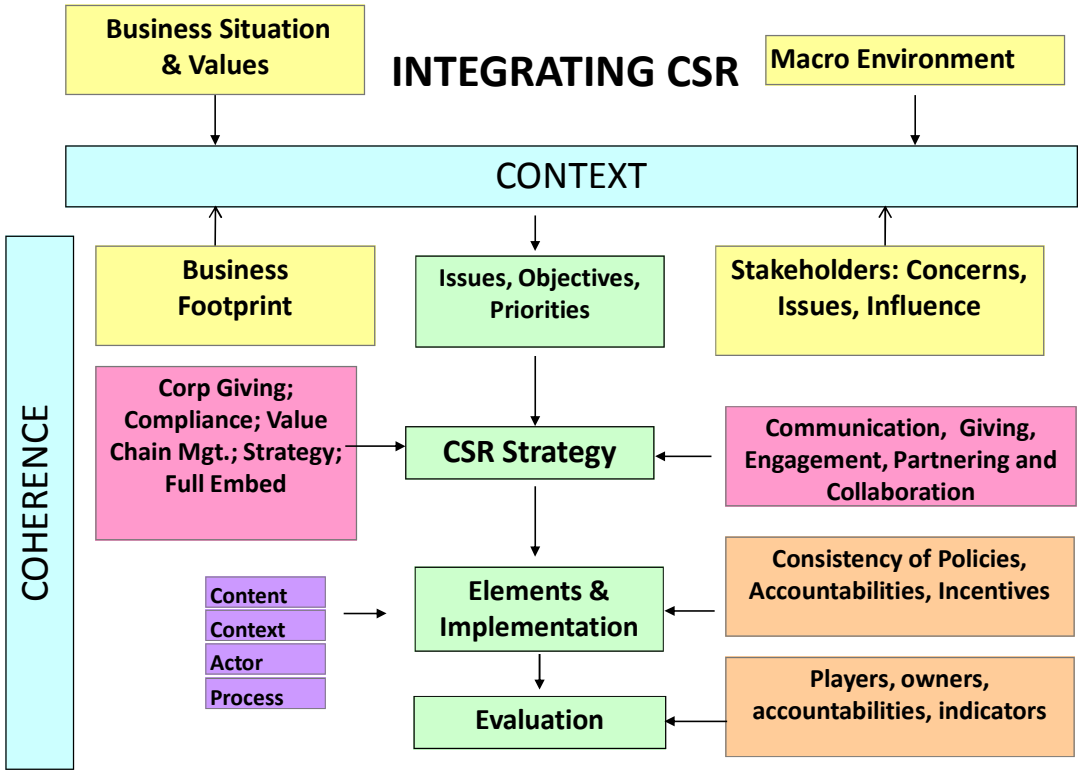
corporation's productivity and operations. Second, shareholder value refers to the benefits gained by the company through increase in reputation or image, increase in financial performance, increase in employee morale, and competitive advantage. The social and shareholder value derived from the CSR strategy is the measure of its effectiveness.



Herrera, 2010

CSR in a company stems from: 1) formal structures and process and 2) a culture of responsibility. Formal structures and processes mean that CSR is embedded in the company's business philosophy (i.e. mission-vision) and operations. For example in integrating the supply chain, wherein the company could adhere to international standards and ensures that its local suppliers also follow at least the minimum of these standards.

However, formal structures are not enough, it is important that this shared values are understood and embodied by the members of the organization. There is a need to engage employees and ensure their buy in into CSR programs. Despite formal structures it would still be difficult to integrate CSR into operation if there is no buy-in from employees (including the rank and file). In order for CSR to be a strategic advantage, there must be formal structures and processes and a strong culture of responsibility should be developed by the organization.



Herrera, 2010

Looking at a more detailed framework in integrating CSR into the core business, corporations must be able to identify the social and business context where it operates—specifically it must consider the (1) business situation and values; (2) business footprint; (3) macro-environment; and (4) stakeholders: concerns, issues and influence. These aspects need to be taken into consideration because in doing so the company can identify key business and social issues and identify which are in line with the company's objectives to be able to prioritize these issues.

After issues are identified and prioritized, the company can develop its CSR strategy. From an overall CSR strategy standpoint it is important to operationalize this plan with respect to how it can be implemented in different aspects of operations. It is important to include communication in the implementation about programs to ensure the key stakeholders (both internal and external) are knowledgeable of the company's plans to ensure their buy in. Also this is a way to tap into the assets and capabilities of other stakeholders in order to create mutual value. If partnerships or collaboration are appropriate, it is important that all parties that collaborate in the initiative are involved and has ownership of the strategy.

The social programs under the CSR strategy can either be in the form of corporate giving, compliance to environmental or business regulations, value chain management (i.e. development of MSMEs as local suppliers), or business strategy (i.e social entrepreneurship). It is important to note the stakeholders may change in different stages, thus it is important to identify stakeholders in all the stages (formulation, planning, implementation and evaluation stage).

Furthermore, in implementing the CSR strategy, the company must be able to identify the: content, context, actors and processes. It must also consider if the strategy is consistent with the corporate policies, local laws and international codes of conduct. Accountabilities and responsibilities must be clearly defined to ensure that the different people involved are doing their part in ensuring successful implementation of the CSR strategy. The company also needs to align corporate incentives with CSR efforts.

At the end of the cycle, an evaluation process must be carried-out to monitor the progress, outcomes and output of the CSR strategy. This is important to ensure that there is actual value derived from the CSR strategy otherwise, there might be a need to change it.

ANNEX 1.2: INTERNATIONAL INITIATIVES

AA1000
The Institute of Social and Ethical Accountability (ISEA) developed the Standard AA (AccountAbility) 1000, it is the first global standard that has the functions of measuring and publicizing ethical behavior of organizations. It contains principles, processes and practical guides for the development of corporate reports on social and environmental sustainability.

APELL
Awareness and Preparedness for Emergencies at the Local Levell (APELL) was an initiative of the United Nations Environment Program (UNEP), which was designed to improve accident prevention and to increase awareness of existing risks in a community. The objective of the program is to prevent human and property losses as well as to avoid damages to the environment.

APELL follows 10 steps in the development of an emergency plan that involves different stakeholders including the private sector, the government and the local community. With the support of ICMM, UNEP published APELL for Mining, which has a framework to help companies respond in case of accidents in coordination with the local community. Forging partnerships with the local community is essential to ensure the safety of different stakeholders.[42]

Environmental Excellence in Exploration
The Environmental Excellence in Exploration (E3) Project is an internet based toolkit that provides "leading examples of environmental and social responsibility in the minerals industry." It provides users with "field-proven practical guidelines on exploration activities, community engagement and environmental practices.[43]

Equator Principles
The Equator Principles are regulations voluntarily prepared and assumed by the banks for the management of social and environmental issues related to the financing of development projects. These principles are based on the Environmental and Social Standards used by the IFC and are used in loans granted for projects with a capital cost equal or superior to US$ 50 million, in all the industrial sectors including mining. Based on the Equator Principles, financing will only be granted to projects which demonstrate that they will be managed in a socially responsible manner[44]

Ethos Indicators
The Ethos Institute--Business and Social Responsibility—an NGO, developed the Ethos Indicators of CSR in 2005. The Indicators provide assistance to companies in the process of deepening their commitment to social responsibility and sustainable development. "It is structured as a questionnaire with subjects relevant to a management that contributes to social environmental development."[45]

Extractive Industries Transparency Initiative
The Extractive Industries Transparency Initiative (EITI) is a multi-stakeholder initiative, which involves governments, companies, civil society groups, investors and international organizations. The initiative promotes transparency and improvement in the "governability indices in countries rich in natural resources by means of the publication and verification of payments made by companies and the fiscal income from" the extractive industry including oil, gas and minerals. It has been demonstrated that low levels of governability in countries that have considerable natural resources can cause poverty, corruption and, in some cases, lead to conflicts. The EITI aims to eliminate these negative impacts through transparency and accountability.[46]

Global Reporting Initiative - GRI
This is a multi-stakeholder initiative founded by the United Nations Environment Program (UNEP) and the Coalition of Environmentally Responsible Economies (CERES). GRI is an instrument to develop and publicize globally applicable guidelines for sustainability reports. GRI is a voluntary guideline designed to improve the quality of sustainability reports. It is composed of 54 main indicators that are organized in terms of environmental, financial and social. The GRI also has a sector supplement for the sustainability report on mining activities.[47]

International Council on Mining and Metals (ICMM) Principles for Sustainable Development
The International Council for Minerals and Metals (ICMM) approved 10 principles to promote sustainable development and committed its corporate members to measure their performance against these principles. The principles were extracted from the "Breaking New Ground" report from the Mining, Minerals and Sustainable Development Project–MMSD. They also include a commitment to public information, independently verified reporting and orientation about good management practices. The ICMM principles refer to corporate governance issues: corporate decision-making, human rights, risk management strategies, health and security, environment, biodiversity, integrated material management, community development and independent verification.[48]

Environmental, Health and Security Guides from the International Financial Corporation
The Environmental, Health and Security Guides published in April 2007 are technical references with examples from industry activities. The IFC uses these guides as a source of technical information during project assessment processes. The guides contain performance and measurement levels normally acceptable to the IFC, considered as possible to implement in new projects at a reasonable cost, and making use of available technology. These guides are applied along with regulations specific to each sector, and in accordance with what the performance standards have established.[49]

ISO 26000
The International Standardization Organization, ISO, developed the Guidance on Social Responsibility. It "provides harmonized, globally relevant guidance for private and public sector organizations of all types based on international consensus among expert representatives of the main stakeholder groups." ISO 26000 contains voluntary guidance on social responsibility.[50]

ISO 14000
The ISO 14000 series on environmental management is a collection of voluntary standards that assist organizations meet the challenges of sustainable development. “The standards provide both a model for streamlining environmental management and guidelines to ensure that environmental issues are considered within a decision-making framework.”[51]

United Nations Global Compact
“The United Nations Global Compact is a strategic policy initiative for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labor, environment and anti-corruption.”[52] The United Nations also gives recommendations to companies on how to comply with the most renowned international instruments that regulate these issues (i.e. Forced Labor Convention).

Voluntary Principles on Security and Human Rights
The Voluntary Principles on Security and Human Rights is a result of the dialogue between governments, companies and NGOs. They are promoted by different governments such as the United States and the Netherlands, as well as companies from the extractive and energy sectors. Some NGOs are also promoting these principles. The Voluntary Principles focus on security and human rights issues, and establish concrete lines of action to systematically evaluate and manage the risks and impacts of corporate activity in these fields.[53]

ANNEX 1.3: ENVIRONMENT RELATED LEGISLATION[54]

Economy	Environmental Impact Management	Decommissioning and Rehabilitation	Pollution Monitoring and Control	Others
Australia	• Environmental Impact Assessment (Environmental Protection and Biodiversity Conservation Act of 1999) • Environmental Management System • Nature conservation laws • Resource conservation laws • Laws on biodiversity	• Bond is required for compliance with environmental and rehabilitation conditions • Rehabilitation of mining areas is the responsibility of the lease holder. Rehabilitation plan should consider the surrounding environment, and the original state of the land and its possible use.	• Air and water pollution laws • Waste management laws • Laws on hazardous wastes	
Canada	• Environmental Impact Assessment • Environmental Protection Act (Ontario) • Recycling of mine wastes in some provinces such as Manitoba	• In most provinces, a bond is required to ensure the prevention or mitigation of the adverse effects of mining by government, if the company is unable to do so. • British Columbia and	• Water quality monitoring • Submission of spill prevention and contingency plan • Waste Management Act	• In Ontario, the Environmental Compensation Corp. was established to assess spill damages and administer necessary compensation

		Manitoba, for example, require the establishment of a mine reclamation fund		
Indonesia	• Environmental Impact Assessment • Law on Environment Management	• Measures for the rehabilitation of mined out areas (progressive rehabilitation)	• Effluent standards • Laws on hazardous waste • Air pollution control law • Laws on water resource protection	
Philippines	• Environmental Impact Assessment • Environmental Management System • Environmental Protection and Enhancement Program	• Required Contingent Liability and Rehabilitation Fund • Mine Decommissioning Plan • Progressive Rehabilitation	• Clean Water Act • Clean Air Act • Mine tailings dam safety standards • Waste management laws • Laws on hazardous waste disposal	• Multi-partite monitoring team • Continuous Reporting Requirement
Chile	• Environmental Impact Assessment • Law of Environment		• Air Quality Standards • Water Quality Monitoring	

China	• Environmental Impact Assessment • Environmental Protection Law	• Pre-approval of the mine closure plan is required at least one year prior to closure; this also takes into account resettlement plans and subsidies for workers	• Environmental pollution mitigation requirements in terms of design, construction and the operation of facilities • Laws on water and air pollution (setting minimum standards)	
USA	• Environmental Impact Assessment (National Environment Policy Act) • Resource Conservation Laws • Law on Biodiversity	• Requires plans of operation and reclamation, and financial assurance for reclamation • Current federal regulations provide for the mandatory reclamation of any disturbance on public lands.	• Clean Air Act • Clean Water Act • Water quality standards • Laws on waste management • Law on spill prevention measures	

ANNEX 1.4: SOCIAL RELATED LEGISLATION[55]

Economy	Stakeholder Participation	Taxes, Royalties, Provision of Social Development Program	Indigenous Peoples Communities
Australia	• Stakeholders are involved in the evaluation and review processes of projects • Public hearings and inquiry (for controversial cases and if there is an objection to a project)	• Mine royalty rate average is up to 10% of profits	• Laws to protect the property rights of Aboriginal communities
Canada	• Public participation in hearings • Citizens can request the investigation of law violations	• Mine royalty varies per province • Capacity building of local communities	• Aboriginal partnerships and business development
Indonesia		• Companies engaged in the use of natural resources must conduct environmental and social responsibility programs. • Taxes are 10% of net profit in addition to the 13.5% royalty	• Human Rights Act (recognizes land ownership)

Philippines	• Consultation with stakeholders is required to acquire the Environmental Compliance Certificate • Multi-partite monitoring team composed of representatives from different stakeholder groups	• At least 1% of milling and mining costs are allotted to community development, science and mining technology research (90% for SDMP (spell out) which includes livelihood projects, education, and infrastructure)	• Payment of royalty to recognized IPs (Mining Act of the Philippines) • Required free, prior and informed consent from affected IPs under the IP Act
China	• Public participation	• Value-added tax, royalties, corporate income tax and other relevant business taxes	

ANNEX 1.5: SUMMARY OF MAJOR STAKEHOLDERS AND CONCERNS PER STAGE

Stage	Stakeholders	Social	Environmental	Economic
Pre-exploration and Exploration	• Government (issuance of licenses) • Although in most cases community development is not required at this stage, it is I important to take into consideration the local community whose consent is needed for a mining company to be able to acquire government licenses • Civil society groups also need to be considered because they can influence the local community	• Employment (temporary) • Mining rights (surface claimants) • Information dissemination • Displacement of residents (relocation may be necessary in some instances) • Public participation • Legacy issues	• Rehabilitation of drilled areas (during exploration usually there is minimal soil disruption) • Siltation	• Job generation for local communities
Operations	• Government (issuance of licenses, monitoring, recipient of taxes) • Local community since it is the direct impact area (involving the community in CSR projects can help make CSR projects sustainable) • Civil society groups since they can disrupt mining operations • Buyers- more and more	• Employment • Reliance of the community on the mining company • Social investment • Development of the local community (community wants versus community needs) • Social dislocation • Legacy issues • Impact on local	• Acid mine draining • Siltation • Water and air Pollution • Mine tailing spill • Change in geographical aspect of the land • Biodiversity • Heavy metal contamination • Deforestation	• Contribution to taxes, GDP and exports • Allocation and use of revenues. In many cases the bulk of the revenues in the form of taxes go to the government rather than to the host community. • Proper accounting of revenues and costs. • Development of local

	buyers are taking into consideration how minerals are extracted (i.e.. Kimberly Process for Diamonds) • Suppliers	culture especially on indigenous communities		industries (are the right industries being developed?)
Decommissioning or rehabilitation	• Government because if decommissioning is not done properly, the burden to rehabilitate goes to the government • During the decommissioning stage, focus on the environment is greater than it is on the community since it is expected that, at this stage, especially for long-term mining operations, that the community will already have benefitted during operations.	• Boom-bust cycle • Unemployment	• Maintenance of facilities • Rehabilitation of mined areas ensures that the land can still be used • Change in geographical aspect of the land	• In many cases, mining companies in the host community among the biggest tax payers: this being the case, once mining operations ceases, the impact of the cessation on the revenue of the local community will be felt.

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Asia-Pacific
Economic Cooperation

CASE STUDIES

A CASE STUDY ON SAGITTARIUS MINES, INC.: HOW SUSTAINABLE DEVELOPMENT IS INTEGRATED INTO THE CORE BUSINESS PRACTICES OF AN EXPLORATION COMPANY

SAGITTARIUS MINES, INCORPORATED

Sagittarius Mines Incorporated (SMI), a Filipino company, manages the Tampakan Copper-Gold Project. By virtue of its Financial and Technical Agreement with the Philippine Government, SMI is contracted to explore, develop, and operate the Tampakan Copper-Gold Project.[1]

SMI represents the interests of its investors: Xstrata Copper (XCu), Indophil Resources NL, Alsons Corporation, and the Tampakan Group of Companies. (See Exhibit 1.) In March 2007, Xstrata Copper bought 62.5% of SMI and took over the management of the Tampakan project. The entry of senior managers from Xstrata was expected to strengthen the technical aspects of the project. Furthermore, Xstrata sought to continue the community and social development programs initiated by SMI.[2]

THE TAMPAKAN COPPER-GOLD PROJECT (TAMPAKAN MINE)

The Tampakan Copper-Gold Project is situated 65 kilometers north of General Santos City at an elevation of 1,380 meters above sea level. It is considered one of the largest undeveloped copper-gold deposits in the South East Asia-Western Pacific region.[3] The project has the potential to "become the largest mine in the Philippines, and the fifth largest copper mine in the world by 2016."[4]

Measuring 9,460 hectares,[5] the proposed mine site can be found in the quad-province boundary of South Cotabato, Sultan Kudarat, Sarangani, and Davao del Sur.[6] Surrounded by tribal communities called Blaans, it covers ten barangays,[7] four municipalities, four provinces, and two administrative regions. On the other hand, SMI's indirect impact areas will include the communities surrounding its port and power plant.

The facilities included in the proposed final area are: an open pit mine, an ore overland transport conveyor, a copper concentrator, a tailings storage facility, a waste rock facility, an aggregate quarry and borrow pits, water treatment plants, a fresh water storage facility, and administration facilities and site services. In addition, off-site facilities such as a concrete pipeline, a power station, transmission lines, a ship loading facility, and mine site access roads, need to be constructed to facilitate mining operations. (See Exhibit 2.)

In 2009, the Tampakan Project is at the initial exploration phase. The feasibility study, the Environment and Social Impact Assessment (ESIA), and consultations with its stakeholders are expected to be finished by 2010.

This case study was written by Maria Cristina I. Alarilla based on secondary materials. SMI was informed of this research project. A copy was given to the company before publication.

Cristina obtained her bachelor and Masters Degree on International Political Economy with specialization on International Relations from the University of the Asia and the Pacific. She is currently a Research Coordinator / Consultant at the AIM-RVR Center for Corporate Social Responsibility. Her research interests include Corporate Social Responsibilities, Health and Governance Issues.

In 2016, the Tampakan Mine should start production. Processing the ores in the site may require a total investment of US$5.9 billion.[8] The mine is expected to hold "2.4 billion tons containing 13.5 million tons of copper and 15.8 million ounces of gold at a 0.3% copper cut-off grade."[9]

Depending on the processing rate, the mine is estimated to last 20 years. The highest possible annual processing rate is 66 million metric tons, while the estimated yearly outputs are 340,000 metric tons of copper and 350,000 ounces of gold.

MINING POLICIES

Through the Philippine Mining Act of 1995, the Philippine Government promotes the mining industry as an economic driver of growth. It has tasked the Department of Environment and Resources (DENR) and the Mines and Geosciences Bureau (MGB) to uphold the interests of the mining industry, and to regulate the behavior and practices of mining companies. Meanwhile, the local government units formulate their own Environmental Code and guidelines on environmental protection and sustainability. In June 2010, the Provincial Government of South Cotabato adopted its own Environmental Code, which banned open pit mining in the province.

The validity of the Environmental Code is currently being debated upon. The MGB of Region 12 argues that the Environmental Code is in conflict with "a state law of general character" and contends that its "state-wide application is universally held to be invalid."[10] It postulates that it is the Philippine Congress rather than the Provincial Board of South Cotabato which has the power to indicate the areas where mining activities are prohibited in the Philippines. The MGB cites Order No. 292 or the Administrative Code of 1987 as identifying the DENR to be the agency involved in "carrying out the State's constitutional mandate to control and supervise the exploration, development, utilization, and conservation of the Philippines's natural resources" and as having the "primary responsibility[…]to formulate and implement policies related to said mandate."[11]

Section 22 of the Environmental Code poses serious implications for the mining industry in Region 12 because the Tampakan Copper-Gold Mining Project has announced that it will use the open pit method. SMI is expected to invest an estimated US$5.55 billion on the Tampakan project which has been recognized as Region 12's flagship mining project.

LOCALIZING A GLOBAL STRATEGIC CSR FRAMEWORK

Globally, Xstrata is committed to sustainable development (SD). It identifies the balance between community, environment, health, safety, and security issues and how they affect business operations.[12] Its SD policy statement declares: "Xstrata believes that operating to leading standards of health, safety and environmental management, contributing to the development of sustainable communities, and engaging with our stakeholders in a two-way, open dialogue, regardless of our location, enhances our corporate reputation and is a source of competitive advantage."[13]

Xstrata also drafted an SD framework for its business units and board of directors. This framework is aligned with the principles and guidelines of the International Council on Mining and Minerals, the Precautionary Principle, the UN Global Compact, Voluntary Principles on Security and Human Rights, ISO 31000, ISO 14001 and OHSAS 18001.

The framework consists of the following four guidelines:

(1) The Business Principles provide an ethical framework on how Xstrata will conduct its business.
(2) The SD policy identifies the principles used in managing its programs on health, safety, employees, communities and the environment.
(3) Xstrata's SD standards set the business expectations for its operations, projects and other SD-related initiatives.
(4) Its Independent Assurance Program provides accountability and control mechanisms for the Xstrata Board and management to ensure that the policies and standards are met, and that potential risks are managed and mitigated.[14]

SMI adopted the SD framework of Xstrata and integrated it into the mine's daily operations and management.[15] SMI also mandated and tasked its Corporate-Community Sustainability Department (CCSD) to integrate the community aspect of Xstrata's SD framework into social programs related to gender, health and safety, culture, peace and conflict, and the environment. CCSD's goal is to "improve the quality of life within the company's host and neighboring communities in a manner that contributes to the sustainability of the business, and promotes best practice in the mineral development industry."

The strategic objectives of CCSD are:[16]

- to promote the financial viability and social acceptability of the company,
- to ensure the sustainable and equitable development of directly affected communities and surrounding areas of the company,
- to enhance the ability of the host and neighboring communities to appreciate, participate, and lead in ensuring their sustainable development, and
- to enable the indigenous communities to protect, promote, and preserve their indigenous knowledge, systems and practices.

SMI's Sustainable Development Policy

"'Sustainable Development" describes SMI's approach to ensuring the long-term viability and continued success of our business activities.

We invest in the long-term of the Tampakan Project, which provides a basis for social and economic development in the region. Although the lifespan of our activities is finite, we aim to invest in skills, social development, and economic benefits that outlive these activities.

We aspire for the highest conduct in business as set out in our Business Principles, to protect and enhance our corporate reputation, and ensure our ongoing access to mineral resources.

We aim to create value for our stakeholders by contributing to a sustainable environment through investments in our business to improve performance efficiency, to ensure the efficient use of resources such as water and energy, and to maintain safe and healthy workplaces.

To ensure a harmonious relationship with our stakeholders, minimize risk and secure an ongoing license to operate, we aim to create mutual benefits for stakeholders, working in partnership with the various parties who have an interest in or are affected by our business.

Source: Sagittarius Mines Inc. Sustainability Report, Tampakan Project 2009.

In 2009, CCSD's strategy included the formation of units and strategies geared to meet the UN MDGs:[17]

- The Stakeholder Engagement and Partnership (SEP) Team aims to strengthen cooperation with and among stakeholder groups affected by company operations to promote the social acceptability of the Tampakan Project. Stakeholder feedback is incorporated into the company's day-to-day operations and, in the long-term, will form part of the ESIA.
- The Cultural Sustainability/Free and Prior Informed Consent (CS/FPIC) Team empowers tribal communities to manage both natural and cultural wealth. It also ensures that consent is given willingly and intelligently, through ways that are consistent with the law and are respectful of the tribal community's indigenous culture.
- The Sustainable Resettlement (SR) Team ensures that communities living in the project area would be resettled in a manner that would improve their standard of living.
- The Community Socio-Economic Sustainability (CSES) Team implements programs to broaden employment and business opportunities, improve local infrastructure, and improve the capacity of local governments and tribal councils to deliver basic social services to their constituents.
- The Community Environment Sustainability (CES) Team engages with communities, government offices, and non-government organizations (NGOs) through a multi-sectoral setting that seeks to protect the air, water, land, and biodiversity in and around the Tampakan Project.
- The Sustainability Management System (SMS) Team develops policies, systems, and operating guidelines; monitors and evaluates program results; and manages knowledge gained from program implementation experiences. It also regularly monitors the capacity of CCSD to deliver on commitments according to SMI's SD policy and CCSD's internal performance standards.

THE CULTURAL SUSTAINABILITY (CS) AND SUSTAINABLE RESETTLEMENT FRAMEWORK. SMI's CS framework addresses the interests and concerns of the indigenous peoples (IP) who reside in the direct impact areas. It is centered on preserving the IPs' identity and ancestral domain. In doing so, it adopts the four-pronged approach of respecting the rights of the IP in gaining free and prior informed consent, promoting socio-cultural development, protecting the indigenous governance system, and preserving the heritage of the IP.

SMI's Sustainable Resettlement Strategy[18] aims to preserve competition for basic resources and access to public welfare. The target beneficiaries are those affected by the resettlement—the receiving host community and the original settlers. The goal is to make livable and viable housing resettlement through social infrastructure capacity building. The program components are (1) housing and infrastructure, (2) livelihood, (3) health delivery and (4) education. The specific objectives are:

- to provide replacement housing and housing facilities,
- to extend rural infrastructure support for social welfare—community system, daycare, schools, irrigation and agriculture,
- to put up livelihood projects in order to restore the income of project-affected persons,
- to increase the capability of community-based people organization in managing their resources,
- to ensure access to basic education, and
- to ensure access to basic health care.

SMI's resettlement program adheres to the rights-based approach and safeguards cultural sensitivity in determining the right mix of programs to be implemented. Furthermore, it has adopted international policies and standards on land acquisition and inventory resettlement, such as the IFC Performance Standard No. 5, the United Nation Human Settlement Standard, and the MDGs. To ensure sustainability, SMI integrated its future community development programs into the value chain of SMI. A tripartite partnership between an NGO, SMI, and the local government office will be formed to facilitate the implementation of the resettlement program.

SMI's community environment and strategic direction initiative. SMI's community environment initiative focuses on reforestation, the creation of a nursery for seedling propagation, and the conduct of research for the baseline study. SMI also fostered partnerships with several local universities:[19]

- It had a Joint Research Project with the Notre Dame of Marbel University (NDMU). SMI and NDMU updated the baseline studies on water quality, health, soil, and sedimentation in areas likely to be impacted by the Project.
- Under the UPLB-Indophil Collaborative Research Project, forestry students from UPLB conducted field research on the mountain ecosystems in the Tampakan district.
- It also launched a research initiative on the study of vegetation with Leyte State University (LSU). LSU conducted two botanical research projects in line with the baseline studies.

Reforestation and Rehabilitation. Under SMI's reforestation program called "Maleh To Kayu," 50,000 seedlings were planted with the assistance of more than 750 volunteers and 17 community groups in 2008. SMI also conducted regular monitoring of the seedlings to determine and improve the survival rates of future reforestation initiatives.[20]

This initiative was part of the Multisectoral Reforestation Project and Buffer Zone Development Project launched in 2005. The project aimed to plant at least 50,000 trees yearly or at least 250,000 trees within a five-year period over 500 hectares around the project area consisting of "various indigenous and fruit trees suited to different topographic elevations."[21] Since 2005, SMI's reforestation initiatives have planted over 250,000 seedlings in and around the Tampakan project area with the help of host barangays and municipal local governments, NGOs, DENR, schools/universities, religious groups and the communities.[22]

The Philippine Mine Safety and Environment Association (PMSEA) recognizes SMI's reforestation activities. It has then received the following awards: Best Mining Forest Program–Exploration Category (2006 and 2008) and runner-up in the Mining Forest Program–Exploration Category (2007).[23]

Aside from reforestation, SMI has conducted a study on the forest's flora and fauna and a forest inventory that aims to "collect quality forest growth and development data, to better understand the sustainability of the forest systems and minimize adverse environmental impacts to these systems." These studies have entailed data gathering on biological diversity.[24]

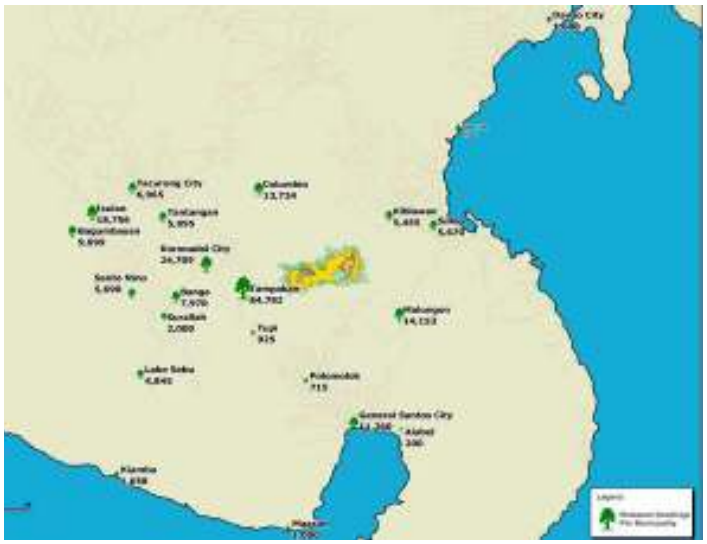
In the Liberty Core Farm Nursery, the species are studied and cultivated, after which they will be "reintegrated into their respective ecosystems once the mine has ceased operation." With over 50 varieties of trees, the Nursery acts "as a resource center for the company's reforestation programs, distributing 130,000 seedlings of various species in 2009 with a survival rate reaching 90%." The seedlings from the Nursery will be planted in the buffer zone—a strip of land surrounding the mine site. The buffer zone is designed "to protect the surrounding ecosystems, reduce carbon released into the atmosphere, mitigate noise and air pollution, ensure water quality is maintained, and prevent soil erosion."[25]

The future plan for the buffer zone includes:[26]

- prioritizing planting areas for the next two years and areas that will be maintained over the life of the mine
- allocating costs for the preferred planting systems, data for which will be collected from current planting activities and integrated into a financial model for the buffer area establishment

In addition, SMI has been considering the socio-economic benefits of the reforestation program among them the generation of employment and livelihood opportunities through site preparation and planting, alongside other benefits that may be obtained from the procurement and provision of seedlings and other planting materials.[27] (See figure below.)

In 2009, SMI received the Presidential Mineral Industry Environment Award, which is the "highest award for outstanding environmental practices awarded to a minerals development company in the Philippines."



Source: SMI's Sustainability Report 2010

SEEDLINGS RELEASED PER MUNICIPALITY SINCE 2005

Aside from reforestation, SMI took the initiative of rehabilitating the disturbed land due to drilling operations and of restoring it to its original state. According to its 2010 Sustainability Report, in 2008, 2.3 hectares of land were "disturbed" during drilling operations while approximately 3.1 hectares of land were rehabilitated and will continue to be monitored" until they are returned to their original, pre-drilling condition.[28]

In addition, SMI will be developing a Biodiversity and Land Management Plan, a detailed surface water model, and a water management plan to address future concerns on climate change and water stress. It will factor in the demands of the local population and environment.[29]

Other environmental mitigating initiatives implemented by SMI include:

- the development and implementation of the site Environmental Management System (EMS) consistent with ISO14001;
- the implementation of controlled documentation including that of procedures and SD standards progressively rolled out across the site;
- quarterly internal environmental audits undertaken with corrective action items monitored;
- the identification of the project's environmental risks; and
- hydrocarbon management: impermeable bunds were constructed in major fuel storage areas, and emergency spill response training was rolled out to key personnel.[30]

Furthermore, SMI maintains 37 surface water monitoring sites, 12 stream flow monitoring stations, six automatic weather stations, 12 rain gauges and 17 groundwater observation wells to aid its environmental studies and monitoring.[31]

COMMUNITY DEVELOPMENT PROGRAMS

The partnership included capacity-building and training programs for the direct impact communities. In 2007, SMI conducted value formation and leadership trainings, livelihood and enterprise development seminars (i.e., food processing for women, goat raising, the cultural management of corn and rice for tribal farmers), adult literacy classes in the tribal communities, and skills training (i.e., carpentry, masonry, welding, building wiring).[32]

In 2008, SMI implemented the Tampakan Social Involvement Program, a stakeholder consultation process that aims to "identify and define projects that best respond to the key social challenges and opportunities in the host and neighboring communities."[33]

In the same year, SMI spent PhP65 million (US$1.4 million) on various CSR programs, whereby:[34]

- A total of 16,325 students were granted free elementary, high school and college education in the communities of Tampakan (5,700), Tupi (262), Kiblawan (1,651), Columbio (8,141), Malungon (563), and Region XII (8). The academic performance of each student was constantly monitored until the school year ended in March 2009.
- SMI supported the monthly salary of 15 teachers in the communities of Tampakan, Tupi, Columbio, and Malungon; while the local governments of these communities sought the inclusion of these salaries in the budget of the Department of Education.
- Access to basic health services was provided to over 30,000 community members; and at least 3,000 families or 15,000 individuals were enrolled in the PhilHealth Program.
- In partnership with various tribal councils, adult literacy programs were set up in several barangays in Kiblawan and Malungon, benefitting more than 548 adults.

In 2009, SMI collaborated with some institutions for its community sustainability development program. SMI partnered with Synergia Foundation for its education program. There were also livelihood programs that were developed and hinged on the MDGs.

ECONOMIC CONTRIBUTIONS

SMI's total economic contribution from 2007 to 2009 was estimated to be PhP3.38 billion (US$73.9 million). (See table below.)[35]

SMI also contributes to the Philippine economy through tax payments (income tax, value-added tax, and documentary stamp tax), customs duties, and interest on foreign loans. As for the local economy, SMI contributes to it through the payment of a real property tax, occupation fees, registration fees, permit fees, and employee salaries. At the barangay level, the host communities benefit since majority of the project workforce are from the barangay.

In a media release, Mark Williams, President of SMI said that "The Tampakan Project has the potential to increase the economy's gross domestic product (GDP) by an average of 1% per year for 25 years[…]These significant economic benefits will flow through to both the economy and local levels, and are just part of the overall social and economic benefits that the project will deliver." [36] The Center for International Economics estimated that the Tampakan Copper-Gold Project will generate revenues amounting to US$40 billion for the Philippine.[37]

SMI'S ECONOMIC CONTRIBUTION TO THE PHILIPPINE ECONOMY

EXPENDITURE ITEMS	2007	2008	2009
Employment	446 people 325 local people	209 people 1,055 local people	252 people 1,065 contractors
Annual wages bill	PhP113 M (US$2.7 M)	PhP182.6 M (US$4.1 M)	PhP189.4 M (US$4 M)
Purchasing regional goods and services	PhP512 M (US$12.4 M)	PhP817.1 M (US$18M)	PhP328 M (US$7M)
Paid to governments in taxes and charges	PhP101 M (US$2.4 M)	PhP181.4M (US$4M)	PhP207.2 M (US$4.37M)
(Paid in taxes to local councils)	PhP4 M (US$97,000)	PhP2.9M (US$65,000)	PhP2.2 M (US$46,500)
Power and fuel charges	PhP27 M (US$653,000)	PhP27 M (US$608,000)	PhP27 M (US$608,000)
Community partnerships, sponsorship and donations	PhP23 M (US$580,000)	PhP65 M (US$1.4)	PhP79 M (US$1.67)
Environmental Projects	Not indicated	Not indicated	PhP18.56 M (US$391,808)
Total Economic Contribution to Philippine Economy and Mindanao	PhP780 M (US$18.9 M)	PhP1.2 B (US$28.2 M)	PhP1.3 B (US$26.8)

Source: SMI Sustainability Report 2008 and SMI Sustainability 2009.

SMI continues to support the Principal Agreements (initially forged by Western Mining Corporation) with the direct impact communities. Aside from SMI, the signatories of the Principal Agreements include five tribal communities, [38] five barangays and three municipalities. Investments in the development of the host communities cover financial assistance worth PhP1.5 million per year to each tribal community, and PhP1 million per year to each barangay and municipality.[39]

KEY CONCERNS AND FACTORS

Environment. The Tampakan Copper-Gold Project is located in Mindanao which is rich in biodiversity. According to the report entitled "Philippines: Mining or Food," mining in Tampakan will affect biodiversity in the provinces of South Cotabato, Sultan Kudarat, and Davao del Sur. The report argued that "these areas would be at risk from mining pollution, erosion, siltation, and continuing devastating flash floods and landslides." It also noted that Lake Buluan and Liguasan Marsh will be greatly affected. Lake Buluan, the third largest lake in Mindanao, is located along the boundaries of President Quirino and Lutayan in Sultan Kudarat, and Buluan in Maguindanao. The fresh water lake has a surface area of approximately 61.3 square kilometers, an average depth of 2.0 meters, and a maximum depth of 5.8 meters.[40] Liguasan Marsh, on the other hand, is part of the Cotabato-Agusan River Basin. It covers 288,000 hectares and spreads along the provinces of Maguindanao, Cotabato, and Sultan Kudarat. The Liguasan Marsh consists of three marshes and its "confluent rivers": Liguasan (Pulangi, Maganoy, Buluan and Allah rivers), Libungan (Pulangi and Libungan rivers), and Edpanan (Pulangi and Tamontaka rivers). The daily fish catch in Liguasan is believed to be able to range from 10 tons to 30 tons per day.[41]

The report also claimed that:

> Lake Buluan, with its superb sustainable fish production capacity, may be damaged or even destroyed by flash floods, toxic pollution and increased siltation which will gravely affect the largely Muslim population who depend upon it for survival. The Liguasan Marsh could also fall victim. The marsh is an extensive swamp region some 40 kilometers long and 30 kilometers-wide, in central Mindanao. There are fertile rice-growing areas and mangrove forests in the marsh, a game refuge and bird sanctuary.[42]

The report further noted that mining will also affect the geology in the area. The report indicated that due to the instability of the land formation and the presence of a fault line, landslides may prevail. Seismic shocks may also occur and aggravate the situation. "Water catchment areas need urgent protection, conservation and reforestation, not mining, to help sustain and increase sustainable food production."[43]

SMI then placed the Liberty Core Farm Nursery in Tampakan, South Cotabato, in order to achieve SMI's commitment and address these various concerns." The core farm is part of the biodiversity and land management plan currently being developed for the Tampakan Project. The Core Farm undertakes baseline studies of the "soil, flora and fauna, visual and noise to better understand the sustainability of the forest systems and minimize adverse environmental impacts to these systems."[44]

SMI also commissioned an extensive study of Lake Buluan in 2009. In partnership with Provincial Government of Sultan Kudarat, the University of Southeastern Philippines, and Hydrobiology WA Pty Ltd of Australia, the study sought to:

- investigate the current status and drivers of the lake;
- understand the controls on lake processes and health to determine management measures;
- generate a baseline dataset that provides a comprehensive reference point for future management;
- provide information suitable for potential impact assessment for future natural resource development and industry in the Lake Buluan catchment; and
- provide an information resource tool which can be used as basis for engaging the local community and other stakeholders.[45]

After the completion of the study, SMI intends to develop a plan “to ensure Lake Buluan, as a vital environmental and livelihood resource, and will be left unharmed with the operation of the Tampakan Project.”[46]

Community. A recent survey conducted by a third-party organization to assess the social profile of the communities and families living in the direct impact area revealed that a significant number of residents have not completed primary education, are unemployed, and poor. The direct impact stakeholders of the Tampakan Copper-Gold Project include the indigenous people (Blaans), the Church, environment groups, local government, as well as armed groups.

The Blaans. Majority of the affected households in the proposed final mine area are Blaans, on whose ancestral domains the mining area is located. The Blaans constitute one of the major non-Islamic tribal groups living in Southern Philippines (Island of Mindanao), in the provinces of Davao del Sur, Sarangani, South Cotabato, Sultan Kudarat, North Cotabato and Maguindanao.[47]

The Blaans have their own language, Blaan, but some members can also speak Filipino and Cebuano. Blaans are skilled in weaving abaca fibers, and design and make their own traditional clothes and beadwork. The designs of their cloths (abaca or cotton woven fabric) and beaded accessories usually depict the environment or the solar system. In addition, the Blaans are known to be masters of the art of smelting brass and copper, which they make small into bells and long knives which are intricately designed.[48]

Bla in Blaan means "opponent", while *an* means "people".[49] The Blaans are often depicted as a warrior tribe. For a Blaan, “the risk of combat is always present” Such that they are “seldom caught with their defences down.”[50] This culture also translates to their perception of “life.” More often, conflicts among tribesmen are resolved through violence and death. For the Blaans, the most important value is self-preservation at any cost.

The Blaans highly value their families, especially their wives. As the males may have multiple wives, “wife-grabbing” is a regular occurrence within the tribal group. A man may forcibly take another man’s wife, with or without her consent. Due to jealousy, conflicts usually arise between the parties involved. The Blaans have pronounced or defined roles in their families: the men do all the heavy work, while the women the “less burdensome”; the men open and prepare the farms; the women tend to the crops until harvest time.[51]

In terms of spirituality, the Blaans are “strong believers” of “interdependency with the environment.” They believe that they are part of “the grand design of creation” and that everything revolves“ around the great creator” whom they call *Malu* or *D'wata*. They also believe that the creator is “the source of everything, whether living or inanimate” and “controls the movement of everything on earth.” They subscribe to the idea that “Man, despite his being the more favored of the creatures, must respect the will of the creator,” and he therefore “cannot touch or molest any creature or object without seeking permission from the creator through his guardians.”[52]

Concerns of the Blaans.[53] Being nomads, the Blaans are scattered across the different areas of the proposed mining site. Some settlements have an access road, while others are located along the mountainous parts of the direct impact area. Those in the nearby areas are generally open to the idea of mining in Tampakan, while those in the mountains are adamant on the presence of mining companies.

Living close to nature, the Blaans are concerned about the impact of mining on the environment. They fear that mining may result in landslides due to deforestation as well as pollution which they believe to be caused by mining.

As an indigenous peoples, they are also concerned about the preservation of their culture and practices. However, this concern of theirs has been outweighed by what they perceive to be the potential benefits of mining—employment opportunities, education scholarships, capacity building seminars, infrastructure, reforestation, assistance for agricultural projects, and community health projects and increased incomes.

Still, the Blaans are concerned about the employment opportunities available in the mining company. They argue that SMI's hiring process does not prioritize them, as shown by the fact that most of the hired Blaans are employed to provide manual labor work is rotational with only five to ten males from every tribe hired every week. Further, only a few Blaans have been hired to fill desk jobs. Another issue is that most of the available employment opportunities are limited to the young people.

As for the relocation program, the Blaans want a better place, that is, somewhere near enough for them to be able to see their ancestral lands. They do not want to be relocated near the city or to any urban area, because of the high cost of living and the noise level.

Some of the older Blaans also want to see the SMI operate before they die, to experience progress and development, and to see more job opportunities available in the community. Some Blaans have likewise said that if they cannot meet the job qualifications and requirements set by SMI, then they are willing to take on menial jobs or any regular paying job like that of a janitor.

According to the members of the Tribal Council of Pula Bato, "We see the economic benefits that the mining operation can provide; thus we are all for mining." When asked about the anti-mining groups, the council clarified that even before SMI was around, the NGOs and the Church already had a strong presence in the community. However, the Blaans also realized that these groups could not present any real alternative towards economic or social change.

Currently, there are no urgent or major complaints against SMI. The members of the tribal council said that they will follow the will of the chieftain, for so long as it is for the greater good of the community. They have expressed appreciation for SMI's efforts to tour them around other mine sites, and inform them about the positive and negative effects of mining, as well as the different types of mining. One of the most memorable experiences of the Blaans interviewed was the trip to other mine sites—Atlas, Philex, and TVI. By observing how mining was conducted in these companies, the Blaans began to see the potential contributions of mining to the community.

Church and Environmental NGOs. Since the 1990s, opposition to mining operations in Tampakan has been strong, particularly in the indirect impact communities, with the Diocese of Marbel and environmental NGOs leading the way. (See Exhibit 3.)

The Diocese of Marbel strongly opposed mining in South Cotabato. In a statement released by Bishop Dinualdo D. Gutierrez, DD. (2008), he argued that mining is not against development but this should be carried out in a "moral, fair, just and sustainable utilization of natural resources."[54] He posited that the presence of large-scale mining can aggravate global warming, climate change, and food shortages. His primary concern was the impact of mining on agriculture, which is the primary source of livelihood of the affected provinces. He said that "Land use conversion of watershed, forests and/or agricultural areas deprives thousands of farmers and fisher folk in SOCSARGEN[55] of their sustainable source of livelihood."[56] He concluded, "The clergy will continue to be determined and united in its stand

against any undertaking that promotes only corporate greed like large scale open pit mining, undermining environmental, social and economic justice, ecological balance and cultural legacy for the present and future generation."[57]

Local Government.[58] Since the proposed mine site is situated in the quad-province boundary of South Cotabato, Sultan Kudarat, Sarangani, and Davao del Sur,[59] it covers seven barangays, four municipalities, four provinces and two administrative regions. In summary, the local government executives that must be dealt with are the following: seven barangay captains, four municipality mayors, four governors, and the regional directors of different government line agencies directly or indirectly involved in mining and/or development programs such as DENR, MGB, Department of Interior and Local Government (DILG), National Commission on Indigenous Peoples (NCIP) and Department of Trade and Industry (DTI). Aside from these government officials, it is important to note the presence of provincial government boards and councils that act as advisory bodies in the areas of public administration, community development, health, environment, and economic growth.

According to the acting local municipal mayor of Tampakan, SMI and the community have a good working relationship. He mentioned that SMI brought financial stability to the local government of Tampakan through the taxes SMI paid, which transformed the municipal town from a fourth-class to a second-class municipality. Aside from the taxes, he emphasized the importance of the social development programs participated in by his constituents.

On the other hand, the barangay captain of Pula Bato said that SMI is one of the few companies that really cares for the community. Among the clear benefits SMI has given, according to him, are employment and education through scholarship programs. He cited the Memorandum of Agreement with Technical Education and Skills Development Authority (TESDA), which yielded certificate training programs in welding, masonry, carpentry, mechanics, automotive, electrical, and computers and 75 graduates. In March 2010, he said, a technical course on heavy equipment was to be offered in his barangay, in anticipation of the start of mining operations. He also lauded the health program of SMI, which consisted of a weekly feeding program for senior citizens, and provided assistance and training to midwives. Lastly, he also mentioned how SMI secured PhilHealth cards for the Blaans.

According to the chief of the Provincial Environmental Management Office (PEMO) and the director of the MGB, SMI has a good track record compared to the other mining companies operating in the region. The chief said that SMI can be classified as one of the best, especially since it is into "best practices."

In terms of the acceptability of mining and support for mining in their community, both the acting mayor and the barangay captain expressed their full support for SMI. However, they emphasized that their support was contingent on the company's commitment to responsible mining practices. The barangay captain said:

> Mining is already part of our lives. This is because mining is about extracting resources. As long as SMI is helpful and acceptable, then the community will support the mining industry. There was a time when some indigenous peoples from Australia came to speak against WMC and the mining industry. However, we later found out that the indigenous group was rallying against the company because they lost out to another group for the rights to claim a mining area. Aside from this, those who are against mining have no real alternative in terms of livelihood and other development programs. Responsible mining is adherence to all the provisions and best practices involving mining following the Mining Act, and becoming transparent to the community.

After closely monitoring the interactions and events surrounding the mining operations, the barangay captain raised several issues pertaining to the malpractices of some stakeholders:

- Some tolerate and follow informal standards in measuring the distance between plants on the ground.
- Some employees are in collusion with the landowners in matters of crop compensation and land access. There were instances when the transportation path of the SMI machineries were bare in the first few days, only to reveal crops on "supposedly bare land" when the machines were removed from the area.
- Some internal people are instigating the setting up roadblocks, most of them from the "leftist group."
- Some project-based employees have been asking for the support of the people/ community for them to be regularized and instigate them to put up block roads.

The barangay captain suggested that just compensation needs to be explained to all the parties involved—tribal communities, SMI employees, SMI contractors, and residents of the barangay. Failure to identify and effectively disseminate this information, and to strictly implementing the process has resulted to the company's always being taken advantage of.

The barangay captain added that SMI needs to manage its employees and train them on the proper procedure in dealing with the community. He also mentioned how they appeared to be "ghost employees" working for the company. He said that there is a need for the company to provide regular employment rather than mere salary.

In the case of road access or roadblocks, the company needs to be strong in dealing with the community. There have been issues involving SMI employees and the company's contractors, with regard to the jobs offered by the human resources department. At times, he said, SMI posts an employment offer only for the sake of compliance, when, in fact, someone was already being considered for the position. Finally, according to the barangay captain, SMI needs to ensure the equitable distribution of employment, wealth and opportunities.

Local Government Partnerships and Collaboration. To ensure sustainability and compliance, SMI partnered with two other government agencies at both the economy and regional levels: the Provincial Environmental Management Office (PEMO) in South Cotobato and the DENR-MGB. SMI is also working in close coordination with other government agencies attached to the DENR, and with the DTI, the Department of Labor and Employment, the National Irrigation Authority, and other line agencies that have direct and indirect impacts on mining.

PEMO, MGB and SMI signed a joint agreement on enforcement vis-à-vis illegal mining operations. Illegal miners conduct hydraulic mining, which has a severe impact on the environment and ecosystem in the mine site. Although under the Financial and Technical Assistance Agreement (FTAA), SMI is responsible for policing the area, SMI has found enforcement difficult due to the sensitivity of the issue.

Security Stakeholders: NPA And Bandits. SMI identified several organizations that seriously affect the company's operations: insurgent groups like the New People's Army (NPA),[60] criminal syndicates responsible for kidnapping and petty crimes, anti-mining groups in the form of local and international NGOs (women's groups, Bagong Alyansang Makabayan,[61] the MORO group, the South Cotabato Purse-Seiners Association,[62] Kilusang Mayo Uno[63]),and environmentalists such as the Legal Rights and Natural Resource Center,[64] the police and the military. However, SMI personnel have indicated that their major concerns are the armed groups, the Blaans, and the presence of small-scale mining operations in the project area.

Based on the incidence reports, the NPA and IP are giving the four provinces security problems. They have been threatening the peace and order situation in Tampakan and Columbio. Kiblawan in Davao del Sur and Malungon in Sarangani Province also have problems with the NPA; while Sultan Kudarat has experienced election-related violence.

In January 2008, the NPA launched a "New Year" attack whereby 30 to 40 rebels raided the SMI base camp and a military detachment in Barangay Tablu, Tampakan. According to the Senior Superintendent of the South Cotabato police, "There were exchanges of gunfire, but no one was reported injured. The communist rebels burned the administration building [of Sagittarius] and [the facility of] United Philippines Drilling. The quarters of the security guards and the other buildings were also destroyed."[65] The resulting damage was estimated at PhP12 million.[66]

A press release of the political arm of the NPA, the Communist Party of the Philippines, stated, that through their actions, they meant to "put a stop to the firm's destructive and plunderous mining operations; defend the ancestral domain of the Blaan tribe; protect the environmental balance of the Liguasan Marsh and the water supply of South Cotabato, North Cotabato, Sultan Kudarat and General Santos City areas; and resist the Arroyo regime's campaign to auction off the economy's natural resources to big foreign capitalists."[67]

A press release of the political arm of the NPA, the Communist Party of the Philippines, stated:

> Yesterday's raid against SMI is an important milestone in the effort to put a stop to the firm's destructive and plunderous mining operations; defend the ancestral domain of the Blaan tribe; protect the environmental balance of the Liguasan Marsh and the water supply of South Cotabato, North Cotabato, Sultan Kudarat and General Santos City areas; and resist the Arroyo regime's campaign to auction off the economy's natural resources to big foreign capitalists.[68]

Seven months after the first attack, communist guerrillas reportedly shot and wounded two Philippine soldiers "after an attack that saw drilling equipment owned by the Swiss-based mining giant Xstrata set on fire."[69]

The company's operations are affected when such incidents take place because mining-related activities are immediately suspended when these happen.

In 2009, there was no security incident involving the NPA in the Tampakan Project.[70]

Response of SMI to Threats. Since the mine site was in a conflict area, SMI needed to increase its security protocols. In 2008, the NPA incident made SMI aware of security risks. SMI also recognized the "limitations" of public security and government authorities in terms of providing adequate resources to protect both SMI and its host communities.

In dealing with future security concerns, SMI intends to follow the Voluntary Principles (VPs) on Security and Human Rights. Accordingly, SMI trained its security forces and employees taking the VPs into consideration. SMI sponsored training activities organized by the Minerals Development Council, the Chamber of Mines of the Philippines, and the Philippine Business for Social Progress (PBSP). These activities were attended by people from the government, NGOs, and the business community.[71]

SMI also partnered with the PBSP in the implementation of the VPs. In 2009, the partners started to roll out the project. The first seminar was for the company staff and supervisors, while the second training was given to 180 security guards onsite.

SMI also has a firearms policy which states the rules of engagement. Security personnel are trained not to engage first; but should there be a need to engage, the security personnel are to disable and not kill. If fired upon, they should fire a warning shot in return. This policy has given security personnel the feeling that they are being restrained; but if the company is able to change their mindset, the program may yet be successful in deterring violence at the mine site. After every such incident, an internal investigation is conducted to assess if the security guard who fired his weapon had followed the code and guidelines.

The long-term goal of the company is to end the culture of violence in the project area through training. In addition, SMI is addressing security and human rights challenges "through constant and regular dialogues with the local governments and authorities to explore the most appropriate and sustainable ways to ensure the safety, security, health and environment of project stakeholders."[72]

SUSTAINABILITY CHALLENGES

SMI's sustainability challenges include:

Open pit mining and the proposed South Cotabato Environment Code. Guided by the technical and environmental survey it has conducted, SMI will use the open pit method of extraction. However, in 2009, the Sangguniang Panlalawigan, which is the provincial legislative council of South Cotabato, proposed an Environment Code that bans open pit mining in the province.[73] Various stakeholders have since expressed their support for SMI and argued the constitutionality of the South Cotabato Environment Code. But, the issue has not been resolved.

Sarangani Province to be part of the project's footprint. Per the results of the field research surveys, Sarangani Province will be affected by the mining operations. As such, SMI is challenged to ensure that all stakeholders (including those in Sarangani) are informed about the potential impact of the project. Currently, it is continuing to undertake "extensive, open and transparent public consultation with stakeholders regarding the development of the Tampakan Project."[74]

Illegal small-scale mining activities. Despite the continued coordination with the local government in implementing security measures, illegal small-scale mining activities continue to exist in the project area. SMI therefore has to determine how it can limit the presence of illegal miners. Its strategy has been to "continue to support sustainable livelihood programs and capability-building initiatives for local communities to provide alternate employment and income-generating opportunities for communities." SMI believes that the creation of employment and other income-generating activities for the local communities might just reduce the number involved in illegal mining activities.

Distribution of economic benefits. Mining activities generate economic returns for the local communities through royalties and social development initiatives. SMI's challenge is to ensure that the economic benefits are "invested into regional communities and are shared equitably among the provinces hosting the operations."[75]

Resettlement. With the Tampakan project considered one of the largest undeveloped copper-gold mines, it is inevitable that households will be affected by it. According to the studies conducted, about 850 households can be found within the proposed mine development area. Before conducting the resettlement program, however, SMI needs to "gain free and prior informed consent from affected land occupants, IP, and non-IP."[76]

Security and human rights. Located in Mindanao where there is a prevalence of small bandits and armed groups, SMI is always concerned about the safety of its employees and of the local communities amidst the presence of "criminal groups and individuals [who] possess unlicensed firearms in the Project area" and "pose a continuing threat to community members." In addressing this concern, SMI has adopted the Voluntary Principles on Security and Human Rights (VPSHR) and hired a licensed, private security service provider. It seeks to ensure constant dialogues with local government officials and authorities.[77]

Food and Water Security. Since agriculture is the main livelihood of the local communities affected by the Tampakan Project, SMI needs to ascertain that the local farmers are equipped with the latest farming techniques and that its operations have minimal impact on the environment. SMI supports local farmers through the Tampakan Farmers Federation, and its investment in community food security and livelihood programs. In addition, SMI is conducting specialist studies on key areas such as soil and land use, ground and surface water, terrestrial and freshwater biology, and site rehabilitation, in accordance with the Tampakan Project's ESIA.[78]

For the sake of water security, SMI has undertaken extensive baseline monitoring studies that assess water quality, surface and groundwater flow, aquatic biology, and rainfall in the region.[79]

APPLYING BEST CSR PRACTICES

CSR Drivers—From Management To International Investors And Local Stakeholders. Echoing Xstrata's Sustainable Development Framework, Mark Williams, General Manager of the Tampakan Project, said:

> The Tampakan Project offers enormous potential to create sustainable social and economic benefits for neighboring communities and the Philippines as a whole. It is being developed in accordance with leading international practice standards, with particular emphasis on transparent and open engagement with communities and other stakeholders at each stage of the project. In doing so, we aim to create a new model for responsible minerals development in the Philippines.[80]

Given the long and complicated history of mining in the area, SMI is committed to ensure that its operations are socially responsible. It addresses external stakeholder concerns during consultation meetings and campaigns, and actively seeks the support of the local government and the DENR. This is clearly expressed in SMI's website:

> SMI continues to demonstrate its commitment to social responsibility by contributing to the social, economic and institutional development of our communities by forging meaningful partnerships with our stakeholders.

> In keeping with this commitment, we [SMI] have implemented in 2008 the Tampakan Social Involvement Program (SIP), which was formulated following an extensive stakeholder consultation process. The SIP indentifies and defines the projects that best respond to the key social challenges and opportunities in the host and neighboring communities. By focusing on education, health, skills training and enterprise development, it aims to help communities establish sustainable economies that can survive long after its operations end.

Changing the Local Community's Mindset. The local communities around the Tampakan mine had heavily relied on the assistance of mining companies that operated in the area (e.g., Western Mining Corporation) in the past. As a result, when SMI came in, they expected it to take care of the concerns and needs of the communities, and to assume the role of the local government as its predecessors had done.

SMI wants to change their expectations, however. To start doing so, it is strictly implementing its employment and social investment policies. For example, the CCSD department expects that all departments and teams which hire rotational workers follow the employment qualifications of SMI. Doing so will limit "cut-throat hiring" among the tribal communities. There still remain some ongoing issues regarding the hiring process of SMI, nonetheless.

To further strengthen its policies, SMI has been instituting education campaigns to help the local community understand the role of the company: to guide the community toward development. The information campaign and the consultations are reinforced by SMI through its livelihood programs. Furthermore, continuous consultation with the stakeholders is being conducted. Williams claims:

> We believe the project has the potential to significantly enhance the standard of living for communities in the region, however we also recognize that some stakeholders have concerns regarding the proposed project.
>
> We remain committed to progressing the project in a responsible and sustainable manner and we will continue to undertake extensive, open and transparent consultation with all stakeholders regarding our plans for the project.[81]

Ingrained Concept of "Best Practice." SMI has ensured that the concept of "best practice" is imbibed by its employees and contractors. This mission is strongly advocated in programs geared toward establishing a culture of safety and addressing stakeholder concerns, while employing a holistic approach to field survey research.

In terms of the culture of safety, SMI did not record any incidents of injury or illness that resulted in the non-completion of a work shift in 2009. From May 2008 to January 2010, the employees and contractors worked for more than five million man-hours with no Lost Time Injury (LTI) either. According to SMI, this was achieved because SMI employees and contractors have embraced the goal of "zero harm." The company said, "The safety measures we have implemented such as holding regular safety talks, departmental audits, and behavior-based safety programs have been widely accepted throughout the business."[82]

In 2009, SMI also promoted this culture in its surrounding communities through the Heavy Equipment Safety Program, launched in Kiamco Kimlawis. The SMI Safety Superintendent said, "When SMI's operations are complete, the training we have conducted and its impact on the community will be our most significant legacy."[83]

To address stakeholder concerns, SMI established a grievance mechanism that would resolve the complaints, issues and concerns of stakeholders who are directly and indirectly affected by its operations. It aims to ensure that the company is able to "effectively communicate and consult persons and institutions interested or impacted by the company's activities, as well as ensure compliance with any laws, regulations and standards by means of an effective management system including data and document control."[84]

The grievance mechanism is aligned with international standards in ensuring transparent communication with the stakeholders. It was designed to "meet corporate social involvement strategic objectives," and "to align with local culture and practices, containing elements to promote its adoption by locals."[85] In 2009, SMI received 16 company-related complaints, down from the previous year's 32. These complaints were usually related to employment opportunities, land ownership, security, crop and land use compensation. In 2009, only one complaint was left unresolved. There was no complaint recorded in May and from July to October 2009.[86]

Aside from the grievance mechanism, SMI was also committed "to extensive, open and transparent public consultation" with all project stakeholders. The pre- and public consultation meetings aimed to:[87]

- inform stakeholders of the key components of the proposed mine;
- formally announce the start of the ESIA process to stakeholders and the community;
- inform stakeholders of the ESIA process and the associated stakeholder engagement process; and
- elicit and record stakeholder issues and concerns in relation to the Project.

SMI voluntarily conducted pre-scooping stakeholders meetings to ensure that the stakeholders were well-informed and had the opportunity to provide feedback. From September to December 2009, SMI organized 43 private consultation meetings with an estimated 2,863 individuals from 94 stakeholder groups. From 17 to 20 November 2009, SMI held four public scooping meetings where it informed the public on the benefits of mining in Tampakan. During these meetings, about 579 stakeholder issues were raised, categorized as follows: (1) environment and social impact issues, (2) land access and resettlement, (3) free and prior informed consent, (4) project benefits and (5) company operations.

Lastly, SMI takes on a holistic approach in conducting field survey research. The Heritage Survey team formed coordinates with local barangay officials before a visit and engages duly designated barangay representatives for the actual survey. Cultural surveys are simultaneously conducted with safety, environmental and technical surveys. The cultural heritage survey seeks to determine the presence or absence of a culturally sensitive site and to conduct land valuation that includes the computation of compensation for land access and for affected and/or damaged crops. Through the cultural heritage survey, SMI discovered six burial sites, which increased the number of cultural heritage sites to 33.[88]

CONCLUSION

Despite the prevailing challenges faced by SMI, its management continues to view the Tampakan Project's milestones both as essential steps towards its eventual operation," and as proof that responsible minerals development can and will bring about genuine and sustainable development for Mindanao and the Philippines." Mark Williams, the SMI General Manager, announced that the Tampakan Project shall continue to be "a genuine partnership between the company and our government and community stakeholders."[89]

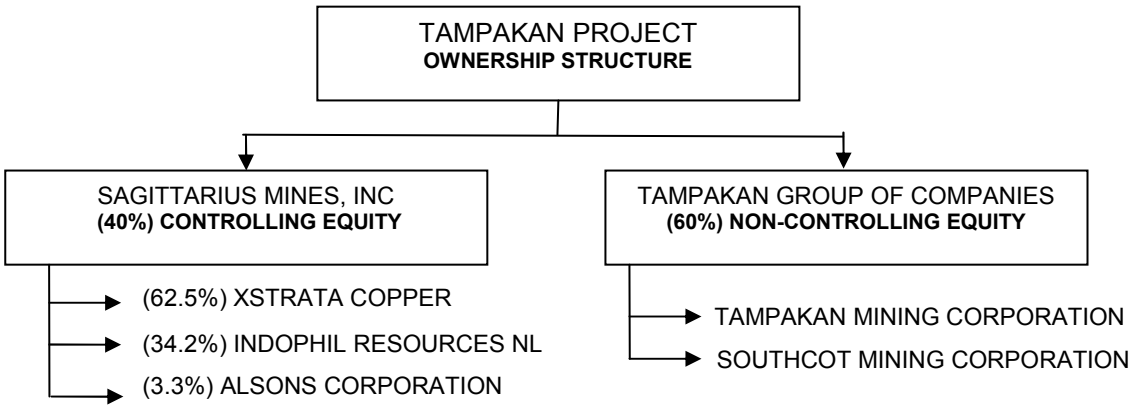
EXHIBIT 1
HISTORY OF MINING IN TAMPAKAN MINE AND
OWNERSHIP STRUCTURE OF TAMPAKAN PROJECT

History of Mining. Mining in Tampakan dates back to the 1960s. Mining initiatives were revived in the 1980s with the discovery of the Diwawal mining site. Since then, local and foreign companies have carried out numerous applications and assessments in the area.

Formal and systemic exploration activities were implemented in the 1990s. In November 1990, the Tampakan Group of Companies (TGC)[90] invited a geologist from Western Mining Corporation Philippines (WMCP)[91] to conduct preliminary field inspection. By April 1991, both parties reached an Option Agreement based on the inspection results that confirmed the presence of copper and gold minerals in the area. From 1991 to 1992, WMCP conducted a series of exploratory drilling activities where it found "low to moderate grade copper and gold mineralization" that clearly indicated the discovery of a "major copper-gold resource." The discovery led WMCP to apply for Financial or Technical Assistance Agreements (FTAA) from the Philippine Government.[92] In May 1995, the FTAA was awarded to WMCP for an initial land area 896.69 square kilometers.[93] Due to "financial constraints and growing opposition from the local residents," WMCP transferred its FTAA to SMI, which took over the Tampakan project in 2002.[94]

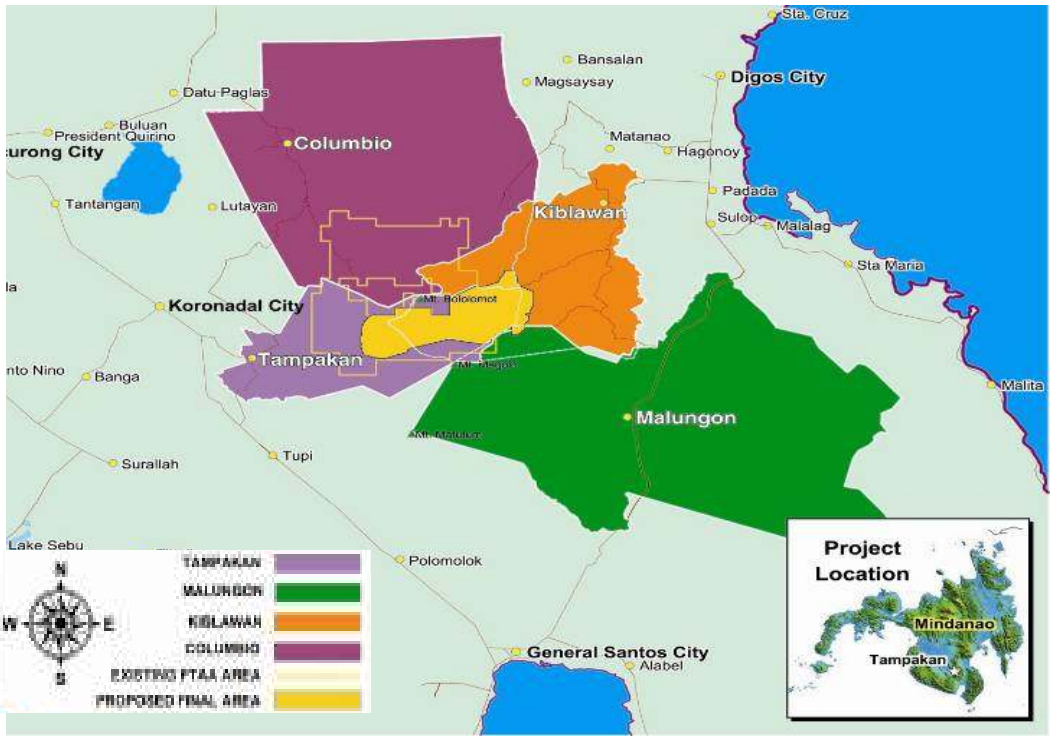
The Ownership Structure of the Tampakan Project. Xstrata Copper[95] is a subsidiary of Xstrata Plc, a "major global diversified mining group," listed in the London and Swiss stock exchanges. Its headquarters can be found in Zug, Switzerland.[96] As a development mining company, Xstrata Copper provides technical support, as well as financial and management assistance in the Tampakan Mine.

Indophil Resources NL is a mineral exploration company registered in Australia. Alsons Corporation is a Filipino conglomerate that assists in building gathering financial support for the Tampakan Mine; it is present during the Joint Venture Management meetings. Lastly, the Tampakan Group of Companies consists of local businessmen who have long been involved in the exploration of the Tampakan Mine.



Source: Sagittarius Mines, Incorporated.

EXHIBIT 2:
TAMPAKAN PROJECT LOCATION



Source: Sagittarius Mining Inc.

EXHIBIT 3:
THE DIOCESE OF MARBEL AND ITS ANTI-MINING STANCE[97]

The diocese of Marbel is saddened by the change of heart of the Blaan communities. The communities have allowed the Tampakan Mining Resources Corp. (TMRC) to conduct mineral exploratory activities in the area, while the diocese remains steadfast in its advocacy and education to oppose mining in light of its supposed ill-effects on the environment and the community.

Be that as it may, the diocese of Marbel holds that:

- The presence of TMRC/SMI in Tampakan has caused divisions among the indigenous peoples. Already, this is evidenced by the developing materialistic preference of a good number of them.
- The presence of mining activities in Tampakan is an encroachment on ancestral domain and can lead to the dislocation of the IP.
- What is at stake is not only the welfare of the IP communities in the area upstream, but also the welfare of the populace downstream toward Liguasan Marsh. Mining operations would result to soil erosion thus clogging lowland irrigation system. Besides, Tampakan is considered a watershed area and is the headwater source of five major rivers in the province of South Cotabato and Sultan Kudarat. Any mining operations within the area would adversely affect the water supply in the SOCSARGEN area.
- Any mining operation is detrimental to the indigenous flora and fauna. It will produce a negative impact on the biodiversity of the area, and will result to the deterioration of environmental quality which is vital to sustain biological life.
- Any form of mining operation will endanger the integrity of creation.

Therefore, the diocese of Marbel, together with different stakeholders, strongly believes that it is her mission to continue the campaign against mining activities in the area of Tampakan. The diocese has never changed in her anti-mining position and will never waver in her advocacy to protect the life of the present and the future generations, the environment, and the integrity of creation.

October is IP month with the theme “Kulturang Lumad, Nakaugat aåa Yutang Kabilin”. To highlight this occasion, a caravan rally from the City of Koronadal to the Municipality of Tampakan took place on 18 October 2004. This was participated in by all the parishes in the diocese, and by the members of the Coalition of Anti-Mining Movement (CAMM) and the partner NGOs and POs of the SOCSARGEN-Maguindanao area.

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[14] Xstrata. "Sustainability: Our Approach," <http://www.xstrata.com/sustainability/ourapproach> (October 2010).
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[25] Sagittarius Mines Inc. "Environment: Rehabilitation and Reforestation," <http://www.smi.com.ph/environment_rehabilitation.cfm> (March 2011).
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[27] Ibid.
[28] Ibid.
[29] Ibid.
[30] Ibid.
[31] Madeline D. Cabrera, "Opposition to $5.9B mining project weakening," *Malaya*, 16 March 2011, <http://www.malaya.com.ph/mar16/busi3.html> (April 2011).
[32] Sagittarius Mines Inc. Presentation at *Newsbreak*'s Media Dialogue on CSR, Davao City, 27 August 2007.
[33] Sagittarius Mines Inc. "Community: Community Development Programs," <http://www.smi.com.ph/community_development.cfm> (October 2010).
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[53] Unpublished interviews of the RVR Center for Corporate Social Responsibilities (2010).
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[55] A business district made of South Cotabato, Sultan Kudarat, Sarangani, and General Santos City
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[60] "The NPA was established on March 29, 1969 with 60 Red fighters armed with 9 automatic rifles and 26 single-shot rifles and handguns. By carrying out tactical offensives, the NPA is able to accumulate arms and weaken the reactionary mercenary troops. Currently, the NPA has a sum total of at least three divisions or nine brigades or 27 battalions of full-time Red fighters with high-powered rifles. These are augmented by tens of thousands in the people's militias and further on by hundreds of thousands in self-defense units of the mass organizations." (Source: <http://www.philippinerevolution.net/orgs/npa.shtml>)
[61] "A multi-sectoral campaign center for its member organizations nationwide. Its range of activities include fora, seminars, lobbying, pickets, marches, demonstrations and people's strikes; Works with other patriotic and progressive organizations and individuals based on the principles of consensus, independence and initiative; Supports progressive candidates and parties in elections; Conducts education campaigns on the economy's basic problems and how to solve them in ways that are democratic and people-oriented; Initiates and/or promotes socio-economic relief and rehabilitation projects in support and in defense of the democratic rights of internal refugees and other victims of militarization and natural and man-made calamities, especially among the peasants and minorities in the rural areas." (Source: <http://www.bayan.ph/about%20bayan.php>)
[62] South Cotabato Purse-Seiners Association "consists of 41 fishing companies that operate group purse seine fishing vessels (which have a carrying capacity of about 20 to 150 gross tons). This group has at least 160 purse seine sets or 1,120 vessels, manned by approximately 10,500 crewmen." (Source: Romer Sarmiento. "Pacific tuna fishing ban won't affect RP – experts," June 2008, <http://www.gmanews.tv/story/103078/pacific-tuna-fishing-ban-wont-affect-rp-experts> (October 2010).
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[64] The Legal Rights and Natural Resources Center - Kasama sa Kalikasan (LRC-KsK/Friends of the Earth-Philippines) is a policy and legal research and advocacy institution organized as a non-stock, non-profit, non-partisan, cultural scientific and research foundation duly registered with the Securities and Exchange Commission (SEC). LRC-KsK's overall mission is to work for the empowerment of marginalized indigenous people and rural communities directly dependent on natural resources. The Center believes that it is through the empowerment of women and men in marginalized communities directly dependent on our resources that a sustainable, equitable and gender-just use and stewardship of our natural resources is viable. (Source: <www.alyansatigilmina.net/links>)
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[73] Ibid.
[74] Ibid.
[75] Ibid.
[76] Ibid.
[77] Ibid.
[78] Ibid.

[79] Ibid.
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[82] Sagittarius Mines Inc. “Sustainability Report 2009,” <http://www.smi.com.ph/userfiles/file/SR09%20Final%20Copy%283%29.pdf> (December 2010).
[83] Ibid.
[84] Ibid.
[85] Ibid.
[86] Ibid.
[87] Ibid.
[88] Ibid.
[89] Ibid.
[90] The Tampakan Group of Companies (TGC) is a group of local mining claim owners in the district.
[91] Western Mining Corporation Philippines (WMCP) was a wholly-owned subsidiary of Western Mining Corporation Holdings Limited of Australia.
[92] A "financial or technical assistance agreement" is a contract involving the extension of financial or technical assistance for the large-scale exploration, development, and utilization of mineral resources (Philippine Mining Act 1995)
[93] Indophil Resources NL. “Discovery History: Tampakan Copper-Gold Project,” <http://www.indophil.com/discovery_hist.asp> (October 2010).
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[95] “Xstrata Copper is one of the commodity business units within the major global diversified mining group known as Xstrata plc. Its mining and processing operations are located in five countries: Australia, Argentina, Chile, Peru and Canada. Its copper development projects are in Las Bambas, Peru; El Morro, Chile; El Pachon, Argentina; Frieda River, Papua New Guinea; and Tampakan, Philippines. In terms of copper production, Xstrata Copper is the world’s fourth largest with an annual managed production of over one million tonnes of copper. (Source: SMI presentation. *Newsbreak*’s Media Dialogue of CSR. Davao City, 27 August 2007.)
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PT INTERNATIONAL NICKEL INDONESIA (PT INCO) TBK

PT[1] International Nickel Indonesia Tbk (PT Inco) has been operating in Indonesia for more than 30 years. By virtue of its Contract of Work (CoW) with the Indonesian government, the company has the right to mine in South Sulawesi province, Southeast Sulawesi province and Central Sulawesi province, which together cover a total area of 218,529 hectares (ha). Headquartered in Jakarta, Indonesia, the company is one of the world's leading nickel producers. In its integrated facilities in Sorowako, South Sulawesi province, PT Inco is engaged in the processing of nickel products in matte,[2] an intermediate product, from laterite ores. The entire production is sold on a long-term contract base. Nickel is considered a versatile metal essential to improving living conditions and promoting economic growth in Indonesia.

Incorporated in July 1968, PT Inco is a subsidiary of Vale Inco Limited (formerly Inco Limited) of Canada, a major world producer of nickel that holds 60.8% of PT Inco's shares. Sumitomo Metal Mining Co. Ltd, one of the leading companies in mining and smelting in Japan, owns 20.1% of PT Inco, while the public and other shareholders own the remaining 19.1%.

PT Inco has long-term CoWs with the government of Indonesia. The first contract signed in 1978 covered the period 1978-2008. In 1995, the contract was extended for another 30 years to 2025. This long-term CoW is considered to be among the important assets of PT Inco in Indonesia.

FIGURE 1: THE LOCATION OF PT INCO'S OPERATION

Under the contract, PT Inco covers a total area of 218,529ha, broken down as follows: 36,635.36ha in Central Sulawesi province, 118,387.45ha in South Sulawesi province and 63,506.18ha in Southeast Sulawesi province. PT Inco had three major mining areas, namely, Sorowako East Block, Sorowako West Block and Petea, all located in South Sulawesi province.

This case study was written by Rosidah (bt) Syaukat with company clearance from PT Inco for use in academic discussions.

Rosidah obtained her Masters Degree in Business Administration at the Universiti Kebangsaan Malaysia. While based in Malaysia, she worked as a Technical Expert for the Malaysian Ministry for Higher Education and other management research projects.

The company estimates that its ore reserves could support the operation for approximately 30 years, using the current technology. In addition, some potential locations where drilling is ongoing are found in Bahodopi (Central Sulawesi), Pomalaa (Southeast Sulawesi), the outer portions of Sorowako and the coastal areas.

THE MINING INDUSTRY

Indonesia is an archipelago of 17,508 islands. It had a population of around 230 million. The economy, whose capital is Jakarta, has five major islands: Sumatera, Java, Kalimantan, Sulawesi and Papua. Administratively, Indonesia has 33 provinces. Each province subdivided into regencies or districts, and the cities are further subdivided into sub-districts and, again, into villages.

Starting 2001, Indonesia began to implement the new policy of regional autonomy after more than three decades under a centralized government. The main objectives of the regional autonomy policy were to promote better delivery of government service and raise the level of local government accountability. The central government devolved authority to the local government, covering all the administrative sectors that the latter handled, except for security and defense, foreign policy, monetary and fiscal matters, justice and religious affairs (Law No. 22, 1999). As a consequence, the local government had to reform its internal structures to accommodate the increase in responsibility passed on to it by the central government.

The Mining Industry in Indonesia

Indonesia is rich in mineral resources such as coal, copper, gold, nickel, oil and tin. Its mining industry has the potential to make a larger contribution to the economy's economic development as it provides significant employment directly at the mine site and indirectly through the goods and services supplied by Indonesian sources. In 2004, the mining sector engaged about 0.5% of the labor force and accounted for about 3% of the GDP of Indonesia.[3] That same year, mining products made up 6.5% of total exports. In terms of value, coal, copper and nickel concentrates were the leading mineral exports.

Foreign investors had always been interested in investing in the Indonesian mining industry. Thus, the government of Indonesia promulgated Law No. 1 of 1967 on foreign investments and Law No. 11 of 1967, which provided the main framework for the mining industry. These laws attract investors to the sector because the concept of mining rights and the CoW guarantees to investors legal and some business certainties. There are big mining companies in Indonesia such as the PT Freeport McMoran Indonesia (which mines for copper and gold in Papua), PT Newmont Nusa Tenggara (which is into greenstone mining in West Nusa Tenggara), Exxon Mobile Aceh (which mines for natural gas in Aceh) and East Kalimantan Prima Coal (which mines for coal in East Kalimantan). Besides PT Inco, there is another big player in the mining sector in Indonesia: PT Aneka Tambang (PT Antam). PT Antam is an Indonesian limited liability state corporation with operations in Pomalaa, Southeast Sulawesi province, and in Gebe, Gee and Tanjung Buli in North Maluku province.

The government of Indonesia recognizes how mining activities in Indonesia have helped develop the remote areas in terms of basic infrastructure and increased employment. Mining also increases the revenue of the central government since mining products are considered state property. The Indonesian Constitution of 1945 provides that the state controls natural wealth, which is to be used for the prosperity of the people.

In 2010, in line with the objective of promoting the regional autonomy program in Indonesia, the government passed Law No. 22/2010 regulating public mining areas. This law will also give opportunities to individuals, community groups and cooperatives in the affected mining

areas. The local government (sub-district heads) thereby gained the right to determine or designate a particular area as a mining area, although it still needs to coordinate with the central government on the matter.

According to the Indonesian Chamber of Commerce and Industry (2008), certain developments in the mining sector in Indonesia could be classified into five major categories, namely: (1) constraints related to the characteristics of the mining sector; (2) unstable relations between mining and the other sectors; (3) fiscal policy; (4) the relationship between the central government and the local government; and (5) the company's relationship with the social environment surrounding the mine site.

The non-governmental organizations (NGOs) have continuously been voicing their concern over the damage caused by mining. Though these groups do not deny that mining provides revenue for the state and local governments, they claim that the damage caused by mining contributes greatly to poverty around the mining area. In addition, they perceive Indonesia's capability to minimize mine damage to be low, and believe that the people and the environment will eventually have to pay the price for such damage.

NGOs are particularly concerned about the impact of mining activities in terms of the following, among others: the destruction of the environment and natural ecosystems; the decline in the quality of life in the surrounding communities, especially of the health of the women and children; problems surrounding land acquisition, among them various forms of intimidation and violence; and communities' losing their source of livelihood. Furthermore, compared to other sectors such as agriculture that could absorb up to 43.7% of the local labor force in Indonesia, the mining sector only absorbed 0.13%.

CORPORATE SOCIAL RESPONSIBILITY INITIATIVES IN INDONESIA

In Indonesia, Corporate Social Responsibility (CSR) was incorporated in Law No. 40/2007 concerning limited liability companies. Law No. 22/2001 concerning oil and gas, on the other hand, required mining companies to put up a community development (CommDev) program. In the past, CommDev programs were voluntary; but later, companies with mining operations are held responsible for developing the local community and protecting the environment.

With the institution of regional autonomy in Indonesia, the ordinances covering the operation of oil and gas mining are considered applicable to other mineral mines which, in turn, could not be considered separate from the community and the environment around the mining area. The mining companies thus need to provide a community development program that specifies its mission, target, strategy, implementation and coordination initiatives. Presently, the priority sectors under the CommDev programs of most companies are education, health, and small and medium enterprises.

An investor or company with a CSR program is regarded as a development agent for the affected areas. The development of human capital should be at the center of its development program. Community development is requisite to building the community's strengths and capacity which could, in turn, help improve the quality of life in the community and optimize its resources.

There have been many obstacles in the implementation of CSR in Indonesia. According to some researchers, these obstacles are partly due to the perception of CSR as still being limited to charity, philanthropy and community development. Moreover, in many companies, the CSR policy continues to be handled by the public relations department, when in fact it should be a strategic decision of the company.

PT INCO'S CSR INITIATIVES

In Indonesia, to remain competitive, a company that secures a social license has better chances of being able to acquire inputs, such as access to the land that it needs. Otherwise, a company has to contend with community resistance that could result to many delays, mean extra expenses and/or reputational damage.

For this reason, PT Inco came up with an integrated CSR program for community development. The program focuses on education, health, local economic development, agriculture and fishery, public services, infrastructure and socio-culture, as well as sports and peace. The CSR program, for which the company invested an average of US$7 million annually, was formulated to be sustainable and to ensure the community's independence.

PT Inco's CSR strategy integrates its environmental and socio-economic commitment to last beyond the termination of its mining operations in an area. The company does not want to encourage the dependence of the community, especially after the end of mining operations. Rather, it believes that the community should be independent enough to empower its own resources, and to decide how best to explore these resources without depending on the company.

As shown in the diagram below, the environmental commitment set-up consists of activities such as: (1) the recovery of environmental functions and supporting capacity, i.e., activities leading to the recovery of protected forests and production forests; (2) nature conservation, which consists of the capture of deer and beneficial insects, the setting up of a botanical garden or a butterfly garden arboretum, and an Inco Anoa sanctuary ecosystem; (3) wastewater management and pollution control, which consist of sediment control, lake conservation, soluble nickel management, and the control of $Cr+6^4$ and dust emissions.

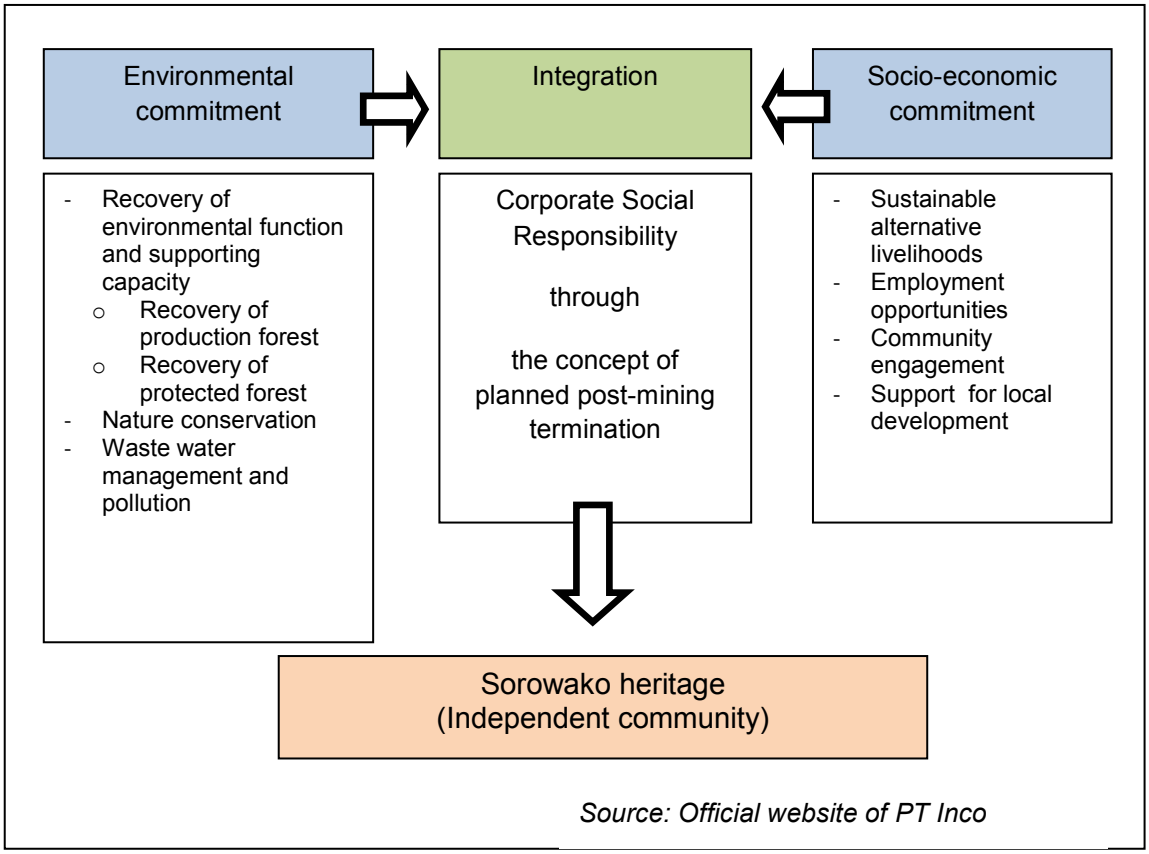


FIGURE 2: THE CSR PERSPECTIVES OF PT INCO

Meanwhile, the socio-economic commitment consists of activities such as: (1) community engagement, which includes institutional development and endowment funds; (2) providing support to local development, which includes activities such as bone bay fishery management, marketing joint ventures, rural bio-energy efforts, the training of farmers and fishermen, and a postgraduate program supporting biodiversity; (3) sustainable alternative livelihoods consisting of community-based polyculture farming, coastal resource management, agriculture and the silk industry, bio-energy plantation, mining tourism and community-based forest management; (4) the creation of employment opportunities outside the mine; and (5) a reduction in the community's dependency on PT Inco.

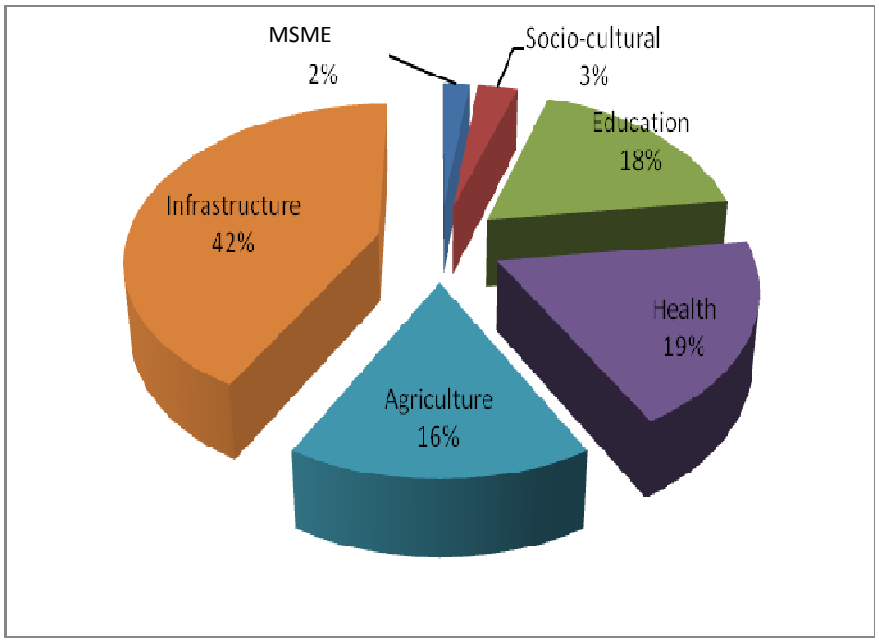
All of these activities are integrated in the CSR initiatives of PT Inco, in its quest to help build an independent community wherever the company operated.

The Community Development Program of PT Inco

The CommDev program of PT Inco expresses the company's commitment to grow and develop together with the community. The vision of the company's CommDev program is for PT Inco to grow together with independent communities that support the company's operational activities using local resources. The company's mission is to facilitate social transformation by promoting a mutually beneficial relationship through technical assistance, information exchange and public discussion on capacity building, as well as the continuous implementation of the results of research.

In the past, the CommDev program used the needs assessment method which was participatory in nature, transparent and responsible. As a result, the community became more mature in empowering itself toward achieving a better quality of life and welfare, the main objectives of the CommDev program.

The current development aspect of the program focuses on six areas, namely, education, agriculture, infrastructure, health, MSME (Micro, Small and Medium Enterprises) and socio-culture (socio-cultural). (See Figure 3 and Table 1.)



Source: Community Development report of PT Inco – 2008

FIGURE 3: COMMUNITY DEVELOPMENT EXPENSES IN THREE PROVINCES - 2008
(South Sulawesi, Central Sulawesi and Southeast Sulawesi)

TABLE 1: KEY ELEMENTS OF THE DIFFERENT COMMUNITY DEVELOPMENTS

CommDev area	Key elements
Agriculture / Farming / Fishery	A noteworthy effort is the cultivation of seagrass in the Malili sub-district, under the United Nation's MDG[5] program. It has yielded satisfactory results not only in terms of production, but also in terms of increasing expertise, organizing groups of farmers and marketing management. The production of seagrass has improved quality and quantity-wise over the years and gave the farmers bigger profits. Nursery – The objective is to prepare seeds for replanting crops in post-mining areas. Local residents provide the seeds of local plants which the company purchases from local cooperatives. The local residents also prepare and supply compost or fertilizer, whose application is for greening purposes and is expected to yield results that can be enjoyed by future generations in the community. In the Malili sub-district, support has been given to the shrimp farmers association that wanted to set up a *Koperasi*[6] (Cooperative). In so doing they were able to coordinate their efforts and obtain bigger benefits yields/profits. Some of the members of this association who had worked with PT Inco previously now want to venture into this activity in their old age. The CommDev program also supports the breeders of chickens and goats. The farmers are guided and monitored on how to effectively manage their livestock.
Education	Continuing the program for the education sector in years 2006 and 2007 meant improving the quality of teachers and providing scholarships to the high achievers who were less financially capable. The company also provided educational infrastructure to support teaching and learning activities. In cooperation with the local government, *Yayasan Pendidikan Sorowako* (YPS or Sorowako Educational Foundation) was conducting a two-year training program whose objective was to prepare students for industrial work. Though these students are not guaranteed employment in PT Inco, thus far, the company has absorbed 80% of two batches of trainees.
Micro, Small and Medium Enterprises	The programs implemented by MSMEs actively involve women. Their outputs using local resources have allowed them to meet local needs and have become a source of family income. For example, the production of the traditional cake in the Malili sub-district shows how the women, especially mothers, produced the confection using the local sago (or tapioca pearls). The product was distributed not only within the community, but also in the surrounding districts. Other MSMEs activities include the production of homemade

shrimp paste by the women, which they marketed out of town. The women have also created rattan furniture, home accessories using recycled materials, etc.

Health

PT Inco promotes programs that created awareness of the importance of disease prevention and maintaining health. Such programs have proved effective and have been targeted in the belief that developing healthy habits at an early age is crucial. In the health facility of PT Inco, medical aid has been made available to the local community, whose need for health services remains high.

Socio-cultural

The company has prioritized the strengthening of the role and capacity of the community organization in its area of operation. Strengthening capacity is a strategic step in developing the organization and its instruments within the community. Within this context, efforts to strengthen organizational capacity has had to focus on developing leadership, motivation, direction, strategy, control, discipline, the structure and design of the organization, systems and procedures, cooperation and conflict management. The lack of an enthusiastic spirit to move forward, resistance to change and poor management have impeded the community organization's role as an agent of change. The community-based organization still needs to emerge, grow and develop its capacity to be able to gain access and influence.

COMMUNITY PROFILE

East Luwu (LuwuTimur), South Sulawesi

East Luwu district (LuwuTimur) is one of the districts in the province of South Sulawesi. It was established in accordance with Law No. 7/2003, which provided for the creation of the East Luwu and the North Mamuju districts. The East Luwu district is an extension of the North Luwu district.

East Luwu district covers 11 sub-districts:Towuti, Nuha, Wasuponda, Malili, Angkona, Tomoni, East Tomoni, Mangkutana, Kalaena, Wotu and Burau. Measuring 694.49ha, it accounts for about 11.14% of the South Sulawesi area. PT Inco has implemented the CommDev program in the sub-districts of Towuti, Nuha, Wasuponda and Malili.

In 2007, the East Luwu district had a population of 211,031. The population growth rate of the district averaged 2.82% per year. Most of the people in the district make their living through agriculture, which is East Luwu's primary sector. The area planted to rice in East Luwu totals 19,480 ha, which is equivalent to 2.85% of the area of the district.

The gross regional domestic product (GDP) in 2005 rose by 5.57%, with transportation and communication growing by 42.6%. (See Table 2.)

TABLE 2: GDP GROWTH COMPARISON IN EAST LUWU DISTRICT
(With and Without Nickel Mining)

Year	GDP of East Luwu District	
	With nickel mining	Without nickel mining
2001	5.41	3.94
2002	2.79	6.66
2003	10.11	2.30
2004	8.74	3.98
2005	5.57	8.39

Source: Paper of PT Inco, prepared for CSR seminar in 2007

The Indigenous Groups of East Luwu

In East Luwu district, one of the indigenous groups is *Karonsie Dongi*, which is famous for its fight against PT Inco. Dongi village was once the main producer of rice in the region of Sorowako; but its residents left the village during the rebellion of *Darum Salam*[7] in South Sulawesi. When they believed conditions to be safer, the exiles returned to the village only to find out that that their land had become a mining area of PT Inco. Since then, this group had been exerting efforts to get the land back.

These indigeneous peoples have somehow found it difficult to accept the existence of PT Inco in the area, claiming that before the mining industry was put up, the area had been fertile and had always produced abundant harvests. When PT Inco came, golf courses and houses for PT Inco's employees were built in the area, instead. The people of *Karonsie Dongi* have thus demanded recognition of their land rights and just compensation for their lands.

However by 2010, the *Karonsie Dongi* were no longer united in this claim. There were those who had learned to accept the existence of PT Inco, having either been hired by the company or become its contractors. But there were also some who were still struggling, demanding the return of their land or asking the company to fulfil its promise of providing health and education facilities.

The Other Districts

Thus far, only exploration activities were taking place in Central Sulawesi and Southeast Sulawesi. Thus, community development activities in these provinces were limited. While the CSR program in both provinces covered education, agriculture and health, in general, the program thrust was more strongly directed toward physical development.

The above arrangement triggered protests from among the stakeholders of both provinces, especially the local governments. They demanded having the same production level of nickel as in Sorowako and asked PT Inco to fully utilize the areas covered by the CoW, for their regions to be developed.

FUTURE PLANS OF THE COMMUNITY DEVELOPMENT PROGRAM

A strategic goal of the CommDev program is to increase the community's awareness of the importance of social process in formulating the sustainable community empowerment program. To realize this idea, PT Inco has to continue its efforts to increase the community's understanding of its problems, group dynamic, market access, organization methods,

synergy model with government, incentives or sanction system, measurement of success model, creativity innovation and the replication of successful models in other places. As a continuous and cyclical process, conscientization has to be the ideology-imperative in community empowerment so as to ensure the sustainability of the programs' success.

CSR Challenges

Although PT Inco has a comprehensive CSR program, the company still faces many challenges emanating from its stakeholders, specifically from the community, the government and the NGOs. These challenges focus on one or more elements of the CSR program, e.g., environmental protection, social welfare (including infrastructure, factory development, etc.), community empowerment, employment protection, health and safety. The stakeholders have asked the company to carry out the CSR program with a stronger commitment, rather than merely chasing profits from mining.

Key Stakeholder Issues

Local Community. The community around the mining areas have occasionally launched protests against PT Inco, demanding the fulfilment of its promises of infrastructure development such as clean water facilities, road construction, factory construction, compensation claims, and more. Additionally, employment issues have been a major protest issue. The community has demanded that PT Inco give priority to local citizens or permanent residents in its recruitment activities, and protect them against local labor lay-offs.The Karonsie Dongi has also demanded recognition of the land rights of indigenous peoples and just compensation for their lands.

The Government. The local government is aware of the positive benefits gained by the region from mining operations. It acknowledges that the ideal set-up would be for the investor's contribution to be comparable to the profits it has realized.The basic principle is that the land being utilized is a form of 'loan' from the future generation and therefore needs to be returned in good condition. The local government has thus proposed to involve companies in the development program through the inclusion of a CSR fund in the regional budget. Moreover, the fund is to be used only for community development in the mining site, in line with regional plans like, for example, the construction of a hospital, school, etc. The government will only provide guidance to ensure the successful implementation of the process. However, in 2009, the government has likewise realized that PT Inco has not fulfilled all its promises to the community of East Luwu.

In addition, some local governments in the areas covered by the CoW have been demanding the firm commitment of the company to establish mining operations in their regions and to develop the said areas. The community and government have been pushing the company to fully utilize the land covered in the agreement and to fulfill its promise to develop the community.

In the end December 2009, seven district heads from the provinces of South Sulawesi, Central Sulawesi and Southeast Sulawesi met and proposed a declaration in Bali. Their objective was to criticize PT Inco's CoW, noting that although the company hadthe right to mine a very large area, its current area remained small and limited. Therefore, the district heads asked the central government to review the contract with PT Inco, or to lessen the area for the mining operation, so that the local government could generate revenues for the unused land to improve the welfare and the economic level of the communities.[8]

Local Non-Governmental Organizations (NGOs). The NGOs claimed that whatever good PT Inco had done was not comparable with the ecological damage it had caused and the thousands of hectares of land it had explored.

Though the company had already engaged many local members of the community, it had not yet covered all the members of the community by way of employment or working with the company. This set-up worried the NGO which expected the company to give equal opportunities to the members of the community around the mining area. The NGOs believed that the unjust practice could lead to a social disaster.

According to the NGOs, the company should also think of the upstream and downstream impacts of mining. This is especially important in the post-mining stage when the community should not abandon the mining area when it is no longer productive, without them having any advance preparations.

In general, although the NGOs realize that open pit mining activities could bring economic benefits to the community and the economy, there are harmful effects One example is the imbalance in the ecosystem. For example, the *Butini*, a fish native to Sorowako, has grown very rare and may no longer exist; at the very least, its size may have changed.

The NGO expects social security for the surrounding community, adequate health care facilities, the availability of higher education and the involvement of a collective-based community. For example, the company, as a collective-based community, could support the work of a contractor through the *Koperasi* (Cooperative). This arrangement could lead to equal opportunities for every member of the community. In addition, the NGO believes that the company should not leave the responsibility of taking care of the environment to the government or the community. It should likewise be transparent insofar as providing pertinent information on its operations to the public is concerned.

ANALYSIS AND CONCLUSIONS

In the business world, in order to achieve balance between the business actors and the surrounding community, the implementation of a CSR program is necessary. However, not all businesses appreciate the essence and significance of CSR programs for their respective companies. Thus, this program could stir a discourse. Further, the choice of which CSR program to implement is sometimes based on the demands of society.[9]

In Indonesia, the law has made CSR programs among companies mandatory. However, the central government itself does not exercise any decisive action toward those companies that violate the rights of the local community to development, via the non-implementation of CSR programs. Moreover, there are no existing standards with regard to how a CSR program should be implemented in a community. Often, companies implement their CSR programs based merely on their understanding of the program.

CSR could be divided into three types of responsibilities: (1) must-responsibilities, which pertain to the fulfilment of the rule of law and the needs of consumers, the negligence of which would endanger the continuity of the company in the short term; (2) should-responsibilities, which relate to the survival of the company over the long term; the company should meet the community's expectations, including those not listed in the legislation as ignorance of these could result to resistance on the part of the community and the breakdown of investments; (3) can-responsibilities, which refer to activities not expected by society, nor determined by law or the market. Although no penalties are forthcoming should the company not carry them out, they do help create a good reputation for the company.[10]

PT Inco is very much aware of how imperative it is for the company to obtain a social license to operate, and to develop and create a sustainable community. Thus aware, it also sees the need to align its CSR program with its business strategy.

In forming an effective CSR program, PT Inco knows that working in partnership with the community is important to ensure that the CSR program launched is suitable to the area. The community, after all, knows its own problems and needs best.

Partnering with the local government is also important for PT Inco, since the local government deals directly with the local community. The local government could also become the mediator or facilitator should there be any conflict between the company and the community. The CSR program could therefore be conceived in line with the regional program of the local government, which will develop an appropriate communication line between these two parties and avoid future misunderstandings.

A CommDev program set up by PT Inco is a form of expression of the company's social responsibility to the community as it seeks to eliminate inequality and actively involve itself in the development of the surrounding areas. For the CommDev program, the company needs to evaluate the factors that have to be considered as the universal principles for the program. These factors are as follows:

- The community's ideas and experiences, which are very important for the people to be able to achieve their full humanity
- Ecological sustainability, holism, balance, etc.
- Social justice and human rights, including an analysis of oppression (class, gender and race/ethnicity, etc)
- The concepts of change from below, bottom-up development, valuing local knowledge and skills, etc
- The centralization of community participation
- Process integrity, increasing awareness, empowerment, conscientization, etc.[11]

A broker institution could be developed to establish relationships between the company and the local community. A communication forum could facilitate interaction with stakeholders on any important matter related to the CommDev program. This interaction can help improve the stakeholders' understanding of how important their participation is to the success of the program.

Moving toward the ultimate goal to foster community independence, PT Inco is also aware of the need for the continuous evaluation and investigation of the effectiveness of the programs. It believes that the programs should enhance the people's motivation, ensure the formation of better people's organizations and improve skills. In so doing, the community would develop its resources and ability to improve living conditions.

The evaluation activity should be conducted not only by the company, but also by the beneficiaries, non-beneficiaries, the NGOs and local government. Such activity could involve greater participation by the stakeholders, who would then have been informed of the programs and could thus give feedback or inputs on their effectiveness.

Holistic approach. Taking a holistic approach would help analyze a situation, since it means working on the principle that all things are related to each other. Using the systemic approach would improve understanding of the issues, problems or any process occurring in the community. According to this approach, for its community development program, the company needs to see whether the community has noticed the various issues around it. The ripple effect is inherent to the holistic approach and if the people in the community want to change, they need to know what will follow thereafter.

Balanced development. East Luwu in South Sulawesi is the district where the CommDev program has been fully developed. It has four sub-districts: Wasuponda, Malili, Nuha and Towuti. Development in these sub-districts has focused on six areas - education, agriculture, health, MSME, infrastructure and socio-culture--which touch every aspect of community life. According to Suzuki and McConnell,[12]community development should cover the following aspects of life: social, economic, cultural, political, the environment and personal or spiritual development. Thus, a community development program should address these aspects, since all of them contribute to the community development strategy.

A CommDev program that focuses on only one or a few aspects would result in uneven development. Thus far, development in some districts in Central Sulawesi province and Southeast Sulawesi province remain minimal. Improvement has been noted in education, health and agriculture; however, this has been confined to physical development alone, such as the building of a hospital, a school, etc. Given this situation, the community has registered its dissatisfaction through various forms of protest. The community is aware that the area is rich in natural resources, yet their living conditions remain poor.

The active role of the state. The state or the central government needs to be an active facilitator or jury of the dynamics between the corporations and the community in the mining area. In order to attract investors to the mining industry, the government needs to guarantee the certainty of investment regulations. Existing and potential investors, for their part, need to understand the risk and the feasibility of the business. The state also needs to protect the rights of the local community in order to prevent the residents from having to bear the economic and environmental losses arising from mining operations.

Regional autonomy. Regional autonomy is another challenge. The local government wields authority over the region, especially over the mining sector. Thus, even if PT Inco already has a CoW with the government of Indonesia, it needs to obtain a variety of permits for its operations, mostly from the local government.The significant authority of the local government over the mining sector has to be exercised by people with the capability to do so.

Future CSR Efforts

According to Zadek,[13] firms respond to CSR pressure through four means, as follows:

- The defensive approach – Companies do whatever they can to avoid pressure that can lead them to spend more.
- The cost-benefit approach – Firms undertake CSR activities if they can identify direct benefits from it that exceed costs.
- The strategic approach – Firms recognize the changing environment and their engaging in CSR as part of a deliberate emergent strategy.
- The innovation and learning approach – An active engagement with CSR provides new opportunities to understand the marketplace and enhance organizational learning, which can create competitive advantage.

From the approaches mentioned, it is evident that to gain competitive advantage and have a sustainable business, a company needs to learn and engage in the CSR program that accommodates the needs of the community.

PT Inco is preparing a mining closure strategy for 2025. The strategy has been developed to ensure sustainability in the community after the termination of the mining operation. The focus will not be so much on infrastructure development as it will be on capacity building and the development of the people.

The challenge for PT Inco as a mining company is to foster the independence of the community, especially following the termination of mining operations. The continued occurrence of protests indicates that the community remains dependent on PT Inco. The company is also still considered an agent of development in the region such that many parties pin their hopes on the existence of the mining operation.

When people who work as farmers or fishermen, or are part of other sectors earn similar incomes as they would working with PT Inco; when the community attains a comfort level possible in such jobs from which the income is sufficient to support their families; and when the renewable sectors are attractive enough for the community vis-à-vis the unrenewable sectors; then the objectives of the community development program of PT Inco to foster independency will have been considered achieved.

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Endnotes

[1] PT stands for *Perseroan Terbatas* (Limited Liability Company), a form of business incorporation in Indonesia.

[2] The composition of nickel in matte is as follows: 78% nickel, 20% sulphur, 1% cobalt and 1% other materials.

[3] Asian Development Bank 2005, p. 3-7; Bank Indonesia 2005; World Bank 2005a, b – Pui-Kwan Tse 2004

[4] It refers to Hexavalent chromium, a chemical compound that contains the element chromium in the +6 oxidation state. Hexavalent chromium is recognized as a human carcinogen if inhaled. Workers in many different occupations are exposed to this. This dangerous chemical element is considered one of the genotoxic carcinogens. Chronic inhalation of hexavalent chromium compounds can increase the risk of lung cancer, as lungs are especially vulnerable, followed by the fine capillaries in kidneys and intestine (wikipedia.org).

[5] MDG stands for Millennium Development Program.

[6] *Koperasi* (Cooperative) refers to an association of persons usually of Limited means, who have voluntarily joined together to achieve a common economic goal and through the formation of a democratically controlled business organization, making equitable contributions to the capital required and accepting a fair share of the risks and benefits of the undertaking.

[7] *Darul Islam* was an Islamic group that sought the establishment of an Islamic state in Indonesia. It initiated the formation of a rebel movement in South Sulawesi in 1951. In 1957, it was estimated that DI controlled more than 90% of the South Sulawesi and Aceh provinces.

[8] Kompas.com “PT Inco hanyatinggalkankemiskinandi Sulawesi,” March 2010 <http://regional.kompas.com/read/2010/03/08/1507350/PT.Inco.Hanya.Tinggalkan.Kemiskinan.di.Sulawesi> (25 February 2010).

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[11] Ife, Jim and Tesoriero, Frank. "Community development: Alternatifpengembanganmasyarakatdi era globalisasi," Yogyakarta: PustakaPelajar, 2008.

[12] Ife and Tesoriero 2008.

[13] Carroll and Bucholtz 2008.

RAPU-RAPU POLYMETALLIC PROJECT: REGAINING THE SOCIAL LICENSE TO OPERATE

In October 2008, the Rapu-Rapu Polymetallic Project (RRPP) resumed operations under Korea Malaysia Philippines Resources Inc. (KMP Resources), a collaboration between Philco Resources Limited (Philco), a joint venture company registered in Malaysia. Philco was owned by LG International and Korea Resources Corporation (Kores) that acquired the 74% stake of Lafayette Mining (LML), and Malaysia Smelting Corporation, Berhad (MSC) which picked up the rest.

Lafayette Mining, which acquired the project and proceeded with exploration in 1999, eventually began mining and processing operations in 2005. At that time, the RRPP, one of the priority projects under the Arroyo Administration, was meant to show that responsible mining was possible. However, after only a few months of operation two incidents of mine-tailing[1] spills occurred in the Rapu-Rapu mine site. In both spills, mine tailings made their way to nearby creeks that drained into the sea thereby killing some small fishes, crustaceans and other marine organisms. The spills created a fish scare that made environmental and religious groups calling for the mine's closure much more determined to be heard, and prompted the government to suspend the mine's operations for an indefinite period, resulting in large financial losses for the mining proponent.

The company faced legacy issues due to another corporation's irresponsible mining operations and strong civil society resistance to mining in its area of operation. Despite these challenges, the company was able to acquire the necessary formal and informal licenses, including local community consent, to be able to operate. After a series of test runs some remedial and structural efforts to comply with government conditions, change in ownership and management, the company was able to resume operations.

The case will focus on the Corporate Social Responsibility (CSR) efforts of RRPP under the new owners and how this allowed the company to regain the formal and the social licenses to operate. Although there still are anti-mining groups protesting the operations of RRPP, the company has been able to continue operations without interruption.

THE PHILIPPINE MINING INDUSTRY

Mining has significant potential in the Philippines due to the substantial mineral reserves found in different areas all over the economy. The mining industry was a major contributor to the Philippine economy in the 1970s, when its share of total exports reached 20%. However, the mining industry's economic contribution declined sharply to 2% in 2001 due to the continued fall in international metal prices, the general lack of investments in the global mineral industry, and the increased anti-mining activism of civil society. Nonetheless, the industry continued to generate substantial employment.

This case study was written by Ryan Vincent Uy with company clearance from Rapu Rapu Minerals Incorporated for use in academic discussion.

Ryan earned his Bachelor of Arts in Humanities with Professional Certificate in Political Economy from the University of Asian and the Pacific. With five years of professional research experience, her research interests include Corporate Social Responsibility, Urban and Rural Development, and Corporate Governance.

In 2003, it had 104,000 workers who received PhP5 billion in wages and benefits.[2] With the potential income from mining, the Philippine government was intent on revitalizing the local mining industry by encouraging foreign investment.

The Philippine's mining industry was revived with the passage of Republic Act (RA) 7942, or the 1995 Philippine Mining Act (PMA), which then Philippine President Fidel V. Ramos signed into law on 6 March 1995. The PMA instituted new systems of exploration, development, utilization and conservation in the mining industry, and sought to liberalize the entry of foreign investors.

The law is now considered one of the most environmentally and socially sensitive legislations in the industry because of its provisions that promote local government empowerment, respect and concern for indigenous cultural communities, the equitable sharing of the benefits of natural wealth, the economic demands of the present generation while providing the necessary foundation for future generations, the worldwide trend toward globalization, and protection for and the wise management of the environment. It also seeks to ensure that benefits from mining will provide "approximately not less than 60% of the total proceeds of the mining operations to the government and the Filipino people, considering that the contractor infused 100% of capital. These proceeds include all direct and indirect taxes and fees and benefits to other Filipinos".

Further, the PMA has been described as the most foreign-friendly mining policy *vis-à-vis* legislation in 70 other countries that have liberalized their laws to attract foreign investors (SAPRIN 2001). Although it retains the 60-40 Filipino-foreign ownership requirement for entities mining under the Mine Processing Sharing Agreements (MPSA), it enables foreign companies to undertake mining activities and to acquire a 100% stake in mineral processing operations.

The Implementing Rules and Regulations (IRR) of the PMA, also known as Department of Environment and Natural Resources (DENR) Administrative Order No. 96-40 (DAO 96-40), strictly adheres to the principles of sustainable development, which are pro-people and pro-environment. They are guided by current best practices in environment management systems (EMS). The IRR also ensures that the needs of the present should be met without compromising the ability of the future generation to meet theirs.

The main government agency responsible for approving and monitoring mining operations is the DENR which is constitutionally mandated to promote environmental protection while encouraging the sustainable commercial utilization of natural resources. The agencies under the DENR primarily concerned with these functions are the Mines and Geosciences Bureau (MGB),[3] the Environmental Management Bureau (EMB),[4] and the Pollution Adjudication Board (PAB).[5]

Aspects of CSR are tackled in PMA which safeguard the interests of the host community, the government and the environment.[6] The law integrates the principle of social acceptability and it requires mining firms to secure prior informed consent from the communities directly affected by mining operations even before government could approve mineral agreements and issue environmental permits. It encourages mining companies to use best practices for sustainable development. It requires them to submit an environmental impact statement (EIS),[7] an environmental compliance certificate (ECC),[8] an environmental protection and enhancement program (EPEP),[9] and an environmental work program (EWP). It mandates the formation of multipartite monitoring team (MMT)[10] to check the compliance of mining firms with their plans to manage environmental risks.

The PMA also requires mining firms to have a social development management program (SDMP)[11] to be funded from 1.5% of operating expenses. The law ensures that mining

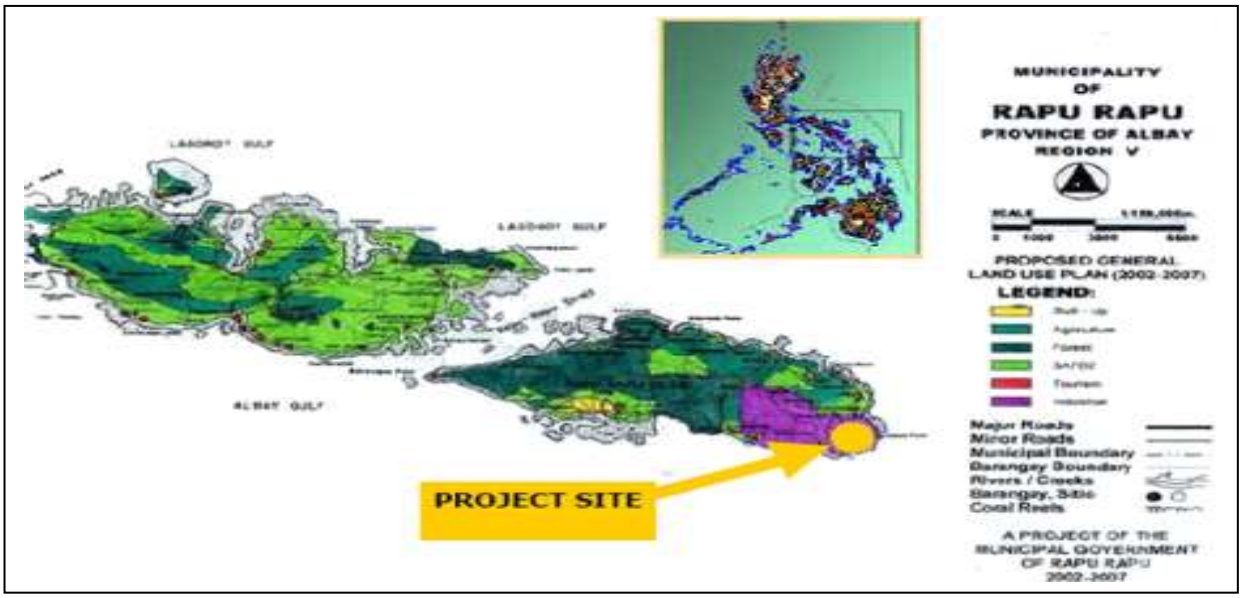
projects prioritize the hiring of members of the communities to fill their human resource requirements. It even goes as far as saying that if the community does not possess the necessary expertise, the project should undertake a training and recruitment program at its expense.[12] The law also limits the hiring of foreigners to technical and specialized positions which require highly-specialized training or experience, provided that "each employment exceed five years or the payback period of the project as stated in the approved original feasibility study, whichever is longer[...]Provided, that each foreigner employed in a position lower than the managerial level shall be hired on a consultancy basis."[13]

In terms of environmental protection, the law seeks three things. First, it seeks to ensure that suitable environmental conditions are maintained at every stage of mining operations. The law defines suitable conditions in terms of prevention of water, air and noise pollution. Second, the law aims to safeguard the usefulness of mined lands after the mining operations. It requires that the land be restored to its original state in terms of usefulness or that the land be prepared for a predetermined purpose agreed upon with the community and the local government unit. Third, the law demands that the traditions and strategies of the Indigenous Cultural Communities toward protecting the environment be respected. Aside from the usual imposition of penalties to compel compliance, various mechanisms are also in place to support it.

BACKGROUND OF THE MINING PROJECT

The RRPP was the first polymetallic and first zinc-producing mine established in the Philippines under the PMA. The mine site is located in the island of Rapu-Rapu, one of three islands of the Municipality of Rapu-Rapu, which is barangay/municipality of the province of Albay, located some 350km southeast of Manila. It is closer to Prieto Diaz in Sorsogon province by 12.5ilometers Legazpi City, Albay's provincial capital, is 45kilometers away.

The island of Rapu-Rapu, with a land area of 5,587 hectares (ha), has a diverse ecosystem with its abundant flora and fauna, rich marine biodiversity, and considerable mineral resources. Its terrain consists mostly of rolling steep slopes (approximately 81% of the total land area) and narrow coastal plaints. Facing the Pacific Ocean on the East, it forms part of the gateway to the Albay Gulf. The project site, which occupies a total of 180ha, is located at the eastern most tip of the island and comprises 3.22% of the island. See Figure below.



Project Site in Rapu-Rapu Island, Albay

The RRPP is jointly owned and managed by Rapu-Rapu Minerals, Inc. (RRMI) and Rapu-Rapu Processing, Inc. (RRPI). RRMI is responsible for extracting the ore from the ground, while RRPI processes the ores into copper and zinc, with gold and silver by-products. With an investment of over US$100 million, it is also the largest private venture in the province of Albay. It employs almost a thousand employees, mostly locals.

The project was granted an ECC on 12 July 2001 by the DENR through the EMB. It uses the open-cut method and has a production capacity of one million metric tons of ore per annum. Approximately 36,000 tons of copper and 26,000 tons of zinc concentrates, as well as 50,000 ounces of gold and 580,000 ounces of silver as by-products can be produced annually. The Ungay-Malobago pit has a mine life of approximately six years.

VISION
We are a Company committed to responsible mining for sustainable development, respecting the interests of all stakeholders in our conduct, and partnering with other sectors to realize socio-economic progress.

MISSION
To mine and process ore materials in the safest and most efficient manner, consistent with local and global environmental standards.

To promote the well-being and development of our employees and impact communities.

In December 1999, RRMI acquired 100% interest in the Ungay-Malobago mine. The project moved from grass roots exploration to project development through a combination of resource drilling, metallurgical test works, engineering and environmental studies, and vital community development and awareness programs.

In October 2000, a comprehensive Environmental Impact Assessment (EIA) was finalized. The project significantly advanced both technically and financially, culminating in the completion of the Bankable Feasibility Study in January 2001.

In April 2002, the EPEP was approved by the reviewing body chaired by the MGB. In 2005, mining and processing operations began and by the latter part of 2005, two-mine tail spills led to the suspension of operations of the company.

In April 2008, Philco acquired all LML shares and revitalized production through the infusion of capital and changes in management. RRMI continues to be a majority Filipino-owned company, while RRPI is wholly owned by KMP Resources.

Background of the Community

In 2007, Rapu-Rapu municipality, which is the fourth smallest in the province of Albay, had a population of 32,646. As the only island municipality in Albay Province the main sources of livelihood are small-scale agricultural production (rice, vegetable, root crop, abaca, and livestock), fishery and marine resources. By 29 July 2008 the Department of Finance reclassified it as a third-class municipality, by virtue of its then current income.[14]

Barangay Poblacion is the town center where Rapu-Rapu Community College, Rapu-Rapu National High School, the municipal hospital and the municipal hall are located. Due to the rough topography of the island, most of the people reside in isolated, narrow coastal plains. Within the island, there are communities that are accessible only by boats or on foot because there is no road system connecting the different barangays.

As determined by the EIS of the mining project, the following barangays were classified as direct and indirect impact areas. This is based on the classification stated in the PMA, only six out of over 34 barangays in the island could be considered as impact areas.

Direct Impact Areas: Three barangays (or villages) — Pagcolbon, Binosawan, and Malobago—are within the one-kilometer radius of the mine site. Of the three direct-impact barangays, it is in Binosawan where the seen as the tailings and waste rock dump of the Rapu-Rapu mine overlooks the barangay.[15] In 2000, the three villages had a total population of 1,007 persons dispersed across 2,026ha. Fishing is the main source of livelihood in these direct impact areas which has to contend with poverty, and low access to health services and tertiary education.

Indirect Impact Areas: Sta. Barbara, Linao, and Tinopan are the indirect-impact barangays affected by the project. Sta. Barbara on the southern side of the island is adjacent to Malobago. It is the former site of Hixbar Mining. According to the environmental lobby group Greenpeace,[16] the area has "waste lands and contaminated rivers and creeks." Greenpeace further claims that health risks have "induced out-migration." Linao and Tinopan, which are situated in the northern side of the island, are only accessible by boat. Linao is adjacent to Binosawan, whose coastal area consists of white sand beaches. Residents of Linao depend on coconut farming and fishing for their livelihood. Apart from farming and fishing, residents of Tinopan are engaged in construction and trading. The villages of Malobago, Sta. Barbara, Tinopan and Linao contain lands with massive sulphides, which are highly vulnerable to Acid Mine Drainage (AMD).

Mine Tail Spilling

Initially, the residents of Rapu-Rapu island and other possibly affected areas such as Sorsogon and Albay were hesitant about the mining project due to the legacy issued left by the previous mining companies. Concerned groups were afraid that mining activities would damage the fragile ecosystem of the island. After less than a year of mining operations, the fears of the residents of Albay and Sorsogon were realized.

The first spill occurred on 11 October 2005 due to the breakdown of the main pump that transported cyanide-contaminated wastewater from a detoxification plant to a mine-tailings storage dam. Pump failure caused the mine wastewater to back-flow into an "events pond" which was designed to contain mine-tailings spills during emergencies. Because the events pond was already 40% full, 20 tons of cyanide-contaminated slurries spilled into the premises of the gold processing plant and made its way to two nearby creeks that drained into Albay Gulf. However, these slurries were trapped in gabions and silt fences. In the afternoon of the same day, the villagers collected two kilos of dead fishes, crustaceans and other marine life on the mouth of the said creeks.

On 31 October 2005, heavy rainfall caused the lower-tailings storage facility[17] to reach critical levels. Fearing that the mine-tailings dam would give way, the company's management decided to divert wastewater to Ungay Creek and Hollowstone Gully. The villagers collected two sacks of dead fish, crustaceans and other marine life along the creeks following morning.

Although the resistance of the Church, the academe, and other environmentalists had already been apparent even before the operation of the RRPP, it intensified after the two incidents which concretely confirmed the fears of the anti-mining groups regarding the environmental impacts of mining on the island. Both mine incidents and the fish scare they resulted to, united the advocates of the closure of mining operations.

Following the two cyanide spills, the PAB ruled that RRPI had violated the Clean Water Act. Mining operations were first suspended after the 11 October incident, then again in November 2005. Finally, in January 2006, DENR did not only suspend operations of RRPI but also imposed a fine of PhP10.4 million on it.

The work stoppage translated to monthly losses of PhP150 million for the company, on top of the rehabilitation cost that increased to US$5 million from US$2.8 million. In May 2006, a Presidential Fact-Finding Commission declared that the project had indeed violated the provisions in the ECC and recommended the mine's closure. The sanction was the implementation of the "polluter pay principle" set by the government.

Aside from the imposition of sanctions, operations temporarily ceased until the 39 pre-conditions for operations set by the DENR were met. These conditions included the approval of the application for ISO14001 certification, and the installation and improvements of safety mechanisms.

In June 2006, the government allowed a three-stage test run that proceeded for around 150 days. The DENR eventually pronounced that the company was in a better position to operate after measures to prevent the occurrence of spills were in place.

In April 2008, the original owners, Australian-based Lafayette Mining Ltd., sold its shares to the current owners of the project.

ENVIRONMENTAL COMMITMENT

With the experience of the previous owners, the new management was committed to ensuring that such incidents would not happen again and that the negative impacts of mining operations would be minimized.

There are three major environmental impacts brought about by the project. For the mining operations, the major impacts were the possibility of AMD and siltation. While base metal processing mainly exposed the environment to water pollution from mine tailings, and to the chemicals used and produced in processing. The EMS is the way by which RRPP implements its environmental policy.

In compliance with PMA, the Projects have integrated the Environmental Protection and Enhancement Office (EPEO) into the functions of the Environmental Management Department. The rational of their EMS revolved around ensuring that the environmental impacts brought about by mining and processing activities were well within the standards set by law; and that at the end of the project, the area of the mining operations would be left in such a way that communities would still have productive use for it. The Project's EMS capability can be summarized into four components:

- Managing the major environmental impacts (AMD, water pollution, and siltation), managing exposure to hazardous chemicals and solid waste, and controlling air pollution

- Recycling of waste: (water, Potential Acid Forming and Non-Acid Forming (NAF)

- Undertaking reforestation as a way of restoring the land as close as possible to its original state and rehabilitating it for future use, and

- Environmental monitoring to ensure compliance to standards and to anticipate potential problems before they reach critical levels: air and noise level, sedimentation, and bio-diversity monitoring.

The project also engages the community in environmental protection through the celebration of World Environment Day, World Water Day and Earth Day.

Other projects implemented by RRPP include the progressive planting of cover crops to provide various biological and ecological benefits, and of trees to provide cover and slope stability. Major access roads are sheeted with base course and gravel. Drainage systems are lined with concrete and provided with mini sumps to settle sediments.

Through its Solid Waste Management Program RRPP manages and controls the volume of wastes generated in the operation of the project in compliance with RA 9003, or the Ecological Solid Waste Management Act of 2000. The program is anchored on the solid waste management practices of reducing, reusing and recycling, with the main objective of maximizing the recovery of recyclable materials and reducing wastes disposed in the pits. Cyanide packaging wastes are disposed in a dedicated pit within the Tailings Storage Facility area. Recyclable and reusable materials are donated to the community. Compost materials from biodegradable organic wastes are used in the plant nursery and reforestation areas.

ECC conditions of RRMI require planting vegetation on open land, a 40-meter wide buffer zone, and the establishment of a mini-forest area. The buffer zone measures 24.76 ha and is around the perimeter of the property, while the 12.9ha mini-forest is located in the densely forested area. The eastern portion of the buffer zone faces the Pacific and this is where vegetation is sparse. Only grass grows in the area alongside a few surviving pine trees planted by the old exploration company. Since 2005, this area has been the focus of intensive reforestation.

In order to ensure biodiversity in the area and as part of the RRPP's efforts on sustainable development and environment protection, the RRPP also implements projects on marine and wildlife conservation. The Marine Conservation Program, with the support of the local communities, has helped in the rescue of marine turtles, a dolphin, and a juvenile whale shark (butanding). The company has also continued its efforts to rid the coral reefs of crown-of-thorns starfish infestation. Since the project started, the company has communicated its policy on wildlife conservation. The catching and killing of wildlife such as reticulated pythons, monitor lizards (bayawak), and wild birds, and the taking out of the island's wild plants are strictly prohibited. Trapped wildlife is freed in the dense vegetation areas.

The two incidents in 2005 taught the project's management team that when it comes to environmental protection, merely complying with the law is not enough. In its current form the EMS looks more to the worst-case scenario of the environmental impacts rather than just at mere regulatory compliance. Examples include PH level self-monitoring done by RRPP to ensure that acid levels are at acceptable standards to prevent AMD.

Today, the project is undertaking continuous operations. It takes pride in its achievements and in the external recognition it has received for environmental protection since 2007. Both companies under the RRPP have been ISO 14001 certified. RRPI is now on its third year of effective certification. In its Reassessment Audit in May 2010, it passed with zero non-conformity. In 2009 the project received positive recognition for its efforts when two of its personnel were awarded Outstanding Pollution Control Officer and Most Outstanding Mining Engineer for Mine Management.[18]

COMMITMENT TO THE COMMUNITY

Aside from minimizing its environmental footprint, the company is also committed to helping the community. The law requires that the company implement SDMP. Legally, SDMP only covers the indirect and direct impact areas, the company also has instituted Community Development Assistance Programs (CDAP) that cover the other mining stakeholders beyond what the law mandates. Unlike the SDMP, CDAP is not mandated by law and the distribution is based on the need of the community.

Community Programs

At the heart of RRPP's community development program is its compliance with the law that mandated the creation of the SMDP. However, just as the project went beyond mere regulatory compliance where EMS is concerned, so has it done with its community outreach and development programs that extend beyond its identified direct and indirect impact areas.

Employment Generation

More than half or 53% of the total number of project employees are residents of the direct and indirect impact communities in the Island of Rapu-Rapu. Another 15% reside outside these areas but within the municipality of Rapu-Rapu, making Rapu-Rapunhons the majority, (68% of all employees).

Of the 1,274 people engaged in the project, only 34% are direct employees of RRMI and RRPI; the rest are employed by the project's service contractors. (See Table below.)

TOTAL PROJECT EMPLOYEES INCLUDING CONTRACTORS (As of 30June 2010)

	Total	**%**
RRMI & RRPI	438	34
Service Contractors	836	66
TOTAL	**1,274**	**100%**

Source: HRAS Department

Moreover, approximately 18% live in Legazpi City/Albay Province, while another 4% reside outside the province of Albay but within the Bicol Region or Region V. With just 10% of the total originating from other regions in the economy outside Bicol Region, this makes Bicolanos—with their distinct traditions, cuisine, and dialect—the predominant regional group making up 90% of all people employed in the project.

Due to the employment opportunities provided by the mining project, the population in the impact areas has grown. As of the 2007 economy-wide census, Pagcolbon's population grew more than threefold to 699 residents. Likewise, population increases were observed in Malobago and Binosawan.

Infrastructure, Education and Socio-Cultural Activities

For RRPP, the purpose of the SDMP is to ensure that the people would have a similar, if not better, lifestyle even after the mine closes. RRPP believes that without the most basic infrastructure and services such as roads power, and potable water, local development would be difficult. Early on in the implementation of SDMP, the program proved to be of

primary importance. By providing these facilities, the project has already contributed to the improvement of the quality of life of the residents.

- **Electrification:** On its third year of implementation, the Barangay Electrification Project provided free electricity through the distribution of generator sets and diesel fuel to the three direct impact areas. It also undertook the repair and maintenance of the facilities and power lines, and the honoraria of the genset operators. This assistance is planned to be realigned to the livelihood projects of the three direct impact areas.

- **All-Weather Barangay Access Road:** An all-weather road, constructed and maintained by the project, now links and allows travel to the different barangays when it is not safe to reach the coastal barangays using boats.

- **Construction/Renovation of Chapels, Barangay Multi-Purpose Hall, and Classrooms:** A new chapel was constructed in Pagcolbon while the chapels of Binosawan and Malobago were renovated. A barangay multi-purpose hall and a day care center were newly built in Pagcolbon.

The company also recognizes the need to develop human resources as a key to sustainability and the ministration of the community. It has thus allotted a big portion of the SDMP for education and training. Examples of such activities are:

- **Donation of School Supplies**. Provision of free school bags and supplies to elementary children in the island of Rapu-Rapu

- **Vocational/Technical Skills Training:** In cooperation with Technical and Educational Skills Development Authority (TESDA) and other vocational training institutions, this project was started early on during the implementation of CDAP and SDMP. The training sought to equip interested local residents with skills for employment within the project and other employment opportunities in the nearby cities and communities.

- **Support for Early Childhood Education/Day Care Program:** The company provides financial assistance for the teachers' honoraria, for the purchase of school materials and for related activities like graduations.

- **Educational Assistance/Scholarship Program:** Up from 12 scholars in the past three years, RRPI increased its program beneficiaries this year to 81 poor but deserving students from direct and indirect impact areas enrolled in the municipal high school.

- **Teachers' Training:** In the summer of 2006, the company sent 12 teachers to Ateneo de Manila to enhance their teaching skills, particularly in Mathematics and Science. The trained teachers echoed what they learned to other teachers in the island.

The company also supports the preservation of local customs and traditions. Through sponsorships of local festivals/celebrations that help highlight and preserve the age-old customs and traditions of the locality. Likewise, the company believes that it is important to develop the skills of local leaders through projects such as seminar-workshops and exposure trips designed to help build a community of leaders within the impact areas.

The Community Development Assistance Programs: Beyond Mandated CSR

RRPP's CSR does not stop at the borders of its direct and indirect impact communities as determined by its EIS. RRPP recognizes that there are other stakeholders that could be affected by its operations.

Fully cognizant of its role as a key player in the developmental efforts of its surrounding communities as well, the RRPP, through the CDAP and usually in partnership with the local government, government agencies and concerned groups, undertakes and supports activities and projects that benefit (i) the other barangays in the municipality of Rapu-Rapu outside the SDMP, and (ii) the coastal barangays of Legazpi City and Sorsogon Province located around the Albay Gulf, and facing the mining project in the Island of Rapu-Rapu. Beyond compliance and on a voluntary basis, RRPP provides funds, logistic support, and manpower skills to implement the programs guided by the United Nations Millennium Development Goals and the needs of the residents. Since 2006, some of the programs that have been implemented are the following: Feeding Program, Education and Clean & Green.

The company believes that CDAP is important in rebuilding the trust between the government, the community and the company. After the mine-tailings spill, the company needed to show that it was serious in its commitment to the environment and the community. To prove that CDAP has been effective in restoring the trust of the people, the Rapu-Rapu Municipal Council passed Resolution 255-2009 commending RRMI/RRPI "for having an empowered community-based consultative-transparent implementation of the CDAP Scholarship Program in the Municipality of Rapu-Rapu".[19]

Community Organizing

RRPP believes that local development will be led by the people, and not by local politicians. Thus, it has initiated the formulation of a people's organization (PO) in the area, aside from livelihood projects. In order to form the PO the company spoke with respected community leaders. Members of the community were also given seminars regarding cooperative development. Ten community meetings were then organized prior to the residents' signing up for membership. The purpose of these meetings was to ensure that the members of the community had enough information to decide on their own. One hundred members initially signed up to join the organization. Through seminars the members learned to raise the initial amount required by law for them to become a cooperative.[20] Unfortunately, the concept of forming POs was not acceptable to all barangays because it means the displacement of some power from the barangay.

Implementing SDMP and the CDAP

The company assists in the planning and implementation of the SDMP. The community prepares project proposals and plans out of the SDMP budget allocated to them. One-year and five- year plans are approved by the MGB, and the usage of the funds allocated to the SDMP is audited annually. SDMP is highly regulated unlike the CDAP. However, the company still needs the buy-in of other stakeholders as well as their assistance in implementing the CDAP program because it takes into consideration other stakeholders beyond the six barangays mandated by law.

In order to improve the absorptive capacity of the local community, RRPP gives capacity building programs and technical support. In implementing CDAP, the company exercises more control; however, given the size of the area covered, the company needs to work with other organizations to implement the programs.

Other Concerned Groups

Aside from the six barangays, other stakeholders have expressed their hesitation towards mining in the island.

Church

As early as the project's exploration stage in 1999, two influential Catholic Bishops made known their anti-mining stance. Bishop Arturo Bastes of Sorsogon and Bishop Lucilo Quiambao of Legazpi City noted that the island's monsoon weather and mountainous terrain made it difficult to prevent the occurrence of mining disasters.

In Pastoral Letter No. 8, Series of 1999, Bishop Quiambao said, *"the beauty and peacefulness and natural life of Rapu-Rapu is [sic] being threatened by the … mining applications and proposals made by Lafayette Mining Corporation." He also raised issues regarding the operation of the company— (1) "closed-door" meetings of the company with local government agencies, (2) the lack of approval by the Rapu-Rapu Sanggunian Bayan (municipal legislature) of the zoning ordinance and development area, (3) trauma of the people from the after-effects left behind by the Hixbar mining company, which left vast amounts of mine waste that could be dumped to the open sea if the tailings dam could not contain these toxic materials*[21.]

Bishop Bastes headed the Bastes Commission formed by the Philippine government to investigate the mine-tailings spill that had occurred. The Bastes Commission had recommended the closure of the mine.

Non-Government Organizations

Even before the mine tailings spills, various local and international non-government (NGOs) organizations were already against mining in the region. The spill added fuel to the fire.

From 1999 to the early months of 2005, various NGOs in the Bicol region independently expressed their sentiments against Lafayette's mining project. The October 11 spill facilitated the formation of the Bicol Alliance against Mining (BAAM), a coalition of NGOs, POs, religious and academic organizations opposed to mining. BAAM became the umbrella organization pushing for the suspension and closure of Lafayette's operations.

Before the spill, the anti-mining efforts of civil society organizations had been fragmented. The spill, Bolaños said, "solidified the claim of various organizations that mining in Rapu-Rapu island had devastating impacts on the environment". Their claim was supported by the research findings of Dr Emelina G. Regis, director of the Institute for Environment Conservation and Research of Ateneo de Naga University. Regis's study cited three reasons why mining in Rapu-Rapu should not be permitted—1) pollution by AMD, 2) contamination of the area with heavy metals, and 3) Rapu-Rapu's being a fragile island ecosystem.[22]

Environmental lobby groups such as Greenpeace joined the campaign for the closure of the mine. It prepared a report, entitled "Fool's Gold: The False Economic Promises of the Lafayette Mining Project in Rapu-Rapu." It presented the following key points:

- From 2000 to 2005, Lafayette employed a total of 948 workers, but only 32% or 305 employees were from the direct impact barangays. Most were "contractual" employees renewable every six months (without benefits) and were paid PhP5, 400 per month.

- The possibility of a local economic spill over to occur was small because the mine site is self-contained. The supplies of the company are shipped into, and not sourced from, the island.

- The municipalities and barangays are expected to earn PhP380 million for the seven-year project duration. However, mining activities have not increased the revenue generating capacity of the LGU in Rapu-Rapu municipality.

- Lafayette provided four direct assistance programs (a piggery project, a beauty parlor project, a soap-making project and a hammock-making project) valued at PhP119,000 to 103 residents of the direct impact areas. However, Greenpeace doubted the sufficiency and sustainability of the programs as well as their capability to pump prime the local economy.

CHALLENGES FACED BY THE COMPANY

In the aftermath of the mine-tailings spill, the previous owners, Lafayette Inc., failed to communicate the implications of the spills to the people because they were waiting for an announcement from corporate headquarters. As a result, by the time they came out with a statement, the Church and NGOs had already set the tone for the stance the people should take, and the people called for the closure of the mines.

Another challenge faced by the company was the mistaken perception of the people that the company was the government. Majority of the infrastructure requests that the company received were for barangay halls. The company believed that it was important that it did not interfere with the barangay's development plan. The role of the company was merely to assist.

According to the Community Action, Relations, and Education (CARE) Department's Manager Marilanie Lanuzo, communication is the key. When she started in her post in 2008, it was hard to get the trust of the people. Over time, through communication and education they were able to talk to the people.

Through its various efforts, the company has succeeded in getting the support of the community and now works hand in hand with it to ensure local development. In the end, the barangays are the ones defending the company from mining activists.

CONCLUSION

Although RRPP has experienced initial difficulties in its operations, it has been able to operate continuously over the past years because of its commitment to the environment and the community. Perception of the community creates distrust and results to a lack of cooperation from the community. Proper communication and good performance as shown by RRPP's different programs and projects can help change the mindset of the people. Despite the other sectors' opposition to mining, the biggest voice remains the community which is directly affected by the company's operations.

Furthermore, RRPP has realized that it needs to take into consideration not just the stakeholders that are identified by law, but also the many others beyond the scope of the law who are similarly impacted by RRPP's operations, among them the Church and local NGOs. At the end of the day what is important is the sincerity and commitment of the company despite mistakes that have occurred. In the case of RRPP, the CDAP helped show the community that the company is not just complying with government requirements, but that the company is really ensuring that it is able to help develop the local community.

Endnotes

[1] Mine tailings are waste products from the mining industry that are finely ground material left over in containment areas or discharged to receiving waters after valuable metals are extracted.
[2] Reyes, Angelo. (2006). "Mining: Flagship Industry on the Philippines." Speech delivered by Secretary Angelo T. Reyes of the Department of Environment and Natural Resources during the Prospectors and Developers Association of Canada (PDAC) 2006 International Convention, Trade Show & Investors Exchange at the Mining Investment Show on March 7, 2006, Toronto, Canada. Accessed at <http://www.mgb.gov.ph/presentations/2006-0317pdac.htm>
[3] MGB, which is under the DENR, is directly in charge of the administration and disposition of the economy's mineral lands and resources.
[4] EMB, which is under the DENR and is headed by the Director and the Assistant Director, advises the DENR Secretary on matters relating to environmental management, conservation, and pollution control. It also recommends legislation, formulates environmental quality standards, and recommends rules and regulations for environmental impact assessments. EMB also provides technical assistance for implementation and monitoring.
[5] The PAB, a quasi-judicial body under the DENR-EMB, oversees the adjudication of pollution cases.
[6] A provision of the Mining Act.
[7] The EIS is a document which aims to identify, predict, interpret, and communicate information regarding changes in environmental quality associated with a proposed project. It examines the range of alternatives available to realize proposal's objectives and their impact on the environment.
[8] The (ECC) is a document issued by the government agency concerned certifying that the project under consideration will not bring about unacceptable environmental impacts and that the proponent has complied with the requirements of the environmental impact statement system.
[9] The EPEP shall provide a description of the expected and considered acceptable impacts, and shall set out the life of the mine environmental protection and enhancement strategies based on best practice in environment management in mining. The program shall include implementation schedules, system of environmental compliance guarantees, monitoring, reporting, and cost provisions.
[10] MMT is a multi-sectoral team convened for the primary purpose of monitoring compliance by the proponent with the ECC, the EMP, and applicable laws, rules and regulations.
[11] The SDMP is the comprehensive five-year plan of a Contractor/Permit Holder/Lessee authorized to conduct mining and milling operations toward the sustained improvement in the living standards of the host and neighboring communities it sought to create responsible, self-reliant and resource- based communities capable of developing and implementing activities in a manner consistent with the principle of people empowerment. It is a tool for the development and implementation of community programs/activities in consultation and in partnership with the host and neighboring communities.
[12] Philippine Mining Act
[13] ibid
[14] Official Website of the Rapu-Rapu Polymetallic Project <http://www.rapu-rapumining.com>
[15] Risk Asia Consulting Inc. (June 2006) "Fool's Gold: The false economic promises of the Lafayette mining project in Rapu-Rapu (A Report Prepared for Greenpeace Southeast Asia).
[16] Greenpeace is a non-profit organization, with a presence in 40 countries across Europe, the Americas, Asia and the Pacific. As a global organization, Greenpeace focuses on the most crucial worldwide threats to our planet's biodiversity and environment.
[17] The lower-tailings storage facility is the dam mine tailings are stored and are further detoxified. In the facility, mine tailings are exposed to sunlight for four to five days, which reduces the cyanide levels in compliance to the DENR standard.
[18] Unpublished interview with Environment Management Department Staff for the RVR Center for Corporate Social Responsibility, 2009
[19] Unpublished interviews with Ms Cecille Calleja, Vice-President for Public Relations & Corporate Affairs for the RVR Center for Corporate Socia Responsibility, 2009
[20] Unpublished interviews for the RVR Center for Corporate Socia Responsibility, 2009
[21] Quiambao, Bishop Lucilo B. (1999) "Pastoral Letter No. 8, Series of 1999." 1 November 1999.
[22] Regis, Emelina G. PhD. (2000) "Position Paper Against Mining in Rapu-Rapu." 1 June 2000. Accessed at <www.adnu.edu.ph/Institutes/Inecar/pospaper1.asp>

CORPORATE SOCIAL RESPONSIBILITY IN THE PERUVIAN MINING SECTOR
THE CASE OF ANTAMINA MINING COMPANY

ANTAMINA MINING COMPANY

Antamina Mining Company (AMC) could be found in the district of San Marcos, in the Ancash Department. Located in the northwestern part of the economy, it lay 408 km north of Lima. (See Exhibit 1 and 2.) On one side of AMC was the Pacific Ocean, while its highlands were surrounded by the Andes. The elevation of the open pit mine was 4,300m above sea level. The Antamina open pit mine processed copper, zinc, silver, lead, molybdenum and bismuth mineralization.

The population in Ancash was dispersed across 20 provinces and 166 districts.[1] More than 80% of the land in the region was not agricultural and the population density in this Peruvian department was 30.6 habitants per square kilometer. (See Table 1.) The population living in the rural areas represented 38% of the total population of 1.063 million habitants.[2]

In the 1950s, the technical and economic feasibility conducted by Cerro de Pasco Corporation, a private company, yielded positive results. However, under the Revolutionary Government of the Armed Forces (1968–1980), the Peruvian government expropriated the concession and transferred it to a public sector mining company, Minero Peru.

When the mine was privatized in 1996, the concession was initially awarded to a Canadian consortium, Rio Algom Limited-Inmet Mining Corporation (INMET), which offered US$20 million and a US$2,520-million investment commitment. The contract it forged with the Peruvian government required that the consortium complete the studies on mining deposits and decide on the development of the project before 1998.

Subsequently, Noranda Incorporated and Teck Corporation, both Canadian companies, acquired Inmet's 50% ownership due to the fact that this company could not make the required investment. In September 1998, the consortium decided to execute the project. Over the next year, the consortium brought in the Japanese firm Mitsubishi Corporation as a new partner and obtained additional financing for the construction phase. At that time, the financing agreement for the project set a new standard in terms of environmental protection in Peru, as it required full compliance with Peruvian legal requirements and World Bank guidelines related to environmental and social performance.

Despite the myriad changes, the exploration of the mine continued over a two-year period, while the construction and building of the routes took another three years. Antamina mine operations began in late 2001, with an estimated mine life of more than 20 years and an estimated production of 1.5 million tons of copper and zinc concentrates per year. This implied an increase of 1.2% in the Peruvian GDP and 30% in total mining production. The project also boosted Ancash's GDP and set the department in the sixth position in the economy rankings.

This case study was written by Paula Carrion with company clearance from Antamina for use in academic discussion.

Paula is a gradúate of Economics from Pontificia Universidad Catolica del Peru. She obtained her Masters Degree in Globalization and Economic Development Management from the University of Antwerp. She has an extensive research background since 2002 and is currently connected with the Peru Export and Tourism Promotion Board.

TABLE 1: DISTRIBUTION OF LAND (ANCASH REGION)

Ancash Region – TOTAL	1,423,130	100%
Agricultural land	188,244	13.2%
Non-agricultural land	1,234,886	86.8%

Source: Fuente III CENAGRO

As of 2010, the mine was operated by a joint venture company, AMC. The joint venture partners were Noranda Inc (33.75%) and TeckCominco Ltd. (22.5%), Australian-UK-based BHP Billiton (33.75%), and the Japanese firm, Mitsubishi Corp. (10%). The subsequent merger between Noranda and its subsidiary, Falconbridge, and the acquisition of Falconbridge by Xstrata in 2006 transferred Noranda's holdings to Xstrata's portfolio. In 2006, Billiton bought the company Rio Algom, which then became BHP Billiton.

Constructing the Mine

The construction of the mine required the removal of the tops of several mountains and the draining of a lagoon in order to reach the mineral deposits. Since there were several small towns and isolated communities located along the higher places, the company initiated a relocation program that necessitated the purchase of lands in an area with no viable local land market. In addition, relocation indicated the need for a compensation program to provide new lands to relocated families, as well as basic services. However, two unanticipated problems emerged. First, the lack of available lands in the area and the relocation to more distant areas could alter the commerce between families from the valley and the higher areas. Second, some former landholders preferred to move to the urban centers in the valley and requested housing there at. In the end, relocation did not take place and the company agreed to pay US$33,000 to each of the 52 resident families. This was a big internal negotiation for the company that considered budget constraints, the schedule, and Antamina's commitment to the communities.

The construction included the port in Punta Lobitos where the minerals were currently received, stored, filtered and afterward exported. Punta Lobitos was located in Huarmey, also in the Department of Ancash, approximately 300km north of Lima and 302km from the mine. This location was chosen due to its geographical characteristics as the dock draught allowed the viability of the port.[3]

The concentrates would travel from the mine to its port facility along the coast, using an existing road which crossed the Huascaran National Park (HNP). As UNESCO had recognized HNP as a Biosphere Reserve in 1977 and as a World Natural Heritage Site in 1985, there was pressure to look for alternative routes.

With the negotiations between Antamina and HNP, INRENA[4], TMI[5], UNESCO and international technical conservation individuals, a "by pass" access road around and outside the southern border of the park was decided.[6] As a result, Huarmey also lost a route connecting it to the communities living in the highland. The revised construction included a pipeline around which the mine's access road traversed the park's southern border.

Previous to Antamina, the communities had negative experiences with the mining companies operating in the area. For instance, the mining company of Contonga received complaints from the community of Huaripampa in the district of San Marcos regarding the contamination produced by mine tailings in their lands and in the Pacuscocha lagoon.[7] The communities mentioned that the mining wastes were damaging natural pastures besides

which the mining company had not been fulfilling its commitment to undertake development and socially responsible activities like the construction of roads, and educational and irrigation projects. The construction of the Antamina mine inevitably evoked fears with regard to environmental impact and a certain degree of skepticism on the part of the community.

Shortly after the project started, AMC thus used different mechanisms to promote community participation and public consultancy, in an effort to gain the people's confidence and trust in the company. It organized training workshops to ensure better communication, and to keep the local residents and other stakeholders informed of developments relating to the project. These workshops focused on environmental and socio-economic issues.

AMC also developed a joint monitoring program to check the water quality, public presentations regarding environmental issues, the attendance in meetings with communities and the resolution of environmental complaints. These activities helped the people learn about the environment and also reduced the number of complaints and arguments. The program similarly resolved other issues related to the acquisition of land, the use of resources, and other complaints and demands through frequent negotiations and meetings.

Regulatory Issues/ Dealing with the Authorities

Permissions and licenses covered many areas such as the construction of the mine, the concentrator, the port, the road, the pipeline and campsites. Permits were needed to construct different facilities involving power, water and telecommunication systems. During the construction phase, Antamina obtained 243 licenses[8] and authorizations, while during the operation phase, it acquired 77 additional authorizations.

The company maintained close, friendly and cooperative relations with the local communities around the project in order to reduce problems with the regulating agencies of the government. For one, the authorities' lack of resources to undertake inspections delayed the process. In order to solve this problem, AMC offered logistical support to facilitate the permitting process, even as it also had to contend with such other problems as the difficulty of finding the pertinent officials in their offices during working hours, whose signatures had to be obtained. The lack of transparency in local governments and the rapid rotation of local authorities compounded the process.

The land titling process was encumbered by the lack of clear laws and regulations. In addition, several authorities attempted to abuse their political power and transform the administrative procedures into social conflicts. They could damage the image of the company by using their power or influence to make AMC appear responsible for the insufficiency of public services such as water, electricity and roads.

The local authorities were oftentimes unsure of what parameters to go by in granting certain permits and did not comply with the schedule set by the law for concluding an administrative procedure. For instance, the authorities in the province of Bolognesi were not aware of what requirements should be met for a permit application that would allow the pipeline to cross the land. Hence, AMC itself initiated meetings with the regulatory officials to explain the scope of the project, the required permits and the willingness of the company to obtain such permits in order to legally construct and operate the project in full compliance with Peruvian law.

Some public officers and local authorities also lacked the required technical understanding of the details of the permit. For this reason, the local authorities usually set the permits aside or submitted them to the main office to get a technical opinion. This procedure resulted to extra steps and lengthened the time needed to obtain the permit. To address this issue, AMC

provided additional training on the permitting process through company officials or consultants, so the local officials could make the decisions themselves.

MINING IN PERU

Peru ranked among the primary producers of minerals like gold, silver, copper, tin, zinc and iron worldwide and in Latin America. (See Table 2.) As there was a high export demand for these, mining in Peru was considered one of the fundamental pillars of the economy. But in 2009, the mining sector's contribution to GDP decreased due to the international crisis that led to the fall in the prices of many of Peru's principal minerals.

TABLE 2: POSITION OF PERU IN THE WORLDWIDE RANKING OF MINING PRODUCTION

Ore	World wide	Latin America
Silver	1	1
Zinc	2	1
Lead	4	1
Gold	6	1
Copper	2	2

Source: Annual Mining Report 2009

Since the colonial times, foreign companies had exploited the metals in Peru and produced few redistributive effects on the economy. However, by 1950, the Peruvian government decided to increase its regulations, control and presence in the extractive industries. In 1990, the economy legislation began to promote investments in the mining industry. The Investment Promotion Law in the Mining Sector and the General Mining Law were enacted in 1991 and 1992, respectively. Both created a more favorable legal framework and offered tax incentives for the mining industry. As a result, economy-wide investments turned mining into an important source of fiscal income and foreign currency.[9] Moreover, state-owned mining companies in Peru diminished in number as the Peruvian government promoted privatization.

In 2009, mining exports generated US$16,271 million, which was 10% lower than it was in 2008. Nevertheless, in 2009, the mining investments in Peru increased to US$2,771 million, which was 62% higher than the previous years.[10] In 2009, Peru was the third destination in the world, in terms of mineral exploration investment; it ranked first in Latin America. The estimated portfolio investment in the Peruvian mining industry consisted of 36 principal projects inclusive of exploration and extension activities, with even more projects in the investment pipeline. For instance, AMC and Southern Copper Corporation submitted extension projects in 2011 and 2012, respectively. There were also exploration projects in the different regions of Peru like Cajamarca, Huancavelica, Cusco, Arequipa, Ancash and Ica.

A number of government institutions had an important role in the Peruvian mining sector. The Ministry of Energy and Mines (MEM), for example, regulated, planned and supervised the mining activities, and was responsible for their integral development.[11] It had three important administrative areas:

- The Mining General Direction - this administered and supervised the rational use of mineral resources, and approved the technical and economic feasibility study.

- The Office for Environmental Affairs in Mining - it proposed the policies and rules for the protection and conservation of the environment. It also handled the evaluations to determine the impact of mining activities on the environment.
- The Office of Mining Supervision - it judged and gave opinions regarding the following: (a) the legal stability contracts; (b) the non-fulfillment of mining rights; and (c) the health, security, housing and welfare programs.

Other government institutions involved in the sector were as follows:

- The Mining Council: It was responsible for resolving all the mining issues that could not be resolved in the administrative institutions of first instance.[12]

- The Mining and Metallurgical Geological Institute: It prepared the inventory of mineral resources, granted the titles for the concessions and disseminated geological information.

Peruvian legislation, through Law 27474 on the supervision of mining activities, created the Energy and Mining Investment Supervisory Body. It supervised the implementation of hygienic and security regulations that applied to the mining sector, as well as the protection and conservation of the environment. The supervision process was financed using revenue from the mining tax applied on mining companies.

THE ENVIRONMENTAL IMPACT ASSESSMENT

In 1991, the Peruvian government enacted an important law to promote more investments[13] in the economy. This legislation also stipulated the promotion of investments in the mining sector and established the authority responsible for environmental issues such as environmental impact assessments, adaptation programs and environmental management; and for procedures setting the maximum permissible level of gas emissions released in mining activities. In 1992, the MEM published the "Regulation for Procedures in the Mining Sector,"[14] which indicated that anyone asking for a mining concession had to submit an Environmental Impact Assessment (EIA). The EIA should include an evaluation and description of the different aspects of the area affected by the mining activity. The objectives of the EIA were to determine the preexistent conditions and point out measures for prevention and control, in order to avoid any negative impacts on the environment.

Prior to the initiation of Antamina's commercial activities, the EIA examined the areas affected by the mine operations, forecasted the environmental effects of these mining activities, and focused on monitoring air, soil, superficial water and underground water. It also cared for the animals and cultivations affected by the mine-to-port activities.

In March 1998, Antamina's EIA covering socio-economic, archaeological, and environmental and safety issues was submitted to the government of Peru. It was also made public in the districts of San Marcos and Huarmey in 2001[15] so that the people living in these areas could send their comments and queries. While the communities did not have veto prior, AMC chose to respond to all their comments and questions.

As the project design progressed, two addenda were submitted to address changes - the use of a pipeline to transport the concentrates and the use of a southern by-pass around the HNP, which was to be the main route to the mine. Furthermore, there were alleviation measures for the potential impacts of mining on the environment, as well as the health and safety of the people, for which standards and guidelines were issued by Peru, World Bank

and Canada. The financing of Antamina's project consisted of loans totaling US$1.32 billion from 22 international financial institutions, among them five import-export credit agencies.

The Presentation of the EIA in Huarmey

In 2001, the Director of Antamina and the Vice Minister of MEM went to Huarmey to present the results of the EIA, as well as the strategies that were going to be used by AMC, in order to guarantee the positive impact of its activities. However, the people of Huarmey went out to the streets and staged a huge protest, and participated in a demonstration blocking the highway route.

The key issue of their complaint was the construction of the Huarmey–Aija–Recuay highway, earlier promised by Antamina. They also remonstrated against the contamination that mining activities would create in the air and sea, and its ill-effects on their health. The situation proved very tense and the protesters held the authorities hostage in Huarmey. They were told that they would not be released until the demands of the people were met.

The directors of AMC had not expected this type of reaction. The construction of the pipeline instead of a highway had been made in response to the demands of NGOs and international organizations. It also sought to address the reservations of AMC's lenders with regard to the number of accidents that could occur using the existing route. The committee of lenders was taken for a site visit in 1998. They expressed their reservations regarding the quality of the road and the risk of accidents that could occur considering the high volume of truck shipments per hour and day. In addition, several tests were conducted to demonstrate that the AMC project complied with environmental exigencies.

The negotiation between representatives of AMC, local authorities and activists ended with the constitution of a Technical Multisectoral Commission made up of representatives of the people of Huarmey, the National Council of the Environment (or CONAM), the Sea Institute of Peru, and the MEM. The activists demanded a response to their 64 questions and requested CONAM to lead the commission.

Subsequently, a permanent water monitoring program was established, whose main objectives were the verification of the quality of the water, the observance of regulations and the keeping of commitments set in the EIA. Another program was the monitoring of aquatic and sea life, which entailed the participation of representatives from the communities who were responsible for environmental affairs in the districts of San Marcos and Huarmey.

THE MINING CANON

AMC contributed to the increase in the economic transfers that Ancash received through the Mining Canon, through the Ministry of Economy and Finance (MEF). The Mining Canon was the contribution paid to the Peruvian government for the right to benefit from the economic exploitation of mineral resources. According to the Law of Canon enacted in 2001, half of the income tax paid by mining companies in Peru would go to the regional and local governments of the area where they mined.[16] (See Exhibit 4.) The mining canon Law (No. 27506) distributed the total amount of the canon as follows: 75% to the local governments of those places from where the mineral was obtained [of this 10% should go to the municipalities of the district(s); 25% to the municipalities of the province(s) and 40% to the municipalities of the department] and the remaining 25% to the regional governments of the place from where the mineral was obtained or exploited. Peru was politically divided into 24 departments and one constitutional province (Callao). Each department was in turn divided into provinces, which were divided into districts. Each district, on the other hand, consists of

municipalities. Moreover, there was also a regional government which also had an authority elected by the population.

The Peruvian laws stipulated that incomes derived through the Mining Canon should be invested in projects oriented exclusively to reducing poverty, improving the population's quality of life, research and in technological development in universities. In turn, the settlers could actively take part in the election of the projects that would be executed through the "budgets by participation" or meetings between local authorities and communal organizations. In 2009, money transfers due to Mining Canon amounted to more than 3,671 million soles[17] (approximately US$1,266 million), with Ancash as the region that enjoyed the highest participation (25.4%). Meanwhile, San Marcos was the district in the region which received the biggest amount among all the other districts.

According to a study prepared by Apoyo Consultoria, the economic resources obtained through the mining canon in 2008 were distributed mainly to education and culture (29%), administration and planning (18%), and transport (17%), followed by health and plumbing (14%). However, even when transfers through the mining canon had increased in the region, the number of public projects executed using economic resources from the canon diminished over the years due to the lack of technical skills to prepare projects and comply with the public regulations established by the Peruvian MEF.

The perception of the population in Ancash was that the mining canon was important because it financed relevant projects that created employment opportunities and improved household incomes. For instance, Project Chinecas was expected to improve the irrigation system in the Ancash region. Other projects financed with the incomes received through the mining canon were related to infrastructure development (highways, roads and other important constructions).

AREAS AFFECTED BY ANTAMINA'S MINING ACTIVITIES

According to the investigation made by the National Institute of Statistics and Informatics of Peru, in 2008, the level of extreme poverty affecting the population living in the zones directly influenced by the mining activity was 16.7%, while it was 14.7% in the regional level.[18] Only 17.7% of the population had telephones, 12.8% had refrigerators and only 31.6% had kitchens fueled with gas. As for basic services, 36.7% of the houses lacked a waste pipe, while only 83% had electricity. In addition, wood was the main fuel used for cooking (68.2%). Houses were principally made of adobe bricks (72.6%).

The illiteracy rate was 18.5%, where the women had a higher rate (26.4%) compared to the men (10.4%). Illiteracy rates were higher for people living in the rural areas or those speaking Quechua or other languages different from Spanish. The study also indicated that respiratory illnesses still remained the main cause of infant mortality and that the percentage of chronic malnutrition affecting the people living in the direct area of influence was 39.4%, while the severe chronic malnutrition rate was 15.6%.

The main economic activity in the area directly affected by Antamina was agriculture (75.7%), with particular focus on cattle and forestry. As for employment and salaries, the average income received was S/.407 nuevos soles per month, with the amount averaging S/.519 nuevos soles for men and S/.239 nuevos soles for women. In addition, the family income in the rural areas averaged around S/.545 nuevos soles per month, while in the urban areas it was S/.1153 nuevos soles.[19]

Benefits with the Presence of Antamina

The AMC voluntarily initiated a Community Development Plan (CDP) to support the educational, economic and cultural activities in the area, and to develop a relation of trust with the locals. AMC had three platforms with the department of Institutional Relations of the company. (See Exhibit 5.)

Association Ancash. Formed in 2002 by AMC, Association Ancash started its activities a year after as a nonprofit civil organization. It was financed by donations of Antamina's shareholders amounting to US$1.5 million every year. The fund supported activities that sought sustainable development and the promotion of the historic and cultural patrimony of Ancash. Association Ancash only worked with proposals presented by organized social groups and on projects related to the conservation of the environment, sustainable tourism and the improvement of the local culture.

One important project was the marketing of Callejon of Conchucos[20] as a tourist destination. The Association also promoted training courses on tourism, the creation of the Institute for the Touristic Development of Conchucos, participation in an important Peruvian tourism fair; and the publication of the book *Conchucos: Gold of the Andes*. These activities helped promote the development of tourism in the area and allowed people the chance to work in tourism-related activities. According to recent statistics, the number of tourists in the zone increased by 25% and employed 300 people from the area. This increase was the result of the project accomplished in cooperation with the NGO Swisscontact four years ago.

The Community Relations Office. The Community Relations Office was committed to developing good relations with the communities, and attending to the requirements and other matters that could be addressed in the short run, complemented with training and the participation of the State and independent NGOs. It had a budget ranging between US$5 and US$7 million per year. Its sphere of action covered two districts with 26,000 people distributed across 27 communities in San Marcos and nine sectors close to the operation area. Its activities could be grouped into educative programs, health programs and productive programs. (See Table 3.)

TABLE 3:PROGRAMS DEVELOPED BY THE COMMUNITY RELATION OFFICE

Program	Activities
Education Programs	✓ Information technology training for 300 teachers ✓ Improvement of computer skills for 1,500 students ✓ Improvement in the quality of education ✓ Training in hotel management for 200 young people ✓ Scholarships for undergraduate studies
Health Programs	✓ Joint work with the Regional Health Authority ✓ Programs to prevent alcoholism in young people and family violence. ✓ Agreement with the NGO VIDA to provide equipment for the Local Committees of Health Management .
Productive Programs	✓ Experimental Center for the development of cattle (Shahuanga). ✓ Program "Potatoe seed" ✓ Programs to improve agricultural management. ✓ Programs to improve the rearing of alpacas in Yanacancha

Source: Antamina

The Enterprising Women Program was recently developed to improve the quality of life of the women living in the closest communities. Its main objective was to provide them the capabilities to develop activities which could help them obtain economic incomes. In its first phase it worked with three organized groups located in the communities of Pichui and Santa Cruz de Pichiu. Fifty women had since become skilled in the production of garments made of wool and alpaca. AMC also organized a fair in its installations so the garments made by these women could be sold. The idea was to keep up the training and promote the women's participation in Peruvian textile trade fairs. The women living in these communities expressed their satisfaction with the program. They indicated that the tools received would help them initiate economic activities and improve their quality of life. The program was a very important way of giving the women more economic independence amidst an environment where gender inequality prevailed.

The Antamina Mining Fund. Finally, the Antamina Mining Fund (AMF) was an agreement entitled the "Mining program in solidarity with the population,"[21] which was enacted in December 2006 and signed by the mining companies operating in Peru and the Peruvian Government. Under the agreement the mining companies, over a five-year period, committed a percentage of revenues from direct mining operations (or between 1% and 3.75% of the companies' utilities after taxes) to social responsibility efforts dealing with primarily education, health, nutrition and infrastructure, among others, in the area of influence of the mining operations. The economic resources obtained from the contribution of 39 mining companies would be divided between a local fund and a regional fund.[22]

AMC also signed a bilateral agreement with the Peruvian government to establish the AMF to administer the contributions and execute social investments already defined in the mining program. In 2007, AMC became the first mining company to formalize its individual voluntary contribution, which was valued at US$64.3 million by 31 May 2010. The AMF worked with a budget of US$207.9 million and used US$159.0 million.[23] The funds received were as follows: US$64.3 million in 2006, US$60.2 million in 2007, US$39.4 million in 2008 and US$ 44.0 million in 2009. AMF's area of responsibility was the entire Ancash region, the district of Llata in Huanuco and several villages located in the district of Paramonga.

The distribution of the funds was determined by the levels of poverty in the communities. Approximately 73.3% of the contributions to the local mining fund would be invested in the implementation of projects and programs. The remainder was to be allotted to child nutrition, basic education and health programs. The local mining fund was invested in 12 Ancash provinces located within the direct area of influence of the mine and the Llata district, in Huanuco. The regional mining fund was invested in the rest of the provinces that form part of the Ancash region.

In February 2007, Antamina set up a Local Technical Coordination Committee and a Regional Coordination Committee in the city of Huaraz. The local committee was made up of representatives from Antamina's regional government and the municipalities of Huari, San Marcos and Huarmey. The regional committee was made up of representatives from the Ancash regional government, the University Santiago Antunez de Mayolo, the University of Santa and Antamina. Both committees received information and suggestions regarding the projects developed by AMC.

Programs financed by the Antamina Mining Fund

The AMF worked on four areas. The health area and the productive development area worked with the 20 Ancash provinces and the district of Llata in Huanuco. The education area undertook projects in the provinces of Bolognesi, Huaraz, Huari, Huarmey and Recuay; and provided schools with desks and chairs at the regional level. The institutional

strengthening area developed projects in the provinces of Huaraz, Huari and Huarmey, and also funded social and productive infrastructure projects in the 17 other Ancash provinces. In 2009, more than US$159 million dollars was set aside for these areas, as follows: institutional strengthening area, 43%; health area, 24%; education area, 14%; and the productive development area, 14%.[24]

The health and nutrition area dealt with two problems affecting the population: chronic malnutrition in children less than three years of age and difficulties in getting specialized health care. The program Ally Micuy was implemented in order to reduce chronic malnutrition, prevent health issues and promote health care in the Ancash region. Its operations began in July 2007 and lasted until August 2010. Ally Micuy was completely financed with the resources of the AMF and was executed with the support of Caritas del Peru and ADRA Peru. Caritas del Peru was an institution promoted by the Peruvian Catholic Church. Its main objectives were to develop and promote programs for the poor people in Peru. On the other hand, ADRA Peru was a NGO working in more than 120 countries.

The program benefited 905 communities in 126 districts of the department of Ancash. According to the demographic and family health survey (ENDES 2007-2009) chronic malnutrition in children under five years in the Ancash region was reduced to 7.5%, while in the provinces of direct influence of the mine, it was reduced to 6.2%. Some other important results in the first two years of the project were as follows: vaccination coverage reached 96%, cases of diarrhea in children decreased to 16.7%, and the number of breast-feeding mothers increased by 96.1%.

A prenatal health program and a mother-child health care program were also set up. AMC worked with CARE Peru in this project, thereby reinforcing the capacity of 196 doctors, 157 nurses, 159 obstetricians, 651 technical personnel and 47 biologists. As a result, the quality of the health care services was expected to improve. In addition, there was a program which aimed to maintain and repair health infrastructure, equipment and facilities.

The Rebuilding Smiles program was a specialized activity set up to take care of children suffering from congenital anomalies like harelip and cleft palates. In this aspect, AMC partnered with Asociacion Civil Mision Caritas Felices. There was also the Assistance Program which provided medical assistance to isolated communities on the basis of their geographical inaccessibility's limiting their access to health facilities. In this project, AMC worked with the support of a local company, Servicios de Salud Corporativa.

The education program aimed to improve the quality of the equipment and education in schools. This program was in line with the Regional Education Plan and integrated different strategies related to curricular, communal, and training and management subjects which improved the quality of education. Among the activities carried out through the program were the distribution of desks and libraries in the provinces of Bolognesi, Huaraz, Huari, Huarmey and Recuay; and the repair of schools in different localities. Some important results at the end of 2009 were as follows: 300 schools had improved the communication skills of their students, and the teachers of 65 schools received training on teaching. In addition, 35,752 desks were distributed, while 77 schools benefited from maintenance work. In Huarmey, 10 recreational centers for children under three years were constructed. Moreover, Antamina developed educational projects in Huari, Bolognesi, Huarmey and Recuay, working in 103 educational institutions. Their main objective was to improve verbal and mathematical reasoning.

The Productive Development program created new companies and boosted sales by strengthening companies and increasing production capacity. For instance, the PRA Project

expanded the markets for small and medium sized businesses, incorporating them into export supply chains. In addition, NGO CARE executed the Alli Allpa project which consisted of developing and consolidating eight productive chains for the following: artichokes, corn, peas, tarwi, oats, dairy products, tara and fruits. As a result of these programs which facilitated linkages between producers and markets, sales reached US$18.8 million. Exactly 8,956 jobs were generated.

The institutional strengthening area implemented different projects. Four Municipal Management Units were set up in the provincial governments of Huarmey, Huari and Huaraz, and in the district government of San Marcos, to provide local authorities with the proper tools and skills to invest the economic resources it received through the mining canon and AMF. By the end of 2009, there were 57 projects executed. One project improved the management skills of the officers in the municipalities located in Huari, Huaraz, Chavin and San Marcos. This program focused on institutional planning, project administration, services and capacity management.

AMC also undertook a project "supporting the social and productive infrastructure of provincial governments in the Ancash region." The company signed agreements with 20 provincial municipalities in order to undertake the 74 social and productive projects prioritized by each provincial municipality. These projects complied with the rules and procedures of the National Public Investment System, whenever applicable. Around 70% of these projects focused on the productive development of the provinces in an effort to take advantage of local productive potentials. For instance, the region benefited from improvements in the highways which connected them to the coast. In addition, other secondary roadways were built along the mineral pipeline route, which could also become an alternate route to the coast. As a result, the travel time to Lima was reduced to two or three hours, effectively allowing the creation of a tourism corridor in the area and facilitating the exchange of persons and goods within the region. Furthermore, this program also provided electricity to a population center and their adjacent areas, improved the irrigation infrastructure in an area measuring 600 hectares, enhanced the telecommunications systems by giving wireline and wireless access to 20,000 people in 12 communities, and improved water and sanitation systems that benefited 4,500 families in the mine's area of influence.

In order to help regional and local governments promote sustainable programs, AMC developed several studies to improve current indicators in sectors like health, infrastructure, productive development and capacity building. In addition, AMC worked with different organizations to prepare development plans for the mining districts. There was also a 2008 – 2021 Regional Development Plan (RDP) for Ancash which AMC promoted to ensure sustainable activities in the region.

As a result of all the activities executed, a private consultancy report[25] determined that the area of influence of the mining company was in a better situation than the "not related to mining activities." The same report noted that the quality of life of people improved, with the poverty rate reduced to 6% and malnutrition to 7%. In addition, 18% more of the homes located in the area of influence had access to drinking water, while 10% more had access to electricity. (See Exhibit 4.)

These results boosted AMC's image before the communities and increased its socio-economic importance in the area. However, most of the activities relied completely on the funds obtained through the contribution established by law under the mining program in solidarity with the population. In addition, the perception of some people living in the region of Ancash was that the mining companies should meet all their needs. This perception was sometimes encouraged by NGOs or political parties that created a climate of confrontation

instead of dialogue. According to several AMC officials, the people living in the communities would never be satisfied, as they did not know exactly what their main needs were. The communities, mainly the ones closest to the mines, knew that media was always on the lookout for any manifestation against mining companies. With increased negotiating power, these communities had more chances to have their petitions granted, even when some projects were not relevant to the communities or did not concern the mining company.

TABLE 4: MAIN ACCOMPLISHMENTS (2007 - 2009)

Area	Investment 2007 -2009	Accomplishment
Access to water and electricity	12.2 million	• Installation of water systems, drains and ecological toilets for 656 families (3,280 people benefited) • Provision of electricity to a village and its 10 annexes • Amplification and improvement of the electrification system in Macashca and its annexes (2,000 beneficiaries)
Productive Development	24.8 million	• US$17.5 million in sales generated as a result of the articulation between producers and new markets • 72 projects approved and financed for US$10 million • Organization of two business days obtaining sales of US$6.6 million
Health and Nutrition	38.2 million	• US$1 million in proteins given to children of school age • The education of 120 districts regarding food practices as well as health care care of Ally Micuy

Source: Antamina

FUTURE PLANS

The mine was to be operative until 2029, according to the AMC project. The closure program included several activities meant to recover the area and alleviate the environmental impacts. With respect to the environment, the main objectives after the closure of the mine were to leave the soil and water courses in stable condition; restore the land to a productive stage compatible with its previous utilization; reforest the land according to the possibilities and recover the direction of the watercourses in order to ensure their auto-sustainability.

As for all the other projects like the ones financed by AMF, it was still not clear how they would work when this contribution ended. According to some officials, some of them would still be financed by the firm and would remain responsible for the Community Relations Area of Antamina.

In November 2009, the mining company announced its intention to use the utilities reinvestment mechanism to increase production and extend the useful life of the mine to 2029. The application of this measure implied a reduction in the taxes paid to the government, according to the regional authorities in Ancash. It also implied a reduction in the incomes received by the region through the mining canon.

Under this scenario, Antamina agreed with the Council Presidency of Ministers, the Regional Government of Ancash and the municipalities to put in place a mitigation program aimed to relieve the potential negative impact associated with the reduction in tax transfers resulting from the reinvestment of profits. Accordingly, Antamina would carry out its mitigation efforts through the implementation of two distinct mechanisms:

Indirect compensation. The AMF would underwrite public works (particularly water and sanitation projects) and the purchase of heavy equipment to benefit the regional government, all provincial governments and the 18 largest district municipalities.

Direct Compensation. Antamina would transfer directly to the poorest 128 district municipalities representing 88% of all districts in Ancash a total of US$4,145,690. The amounts transferred would compensate each participating municipality for the tax income forgone as a result of RDP implementation, thus enabling local governments to carry out their social investment program. To that end, individual checks would range from US$2,000 for the smallest recipient to US$130,000 for the largest ones. A mechanism was established that spelled out the specific institutional responsibilities to be assumed by each recipient municipality.

According to a report prepared by Apoyo Consultoria, even when the Ancash region received 969 million soles (approximately US$340 million dollars) in 2008, only 42% of this budget was used because of the lack of coherent projects and the paucity of responsible and skilled authorities in the local governments. Local governments in Ancash showed high levels of corruption and low technical skills. As a result, the incomes obtained by the region through the canon and other sources were not well employed.

According to estimates, the proposed expansion of the project which meant extending the life of the mine to 2029, implied the following:

- a 38% increase in the complex's ore processing
- a 0.2% increase in the economic activity
- due to the construction of the extension, the availability of 1,450 new direct jobs
- due to the production phase, the availability of 600 additional jobs per year[26]
- from 2009 to 2029, the Ancash region's receiving US$2,723 million for the mining canon.

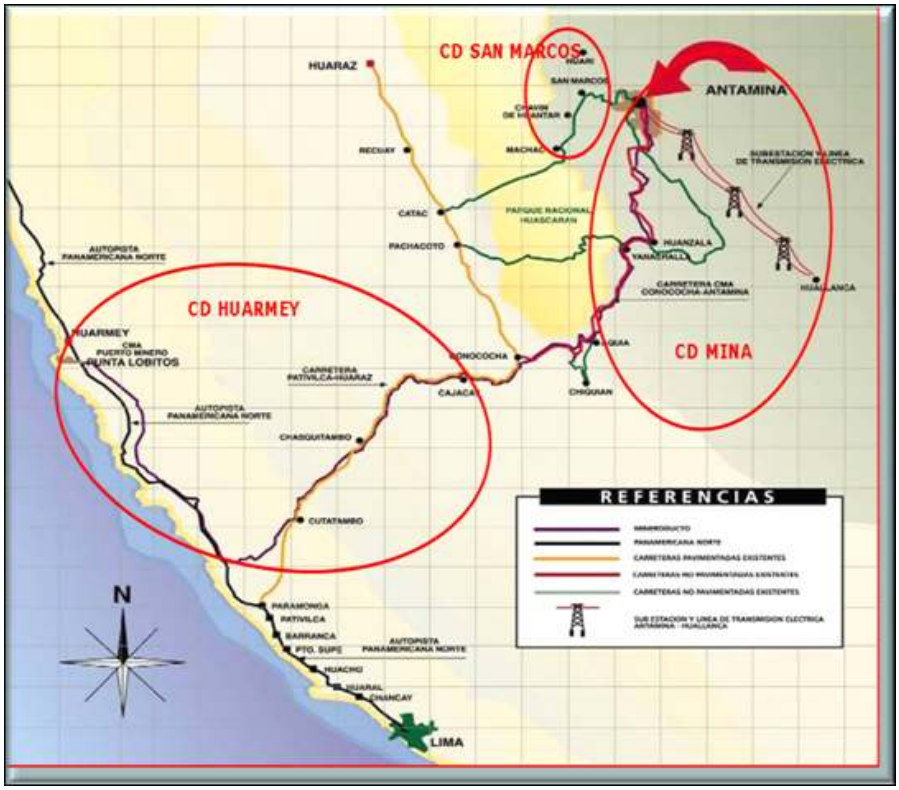
EXHIBIT 1: LOCATION OF ANTAMINA MINING COMPANY IN PERU

EXHIBIT 2: MAP OF ANCASH

District of San Marcos

Port Punta Lobitos

EXHIBIT 3: LOCATION OF THE MINE AND PORT



Source: Antamina

EXHIBIT 4:

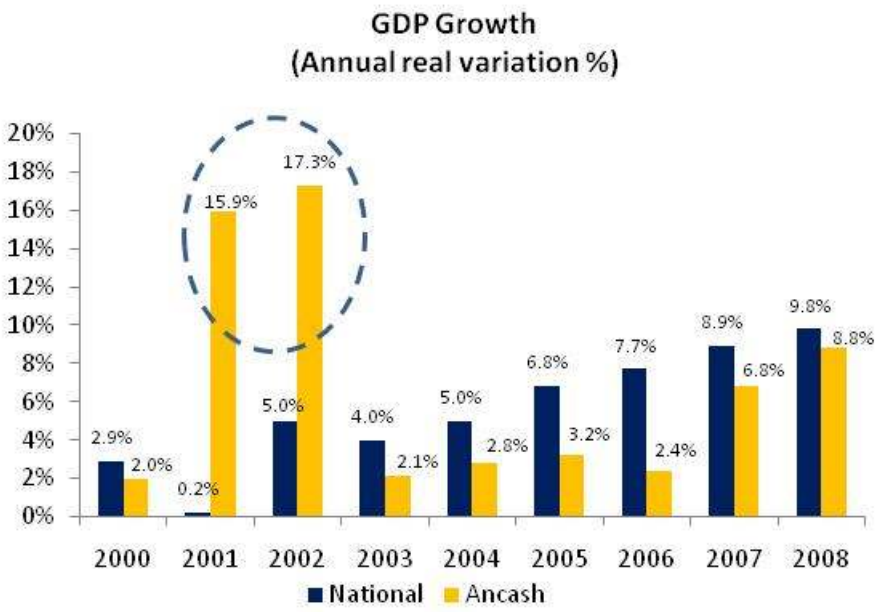
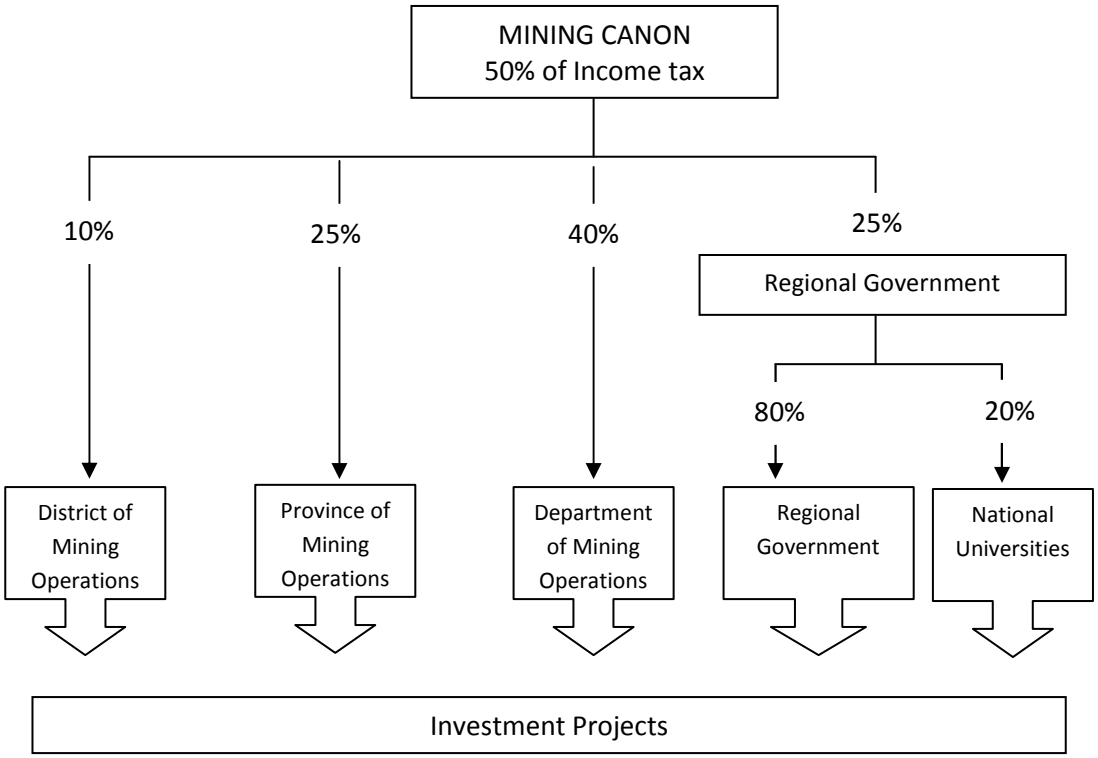
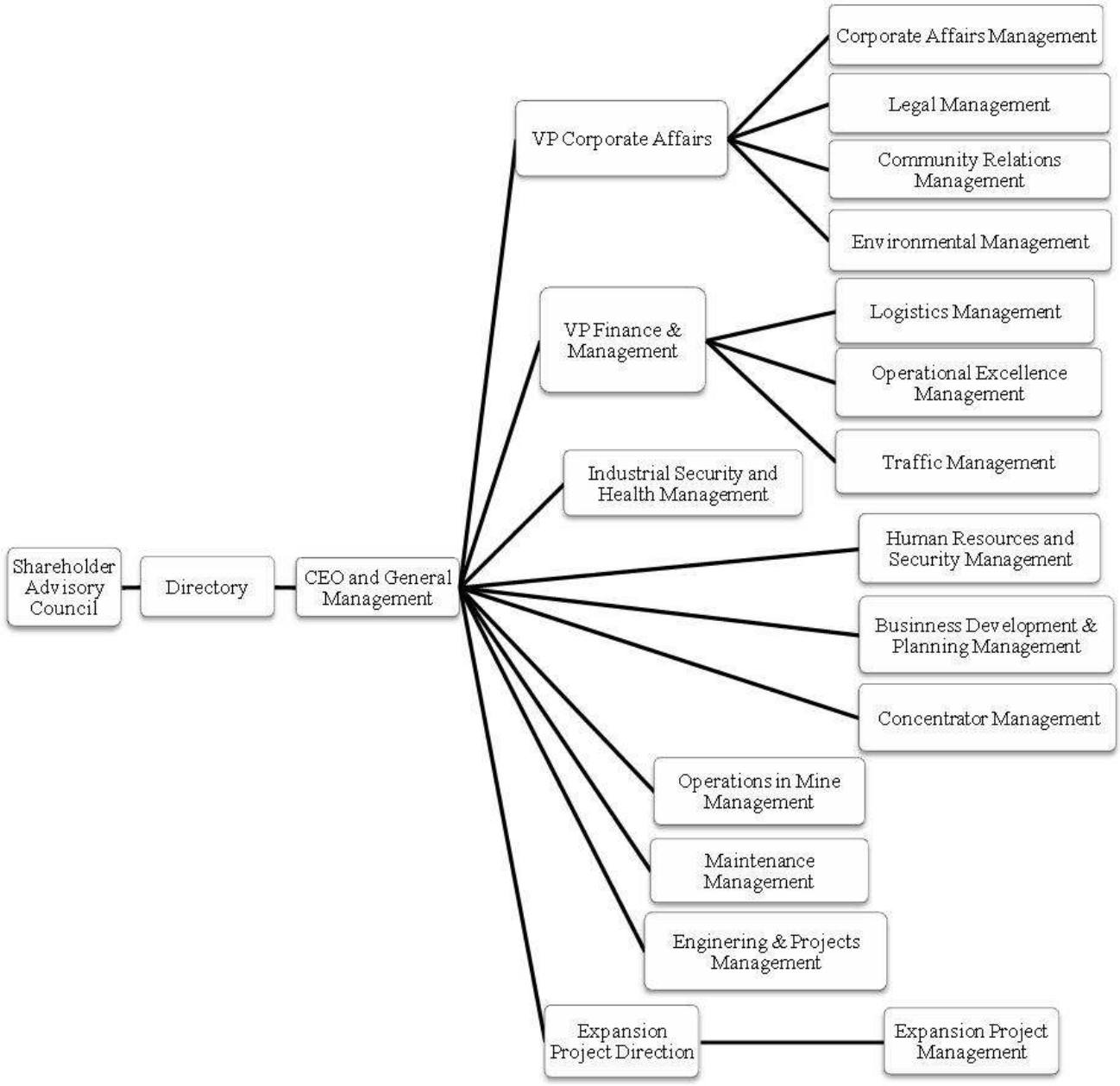


EXHIBIT 5: DISTRIBUTION OF THE MINING CANON IN PERU



Source: Ministry of Energy and Mining

EXHIBIT 6: ORGANIZATION OF ANTAMINA MINING COMPANY



Source: Antamina Mining Company

Endnotes

[1] National Institute of Statistics and Informatics of Peru. Census 2007. Retrieved from http://english.turkcebilgi.com/Ancash

[2] Ministry of Economics and Finance of Peru. Retrieved from http://www.mef.gob.pe/

[3] The dock draught allowed the viability of the port.

[4] Peruvian National Institute of Natural Resources (INRENA). Retrieve from http://www.portofentry.com/site/root/resources/industry_news/6763.html

[5] The Mountain Institute (TMI) was an international private voluntary organization based in the US. Its support for HNP included assistance in the park management planning tools, the community development projects, publications and in research. TMI was also in contact with the managers at Antamina and suggested alternative transportation routes.

[6] Steven Botts and Frida Caballero. "Antamina and Huascaran National Park: A Case Study in Mining, Conservation and Sustainable Development," 2001, <http://www.commdev.org>
[7] Retrieve from http://www.diariolaprimeraperu.com/online/huaraz/noticia.php?IDnoticia=6881

[8] Obtaining licenses and permits was a constraint for the project, particularly when these were required for basic instruments or products. For instance, according to the Ministry of Transport and Communications, it was obligatory to obtain a license for each radio used at the mine. In addition, the Ministry of Health required a sanitary permit for each portable toilet used.

[9] Mining exports in 2009 were valued at US$ 16,361 million; in 2008 they totaled US$ 18,657 million. Retrieved from http://www.bhpbilliton.com
[10] Annual Mining Report 2009. Retrieved from http://www.infomine.com
[11] OSINERGMIN, 2007.
[12]Administrative institutions of first instance included the General Direction of Mining, the General Direction of Environmental Affairs and the Mining, and the Metallurgic Geologic Institute.
[13] Ley Marco para el crecimiento de la inversión privada (1991).
[14] Decreto Supremo 050-92-EM published in September 1992.
[15] The presentation of the EIA was done after the construction of the mine.
[16] See exhibit N° 4. The mining canon Law (No. 27506) distributed the total amount of the canon as follows: 75% to the local governments of those places from where the mineral was obtained [of this 10% should go to the municipalities of the district(s); 25% to the municipalities of the province(s) and 40% to the municipalities of the department] and the remaining 25% to the regional governments of the place from where the mineral was obtained or exploited.

Peru was politically divided into 24 departments and one constitutional province (Callao). Each department was in turn divided into provinces, which were divided into districts. Each district, on the other hand, consists of municipalities. Moreover, there was also a regional government which also had an authority elected by the population.
[17] Currency of Peru "nuevos sols"

[18] In October 2007, Antamina Mining Company signed an agreement with the National Institute of Statistics and Informatics to analyze the situation of the zones affected by Antamina mining activities. This study was an important tool for the company in developing the activities financed by the Mining Fund Antamina. The zones considered to be of direct influence were the districts of Huari, Chavin de Huantar, San Marcos, Pampas Chico, Cajacay, Antonio Raymondi, Pararin, Colquioc and Huarmey. The rest of the districts fell under the regional scope. The study did not consider the provinces of Santa, Casma, Huarmey (with the exception of the district of Huarmey), Ocros, Pallasca, Corongo, Huaraz and Recuay (with the exception of the districts of Pararin and Pampas Chico).
[19] The exchange rate is 2.82 soles per US dollar according to the Central Bank of Peru (27 July 2010).
[20] It is located in the Cordillera Blanca mountain range in the department of Ancash. An important archaeological site, Chavin de Huantar, is found in the area. In addition, it has different natural attractions such as thermo-medicinal waters, hunting places and beautiful landscapes.
[21] D.S. 071-2006-EM Retrieved from http://www.lainsignia.org/2007/abril/econ_002.htm
[22] There are three basic conditions which should be complied with: (i) the mining company should sign the agreement, (ii) the mining company should register utilities during the year in question and (iii) the prices of minerals should be "extraordinary"; that is, the average value for the year should exceed the value determined in the agreement (which is updated annually). It has also been established that the resources cannot be returned to the mining company.
[23] The funds received were as follows: US$64.3 million in 2006, US$60.2 million in 2007, US$39.4 million in 2008 and US$44.0 million in 2009.

[24] Antamina 2009.
[25] Apoyo Consultoria, 2010, <http://www.apoyoconsultoria.com/default.aspx>
[26] The monthly average wage of the employees in Antamina was US$ 2234, which was 6.4 times more than the average wage in the mining sector at the economy level.

IMPLEMENTING CORPORATE SOCIAL RESPONSIBILITY IN DIFFERENT MINE SITES: THE EXPERIENCE OF PHILEX MINING CORPORATION

Since its establishment in the 1950s, Philex Mining Corporation (PMC) has been committed to responsible mining practices and contributing to nation building through its various businesses. PMC has also always gone beyond compliance, especially in matters relating to the environment and the community[1] Corporate Social Responsibility (CSR) is a "top priority of the company."[2] For this reason, among a few others, the PMC has been able to operate in its Padcal site for the past 50 years.[3]

PMC established the Environment and Community Relations Department (ECRD) to direct its CSR Programs, and ensure that its environment and community relations objectives are implemented accordingly. The ECRD has a CSR framework, which is followed across PMC's different mine sites and serves as a guide for the implementing departments. However, it is important to note that the framework cannot always be implemented by all departments accordingly, because the operating environment differs per site.[4]

Through the years, PMC has expanded its operations beyond its first and longest operational mine in Padcal, to include other mine sites in different parts of the Philippines. These different mine sites are in various stages of mining. There is a need to remember that various factors affect mining operations, among them the community, the local government and the non-government organizations, as well as external factors such as security issues and past mining experiences in the area.

This case study starts with a background on PMC, inclusive of its CSR principles. A discussion of the company's CSR framework and its best practices in the implementation of CSR follows. It will focus on the CSR framework of PMC and the implementation of CSR programs across its different mine sites which, as mentioned, are in varying stages of the mine-life cycle. It also takes into consideration the different factors that affect the implementation of CSR in the different sites. Lastly, the case will discuss the CSR programs of PMC and the challenges the company has been facing faced in the different mines sites, particularly in Tuba, Benguet (operational); Sipalay, Negros Occidental (care and maintenance, and exploration) and Surigao del Norte (exploration). (See Annex 1.)

BACKGROUND OF PMC

PMC was incorporated in 1955 to engage primarily in mining activities. As of 31 December 2009, the company had 46,055 stockholders on record, with 37.73% of its outstanding shares owned by foreign citizens and institutions[5]

Its initial site was the Padcal Mine in Tuba, Benguet, which the company has been operating since 1958. The Padcal Mine was the first underground block cave operation in the region, and it is the only remaining large-scale copper-gold operation in the Philippines.[6]

This case study was written by Marie Kirstin de Jesus with company clearance from Philex Mining Incorporated for use in academic discussions. She earned her Bachelor of Arts in Humanities with Professional Certificate in Political Economy from the University of Asian and the Pacific. With five years of professional research experience, her research interests include Corporate Social Responsibility and Governance issues.

In the 1980s, PMC's exploration strategy focused on gold. At the time, the company acquired a number of gold claims throughout the economy. This resulted in PMC's first gold operation, the Bulawan Mine in Negros Occidental, which operated from 1996 to 2002. Due to unfavorable metal prices vis-à-vis operating costs, the site was placed in care and maintenance, in keeping with the Mining Act which stipulates that a company should maintain the area for at least 10 years after mine closure.

In 1996, the various gold assets of PMC, including the Bulawan Mine, were spun off to Philex Gold Philippines, Inc. (PGPI). In the same year, through a swap of shares, ownership of PGPI was transferred to Philex Gold Inc. (PGI), a subsidiary that was 81% Canadian-owned.[7]

For Shareholders and Stakeholders

We undertake our mining activities efficiently and responsibly, consistent with best practice in mineral exploration and development to enhance shareholder value and create value for our stakeholders – the State, the local governments, host communities and indigenous peoples, our employees, customers, contractors and suppliers.

Since 2001, PGPI has focused on the Boyongan copper-gold porphyry deposit in Surigao del Norte, which was discovered in August 2000 by the Silangan Mindanao Mining Company (SMMCI), a joint venture with Anglo American Exploration (Philippines) B.V.(Anglo). In 2005, PGPI entered into a joint venture agreement with FEC Resources, Inc. (FEC), a 51.24%-owned subsidiary of the company, to ensure funding for the exploration of PGPI's Lascogon gold project in North Eastern Surigao. As FEC also owns 25.84% of Forum Energy Plc (FEP) the total holdings of the Company in FEP through Philex Petroleum Corporation and FEC would be 62.60%. On 6 February 2009, PMC acquired Anglo's 50% interest in the Silangan Project, giving PMC control over the project.

PMC, Philex Gold Philippines, Inc. (PGPI) and its subsidiaries, and Brixton Energy & Mining Corporation are primarily into the large-scale exploration, development, and utilization of mineral resources. The parent company, PMC, operates the Padcal Mine in Benguet. PMC and its subsidiaries derive their income mainly from the Padcal Mine.[8] (See Annex 2.)

Mining Activities

PMC has 132,477 hectares of claim holdings covered by applications for approval, approved mineral production sharing agreement (MPSA), exploration permits or mining lease contracts. The company's main operation is in its Padcal site. The mine life of the Padcal site is expected to last until 2017.

Exploration

Exploration and development are currently done in-house. Since 2005, PMC has been intensifying its exploration activities and has raised its exploration investments from PhP49 million starting 2006, to PhP116 million in 2007, PhP426 million in 2008 and PhP842 million in 2009.

PMC and PGPI entered into joint venture arrangements with Anglo American Exploration (Philippines) BV (Anglo), a subsidiary of Anglo American PLC in 1999. The agreements aimed to explore PMC's claims in Benguet and PGPI's claims in Surigao del Norte.

The PGI property exploration conducted in Surigao del Norte resulted in the Silangan Project and the discovery of the Boyongan ore body. However, in 2008 Anglo American sold its shares to PMC, giving the company control over the property. In addition, exploration

activities were done in the Negros Occidental site, particularly in Vista Alegre and Bulog. Exploration was also conducted in the other claim areas in Padcal.

Other Development Activities

Brixton, a wholly owned subsidiary of the company, is engaged in the exploration and development of energy related resources. In May 2008, its Coal Operating Contract was converted into a Coal Operating Contract for Development and Production for a period of 10 years, followed by another 10-year extension. The contract covers two coal blocks in Sibugay, Zamboanga.

In November 2008, Brixton obtained the Environmental Compliance Certificate for the advancement of the coal project to the development stage in 2009, with an estimated capital requirement of PhP280 million. Expenditures on this project amounted to PhP149.8 million, with PhP100 million spent as of 31 December 2009. Commercial operations were expected to start in 2010.

Production and Sales

All of the parent company's sales revenues for the years 2007 to 2009 were from copper concentrate shipments to Japan. PMC's Padcal mine produced these copper concentrates containing copper, gold and silver. Majority of the mine's production is primarily smelted in the Saganoseki smelter in Kyushu Island, Japan, through Pan Pacific Copper Co., Ltd (Pan Pacific). Pan Pacific is a joint venture company of Nippon Mining Co. Ltd and Mitsui Mining and Smelting Co., Ltd.

Under its long-term gold and copper concentrates sales agreement with Pan Pacific, the company committed to sell 75% of the concentrates produced from the Padcal mine in 2004. In 2007, the company entered into a contract with Louis Dreyfus Commodities Metals Suisse SA for the uncommitted balance of the company's copper concentrates from April 2007 to March 2011.

Sources and the Availability of Raw Materials and Supplies

The company's ore production, raw material extracted, comes from its mineral properties covering the Padcal mine. Operating supplies, equipment and spare parts, which are generally available, are provided by a number of local and foreign suppliers on a competitive basis.

THE PHILIPPINE MINING INDUSTRY

The Philippines is the fifth most mineralized economy in the world. It has nine million hectares of mineralized land with established reserves of 13 metallic and 29 non-metallic minerals. The National Economic Development Authority (NEDA) estimates that the economy has around PhP47.08 trillion (US$840 billion) worth of mineral wealth waiting to be extracted from the ground.[9]

The Philippine mining industry was a major contributor to the Philippine economy in the 1970s, when its share of total exports reached 20%. However, due to the continuous decline of international metal prices, the lack of investment in the global mineral industry and increased anti-mining activism, the Philippine mining industry's economic contribution declined to about 2% in 2001. Notwithstanding this development, the industry still provides

substantial employment. In 2003, for example, it hired 104,000 workers and paid PhP5 billion in wages and benefits.[10]
Aside from providing employment and paying taxes to the government from their mining activities, mining companies have also been providing social development programs in their host communities.

Notwithstanding these benefits from mining operations, however, an anti-mining sentiment has surfaced and gained ground over the years because of the environmental degradation caused by companies such as Marcopper in Marinduque, where three million toxic tailings caused the biological deaths of two rivers in the area and affected the livelihood of local residents.

Concerned Government Units

There are a number of government units involved in the different aspects of mining operations. The Department of Environment and Natural Resources (DENR) is constitutionally mandated to promote environmental protection, while encouraging the sustainable commercial utilization of natural resources. The Mines and Geosciences Bureau (MGB),[11] the Environmental Management Bureau (EMB)[12] and the Pollution Adjudication Board (PAB)[13] are DENR bureaus and offices involved in promoting and regulating mining.

The Department of Trade and Industry (DTI) is responsible for the issuance of business licenses, while the Bureau of Internal Revenue (BIR) is charged with revenue collection by the government.

The respective local government units (LGUs) (i.e., provincial and municipal governments) are also important because they issue local business permits (i.e., Mayor's Permit). Some LGUs also have their own ordinances regarding the environment and community development.

Relevant Mining Laws and Policies

The Philippine Mining Act of 1995 (PMA) provides for a more liberal investment policy and promotes responsible mining. It requires mining companies to secure free, prior and informed consent from affected communities within the host area, before they can be granted the necessary permits by government. As mentioned previously, the law requires mining companies to allocate at least 1% of total milling and mining costs to the social development of the host area. Mining companies also need to pay royalties amounting to at least 1% of their annual gross revenues to the affected indigenous communities.[14]

As far as the environment is concerned, the law requires mining companies to submit an environmental impact statement and an environmental compliance certificate, and to have an environmental protection and enhancement program. In addition, the law also mandates the formation of a multipartite monitoring team (MMT) or a multi-sectoral team composed of representatives from DENR, LGUs, the company and other identified stakeholder groups to ensure the mining companies' compliance with the law. The focus of the MMT is to ensure that mining operations comply with the Environmental Protection and Enhancement Program (EPEP) and the Annual Environmental Protection and Enhancement Program (AEPEP).

THE IMPORTANCE OF CSR TO PMC

PMC has always gone beyond government requirements in fulfilling its CSR. The company believes it can contribute to nation building through its businesses can be seen in its Mission-Vision statement. As mentioned previously, PMC is focused on ensuring that it adheres to responsible mining practices while ensuring the profitability of the company for its shareholders.

Vision-Mission of Philex Mining Company

Vision Statement A socially responsible Filipino company striving for excellence in mining.

Mission Statement

We shall continue to improve our present gold and copper mining activities to make them more efficient and cost-effective.

We shall continue to expand our mining operations to take advantage of emerging opportunities throughout the Philippines.

We will continue to be socially responsible by supporting the communities where we operate by protecting and enhancing the environment.

We will develop all our employees so that they will use their talents to work professionally, harmoniously and safely towards the achievement of our vision.

In all our activities, we will aim for excellence which means doing everything in the best possible way, striving to be the best we can be.

By achieving our mission, we will enhance shareholder's value and our contribution to nation-building.

CSR contributed to PMC's bottom line financially by helping the company achieve its objective of helping in nation building. Achieving this objective is important for PMC because the company recognizes its being part of society and its obligation to invest appropriately in the economy.[15]

As a corporation, PMC has to balance its CSR initiatives since it is also accountable to its shareholders. It sees CSR not as a cost, but as an investment, and views investing in one local community at a time as a step toward nation building.[16]

Sustainable development is an important concept for the mining industry since mineral resources are finite. PMC, in particular, believes that it needs to take care of the environment and the community because, in the end, after the mine has closed down, the community should be self-sustaining.

Furthermore, it sees CSR as helping the company maintain good relations with the community, which it considers important to the continuous operation of the company. PMC acknowledges how investing in social development contributes to the bottom line. Also, it finds it important that the company has helped the community.[17]

Exploration activities attendant to mining may show that a claim is not commercially viable at the time of exploration. However, in the future, with the development of new methods of extraction and operation, a claim may become commercially viable. PMC believes that if it has a bad relationship with the community, then it will experience difficulty returning into the area in the long-run.[18]

THE CSR FRAMEWORK

PMC's CSR framework is focused on community development and the environment. The company believes that by contributing to the environment, and to the social and economic progress of its partner communities, it is helping out in nation building, in keeping with the company's mission.

FIGURE 1: CSR FRAMEWORK OF PHILEX

Environment Responsibility

PMC is committed to practicing responsible mining. It believes it is important for the company to minimize its environmental footprint. Even before the PMA of 1995 required corporations to rehabilitate the mine sites it operated, PMC had already been practicing progressive rehabilitation. This meant that as soon as a disturbed area was regarded as non-operational, PMC subjected it to rehabilitation in order to restore it, as much as was possible, to its original state. PMC was also the first mine site in the Philippines to become ISO14001 certified, even before this became a government requirement.

Environment Policy

Philex, as a socially and environmentally responsible Philippine company striving for excellence in mineral resource development, is committed to the continual improvement of its operations, to minimize adverse environmental impacts, to comply with applicable legislations and other requirements, and to promote environmental awareness and commitment among its workers at all levels.

Community Development

The focus of PMC is to create self-reliant communities. As it is, the danger in mining always lies in the fact that the communities become reliant on the corporation. But PMC adheres to the idea that it is important to create local development because mineral resources are finite, such that there will come a time when mining operations will cease. It is for this reason that PMC adheres to the concept of "counterparting." That is, if the community wants a project such as a school building, PMC requires that the community be responsible for a portion of it. A possible division would be for the company to provide the funds for its construction, the government to provide the land and the community to provide the labor.

Aside from this, PMC believes that it is important for its people to understand the community. As much as possible, it thus hires a community relations officer from the area. Further, the PMC community relations officer is also required to stay in the community where PMC operates for at least three days a week because PMC believes that it cannot really know what the needs of the community are, unless it has someone in the area whom the community can trust and relate to.[19]

Communities and the Indigenous Peoples

We recognize the desires and aspirations of the communities and indigenous peoples (IP) hosting our projects. To them, we commit that we will act responsibly and will obey applicable laws to:

(1) minimize the impact of our projects on the environment;

(2) protect the health and safety of those directly affected by our activities; and

(3) ensure that they receive real benefits from our operations.

It is essential for us to engage our host communities and IP, that they may see us as responsible, fair, honest, and law abiding corporate citizens in all phases of our operations. We treat our host communities and indigenous peoples as our partners in the exploration and development of our mining projects. To us, social acceptability is very important for long-term, stable and beneficial resource development. We strive to give the communities and indigenous peoples the real benefits from our operations and to leave them a lasting legacy by adopting programs geared towards developing their livelihood and capacity requirements and their social, cultural, educational, health, safety and environmental needs.

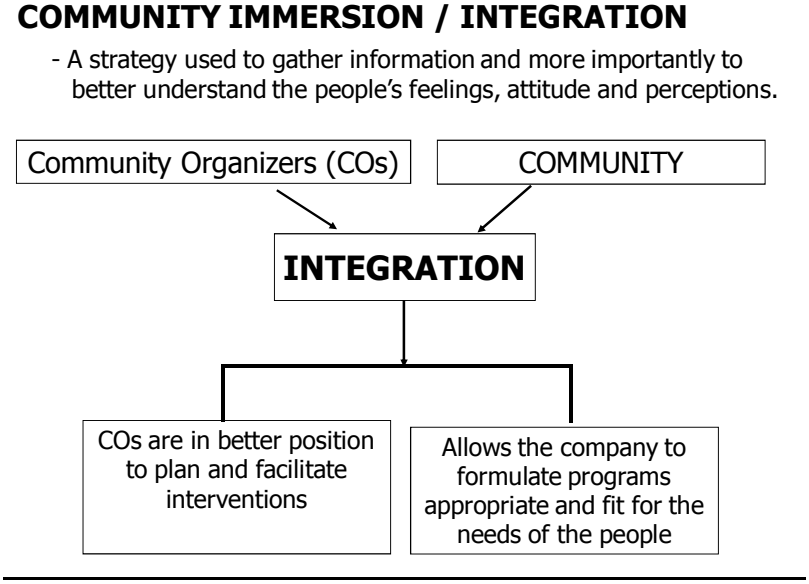


FIGURE 2: CSR FRAMEWORK-COMMUNITY IMMERSION

Implementing Department

PMC's CSR programs center on the community and the environment. The two always go hand in hand because the company believes that whatever affects its mining operations will also have social repercussions. It further believes that "if the environment is not managed properly, there will be negative implications on social development."[20]

In order to ensure that both the environmental and social aspects are taken into consideration, PMC created an inter-departmental coordinating division called the ECRD to handle the company's CSR programs. ECRD has these main functions: "to formulate, implement and recommend changes in policies, procedures and trainings related to environment and community development".[21] The ECRD is composed of four working groups:

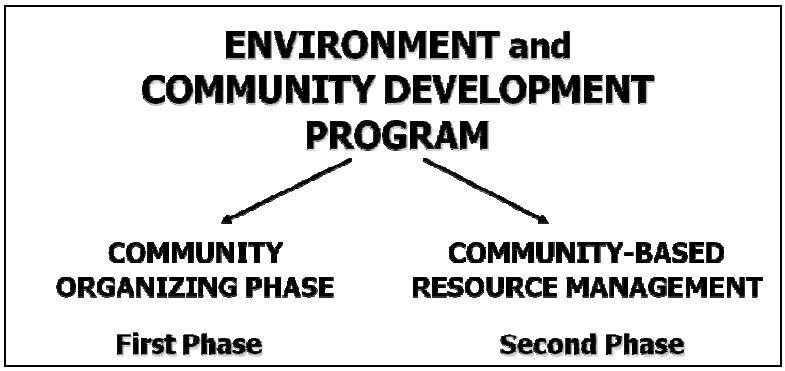
1. Environmental Engineering and Quality Monitoring
2. Environmental Enhancement (Forestry)
3. Environmental Sanitation and Beautification
4. Community Development

The formulation and implementation the environmental and community relations policy is left in the hands of the ECRD. Implementation, coordination and operation problems that arise are resolved by the Philex Environmental Committee (PEC), a sub-committee under the ECRD. The PEC is also responsible for participating in the regular community and environmental inspections, and in the meetings and activities of the MMT.[22]

The ECRD is headed by the Vice President for the Environment and Community Relations, who reports directly to the President and Chief Operating Officer of PMC.[23]

Implementation Strategy

PMC employs a two-stage approach in implementing its community and environment programs. The first step is the community organizing phase, which seeks to create a base for the implementation of its projects in the community. PMC considers it important to work with the stakeholders, especially the community and the local government in the area, to ensure that the needs of the community are addressed. Community organizing includes community immersion and consistent consultations with the community. PMC ensures that the voice of the community is taken into consideration in the decision-making process and implementation of programs for the community.



Source: Philex Mining Corporation

FIGURE 3: TWO PHASED CSR IMPLEMENTATION STRATEGY OF PHILEX

Also, as the company does not believe in the concept of dole-outs since the company wants to promote self-reliance in the community. Its approach also ensures that the stakeholders (i.e., the host community and the LGU) have ownership of the project. The stakeholders therefore become therefore are made to (or therefore become) PMC's implementation partners through the concept of "counterparting."

Source: Philex Mining Corporation

FIGURE 4: THE TWO PHASED CSR IMPLEMENTATION STRATEGY OF PHILEX

After PMC has established a partnership with its stakeholders, it implements the second phase which is focused on community-based resource management. PMC considers it important for the community to play an active role in promoting local development. In line with this, issues to be addressed are prioritized in consultation with the community. It is also in this regard that the community relations officer plays an important role. Since he or she is immersed in the community, the community relations officer is seen to be in a better position to give recommendations on the issues faced by the company.

IMPLEMENTING CSR IN THE DIFFERENT SITES AND STAGES OF MINING

The Exploration in Surigao

Background

Exploration in Boyongan, Surigao del Norte began in 1999 under the Silangan Mindanao Exploration Company, a joint-venture between PGPI and Anglo-American. The project is located within the jurisdiction of Barangay Timamana, Municipality of Tubod, some 30kilometers south of Surigao City. PMC and its subsidiary, PGI, gained a majority stake in the Boyongan gold and copper mine after the latter purchased the 50% stake of Anglo-American, the world's fourth-largest diversified mining group.

PGPI and Anglo-American had differences in their assessment of the viability of the copper and gold project. A US$50-million pre-feasibility study by Anglo American indicated that the investment needed to explore the Boyongan mine in Surigao would not produce an acceptable rate of return. PMC, for its part, believed that the mine was a worthwhile investment.[24]

Currently, operations in Surigao are still at the exploration stage under PGPI. Prior exploration had been done by the company in the 1980s, but technology and the decreasing prices of mining products, particularly gold, had prevented commercial operations.[25]

The Boyongan Copper lode is one of the government's 24 priority mining projects. It has an estimated ore reserve of 300 million tons at 0.6% copper and one gram per ton of gold, according to the Mines and Geosciences Bureau. PMC said production at the Boyongan mine could start by 2012. Based on current projections, the site in Surigao may hold more deposits than the Padcal site, which has been operating for more than 50 years.

There is strong anti-mining group that PMC has to deal with. This is partly a result of the past mining experience in the area, which made several groups hesitant to allow mining in the area once again.

Stakeholders and Various Concerns

The Environment

The province of Surigao had several negative experiences with some mining companies operating in the area. In the mid-1990s, a coal explosion claimed the lives of around 13 workers. In 1999, a tailings spill from a damaged concrete pipe in Manila Mining Corporation’s mine site in Placer, Surigao del Norte, buried 17 homes and swamped almost 51 hectares of farm lands.[26]

Community

The impacted community, which was largely agricultural, had a total population of about 2,000 households. According to a study done by the company, the primary issues faced by the community were the high unemployment rate, the lack of business opportunities and alternative sources of livelihood, the maintenance of infrastructure (i.e., roads, school buildings), a poor water system and poor waste management.[27]

Due to the negative experience of the community with mining, a strong anti-mining sentiment prevails in the host community and in the surrounding municipalities, some of them outside the immediate impact area of the mining company.

Another concern of the community is with regard to the benefits that they receive from PMC. The community had previously experienced the benefits from an operational mine; but as PMC is only currently in the exploration stage at the site, it cannot possibly give the benefits that the people are already expecting at this point.

Indigenous Peoples

The identified IP group in the area is the Mamanwa Tribe on whose ancestral lands there exist several mining claims. The tribe has already been receiving royalties from Taganito Mining Corporation. There are, however, ongoing disagreements regarding the distribution of the money among the different datus and their tribes.

Local Government

Due to the legacy issues that PMC faces in the area, local government officials are hesitant to allow mining operations in the area.

Regulatory Agency

The local MGB has played an active role in ensuring responsible mining, in addition to its mandate to enforce existing legislation.

Non-Government Organizations

The Lower Anislagan Farmers Irrigators Association of Barangay Anislagan, Placer Dome Surigao del Norte and the Sta. Cruz Farmers Irrigators Association are two of the main anti-mining groups in the area. They are concerned about the negative effects of mining on their community, especially on their water source. The said NGOs have been protesting the exploration being conducted by PMC.

CSR IMPLEMENTATION

Building Ties with the Community

Given the anti-mining sentiments at the site, PMC's community development officers and staff have immersed themselves in the community to gain a better understanding of the issues faced by the community. The team includes even PMC's Vice-President.

Initially, under Silangan Mining Corporation, exploration activities were handled by Anglo-American and community relations by PMC. Although, Anglo American and PMC were

separate entities, the operations observed PMCs CSR framework. Prior to the exploration team's activities, the community relations team had entered the community and talked with surface claimants to ensure that the owners were agreeable to drilling operations.

Information campaigns were also conducted in the affected community to ensure that the residents understood what the company would be doing, and what measures it would be taking to guarantee minimal negative impact on the area.

Aside from this, the company also brought local leaders to the Padcal site so they would have a better understanding of the benefits that the community could possibly derive from an operational mine. This move also allowed the leaders to see that PMC was operating in a responsible manner.[28]

Furthermore, PMC supported the creation of the Community Technical Working Group (CTWG) as recommended by the MGB Region 13. The CTWG is an environment and impact assessment team that allows the active and meaningful participation of the communities in the monitoring and improvement of the company's environmental and community development programs. It is composed of representatives from MGB13, company, LGUs, NGO, and academe. The creation of the CTWG is not required by law since the company is still in the exploration stage.

Corporate Social Responsibility Programs

Although the company is not required to implement social development programs during the exploration stage, PMC has already started implementing community development programs for the surrounding community.[29] The reasons behind this move are that the company wants the community to know PMC and so it can contribute to local development.

In addition, the community relations officer of PMC works closely with the exploration team. Although PMC owns mining claims and can legally proceed, it believes that it is important to discuss and seek the permission of the surface claimants in the area of operation.

Thus, the policy of PMC is such that the community relations department first enters the exploration site and discusses its activities with the community, as well as their impact. Only after an agreement has been reached with the surface claimants will the community relations department give the go signal for the exploration team to proceed with drilling activities.

Environment Programs

Even in the exploration stage, PMC practices progressive rehabilitation. After a sample has been taken from each drill site, the environment and community relations team immediately implements measures such as tree planting activities, so as to leave minimal environmental footprint in the area.

PMC also actively supports various component projects under its Health, Sanitation & Environmental Management Program, among them the Ecological Solid Waste Management (ESWM) program and the year-long Clean and Green contests implemented in partnership with the municipal and barangay LGUs.

In line with the Environmental Management Program, the company rehabilitated one nursery each care of the Timamana Barangay LGU and the Timamana National High School. Further, about 2,000 seedlings of hardwood and fruit trees such as falcata, mangium, narra,

mahogany and mango were propagated and planted along the river banks of Timamana during the Araw ng Tubod Celebration in October 2008.

In addition, technical assistance was also extended to the Nursery Management Group of Brgys. Marga, Capayahan and San Isidro, in partnership with Alterdev, an NGO with a reforestation project in the area.

Community Programs

In line with PMC's focus on community development, projects in Surigao are also being implemented utilizing PMC's method of "counterparting." Thus, the local community serves as an implementation partner of the company.

The granting of educational scholarships is a continuing program of PMC. In school year 2008-2009, the program benefited 71 elementary and high school scholars, among them 31 students from the IP community. PMC provided the students with uniforms, bags, shoes, school supplies and other requirements stipulated by the school throughout the school year. The IP scholars also received additional materials for their basic personal hygiene.

PMC also provided assistance to other educational programs and projects such as annual science fairs, computer literacy training, and volunteer teacher sponsorships for the various schools in the community.

In 2008, PMC supported several infrastructure projects through its counterparting scheme, whereby the company and the community shared responsibility for and ownership of the projects. Some of these projects were as follows: 1) the improvement of the water system in Sitio Mahucdam; 2) the fencing of the school and the lighting of the street in Brgy. San Isidro; 3) the repair of the irrigation dam in Brgy. Motorpool; 4) the renovation of the health center in Brgy. Capayahan; and 5) the renovation of the Roman Catholic and Iglesia Filipina Independiente chapels in Brgy. Capayahan and Brgy. San Isidro, respectively.

PMC has conducted a number of capability building and leadership training seminars for various People's Organizations (POs), farmers groups, the San Isidro Capayahan Timamana Livelihood Association (SICATILA) rice retailing group and the Mamanwa Tribal Council, as part of its strategy to strengthen the organizational management of local partner groups. The trainings were geared toward partnership building.

The Vocational Course Scholarship Program is the latest addition to the SMMCI's community development initiatives. The company had 22 scholars enrolled in auto servicing and welding at a TESDA accredited school. With the support of all the parties involved in the agreement, all the scholars completed the said course and acquired the corresponding Philippine certification from TESDA. This certification is equivalent to a professional course, thus the scholars were recognized as legitimate professionals and were qualified to apply for jobs locally and overseas.

Community Programs for the IP

The Community Development Program for the IP (the Mamanwa tribe, in particular) was launched in 2008. In line with this program, PMC sponsored the schooling of the IP volunteer teacher-organizer, whose primary task was to educate, organize, motivate and capacitate the tribal council. The teacher-organizer regularly immerses and integrates herself with the IP community in Barangay Motorpool.

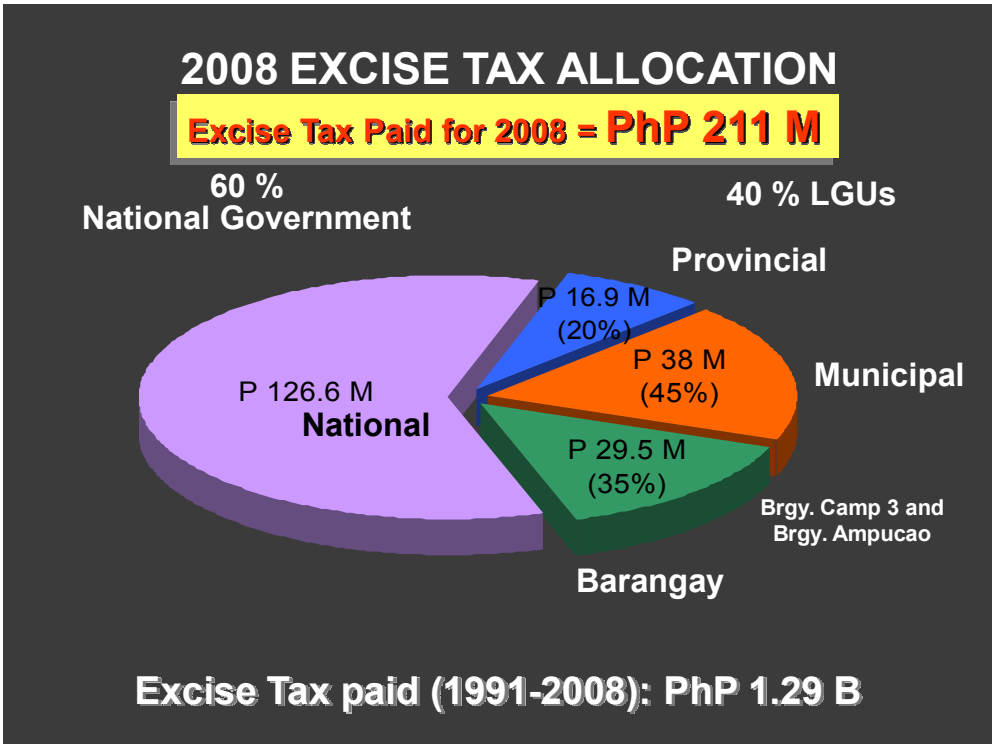
Other forms of assistance extended to the tribe were an educational scholarship program, the purchase of a one-hectare resettlement site in Barangay Timamana, the provision of vegetable seeds for backyard gardening, the conduct of leadership skills and capability building training for tribal council members and family heads, and the provision of sports facilities for the community.

Operations in Benguet (Padcal)

Background

The company's first mining operation was the Padcal copper mine, which had gold and silver by-products. The mine is located in the municipality of Tuba, Province of Benguet, about 17 aerial kilometers from Baguio City. Mining operations commenced in 1958, and continue to date. PMC reported that the projected operating life of its Padcal mine in Benguet province has been extended by another three years, from the previously declared 2014 to 2017, based on the proved reserves of the mine as of 30 June 2009.

In 2008, PMC contributed PhP269.4 million in direct taxes and PhP65.2 million in indirect taxes. This is aside from the required social development program as stipulated in the PMA, which the company's spending exceeds the required 1% of milling and mining cost for the Padcal site. For its operation in Padcal from 1956-2008, PMC has contributed a total of PhP10.11 billion in taxes.



Source: PHILEX Mining Corporation

FIGURE 5: DISTRIBUTION OF EXCISE TAX (PADCAL 2008)

Aside from contributing to the economy through the payment of taxes, the company has also generated employment in the area. The total manpower of PMC as of 31 December 2009 was 2,245. Of this total, 2,137 were employed in Padcal. Meanwhile, the disposable income available to residents because of PMC led to the growth and development of other businesses in the area.

In addition, the company also assists in infrastructure development, education improvement and in addressing other social issues faced by the community through its community and environment programs.

Stakeholders and Concerns

Community

Given the length of operations of the PMC in Benguet, concerns have been raised regarding the reliance of the community on the company.

Employees

Given the length of operations of PMC in Padcal, there have been many members of the local community that has been hired by the company. Aside from the assistance given to the community, the company also considers the needs of its employees. As the mine site is in a remote area, for example, the company has been supporting a school for the children of its employees.

Local Government

As PMC is an operational mine, a considerable amount of the excise taxes it has been paying has been going to the barangay, municipal and provincial governments of Benguet. Also, as required by law, the LGU including the barangay is represented in the MMT to ensure that the company is complying with pertinent mining laws.

Regulatory Agencies

Since the Padcal mine is operational, it is subject to regular inspections by prescribed government agencies such as the local MGB and DENR offices.

Beyond Compliance: CSR Programs at the Site

As an operational mine, the Padcal site has a large budget because of the required social development and management program, which is valued at, one percent of milling and mining costs at the very least. There are also more stringent government requirements for the site including a five-year SDMP that needs to be approved by the community as well as monitoring teams insofar as environmental compliance is concerned.

Aside from complying with government requirements, the company goes beyond what is required of it by providing schools and other infrastructure needed by the host communities, even if these are valued beyond the mandated amount.

Environmental Management

The Padcal site is ISO14001 certified. It is now on its ninth cycle, showcasing the company's advocacy for responsible mining. After six years of maintaining its EMS, the company has significantly demonstrated its commitment to operate responsibly. This was shown once more during the reassessment audit by Certification International (CI) in May 2008.

About 338,868 seedlings of various tree species were planted in the reforested areas. Some 220,082 seedlings were planted on newly established plantation areas covering 130 hectares, while 118,786 assorted forest tree seedlings were planted on the existing 200 hectares of the previously established plantation areas, for enhancement purposes. To date, about 1,950 hectares have been successfully reforested with more than six million seedlings of various tree species. They are being maintained and protected throughout the year.

The company also supported and participated in the Earth Month Celebration in April 2008. Similarly, in support of President Gloria Macapagal Arroyo's "Green Philippine Highways/Green Philippines Program," PMC conducted brushing and enrichment planting at the Sta. Fe Road in Ampucao, Itogon and at the Lion's Park in Kennon Road, Baguio City, the company's adopted area. The company also donated more than 3,000 assorted seedlings to various stakeholders, such as LGUs, the DENR, schools, and the Nay-en–Taluan Small Scale Miners Association, for their respective tree planting programs.

In addition, PMC has also been actively rehabilitating the site. Tailings pond one in the Padcal site, for example, has been converted to a bamboo research plantation and a grazing site; while tailings pond two has been converted to a controlled community dumpsite.

In its Padcal site, the company spends beyond the amount stipulated by the Philippine Mining Act of 3 to 5% of milling and mining costs. (See Table below.)

Total Environmental Expense (Padcal)

	Environmental Expense (PhP)	Milling and Mining Cost (PhP)	Percentage (%)
2008	170 million	2.8 billion	6%
1967-2008	2.5 billion	45 billion	5.7% (average)

Community Development

Through its SDMP, PMC continues to be a strategic partner of its host communities toward their development. SDMP serves as a vehicle for the community to attain self-reliance and sustain its growth.

In 2008, the company spent about PhP28 million for various health, education, livelihood and public infrastructure programs. Under its health care program, the company's Sto. Niño Hospital provided basic health services to about 6,500 patients from the communities, free of charge. Four medical missions served 550 patients.

One of its flagship projects under the education program was the College and Secondary Education Scholarship program, which provided deserving and underprivileged students in the host communities the opportunity to pursue their educational goals. For school year 2007-2008, the company supported the education of 41 students from among whom six college scholars successfully finished their studies. Twenty-nine high school students also enjoyed full scholarships at the Saint Louis High School-Philex. The company likewise subsidized the education of about 280 elementary and high school students. Some of the very first students in the school funded by PMC are now supervisors at the mine site, while one of them is the resident manager for the Padcal operations.

Recently, the company participated in the Alternative Learning System (ALS) of the Department of Education to enhance the reading and writing skills of the out-of-school youth (OSY), illiterates and undergraduates. The first batch of enrollees produced 31 learners who passed the economy-wide examination and were awarded their secondary education diploma. Eighteen OSY/residents availed of the vocational scholarship offered in partnership with the Baguio School of Business and Technology College and the Philippine Institute of Mining and Quarrying.

A livelihood and employment enhancement program was also implemented with the primary aim of building self-reliant communities. Meanwhile, 84 fresh college graduates from the host and neighboring communities underwent the Work Appreciation Program to gain work experience. Technical and financial assistance was also provided to various cooperatives and livelihood associations to enhance their projects dedicated to agroforestry, greenhouse farming, root crops production and livestock-raising. These were put up in coordination with Benguet State University.

To enhance basic services, the company implemented public infrastructure programs which involved concreting an aggregate 2.95kilometers of farm-to-market roads and the construction of several water systems for the host communities. These projects paved the way for increased commerce and the delivery of basic services to the area. The company also helped put up buildings for schools, churches and other structures in partnership with the communities.

Care and Maintenance in Negros Occidental- Bulawan

Background

PGPI operated the Bulawan gold mine in the Municipality of Sipalay, Province of Negros Occidental. Bulawan commenced commercial operations in January 1996 and ceased operations in April 2002. Presently, work at the mine primarily involves reforestation and the rehabilitation of the mine areas, the maintenance of the tailings pond and erosion control. Facilities and equipment have been stored properly and are being disposed as opportunities arise. Current care and maintenance costs have substantially gone down compared to the previous years.

The company has allegedly brought about environmental degradation (i.e. water contamination) and has negatively affected the lives of the communities in the area, thereby weakening the pronouncements of local government officials with regard to the benefits derived from mining in terms of revenue and employment. PMC has denied these allegations.

Prior to the establishment of mining operations by PMC in the area, Maricalum Mining was present in Sipalay in the 1960s. Considerable mine tailings and siltation were not properly handled, thereby contaminating the rivers and changing the terrain of the community.

PMC also operated in the area for seven years, but had to close the site for economic reasons. Unlike Maricalum Mining, however, PMC closed the down the site properly, giving adequate compensation to its employees and ensuring that the facility was managed and the mined areas rehabilitated properly.[30] As a result of these moves, PMC gained the LGU's support for its exploration activities in the area.

Stakeholders and Various Concerns

The Environment

Since there are limited sources of alternative livelihood available in the area, a number of the residents have resorted to slash and burn, and illegal logging activities that have denuded many of the mountains.

The Community

The main problem in the area is livelihood. When PMC was operating the mine, for instance, it employed up to 3,000 people so that when the mine ceased operations, so did several businesses located close by for the simple reason that with many people losing their source of livelihood, the number of customers with purchasing power correspondingly dwindled. Currently, PMC is conducting explorations in the area, and while this translates to revenue for the area, it may just lead to another boom and bust cycle once the mine ceases operations, as what happened in 2002 when PMC's operations stopped.

NGOs

There are active NGOs based in Kabankalan, a town two hours away from the host municipality of Sipalay. These groups continuously visit the host communities of PMC to convince the people of the negative impact of mining.

The LGU

One of the concerns of the LGU has to do with the distribution of government revenue. The bulk of the taxes are paid at the head office which is in Metro Manila, even if the affected area is the municipality. Furthermore, in terms of local distribution, the provincial government gets the bulk and only a small portion goes to the host community.

CSR Programs at the Site

Although the mine site is not operational, PMC's rehabilitation and reforestation efforts continue beyond what the government requires. While the company still supports the requests of the community in terms of community programs, these are prioritized according to the resources available. Furthermore, since active exploration is ongoing in the area, PMC has community relations employees who regularly immerse themselves in the community in order that the company would have a better understanding of the issues faced by the community. This also allows the company to monitor the activities of anti-mining groups so it could explain its side to the community.

Environmental Management

In 2008, PGPI-Bulawan established additional nine hectares of plantation areas for jatropha and acacia mangium. Thus far, 25,000 seedlings produced from the in-house nursery have been planted. To date, as well, 442 hectares within and around the mine site reforested by the company have a survival rate of 92%. These accomplishments merited for PGPI-

Bulawan the 2nd Runner-up Award in the "Best Mining Forest" contest and a Special Award from the MGB during the Adopt-a-Mining Forest competition in 2008. Due to the efforts of PMC, the forest in the claim area of PMC has been protected from illegal loggers and coal makers.[31]

Maintenance of facilities for the environmental management program under the Philex-Bulawan care and maintenance activities includes regular monitoring of tailing ponds, existing silt ponds, spillways and canals within the mine site. Regular repairs and maintenance of existing access roads within the mine industrial areas are also being done.

To ensure compliance with environmental laws, inspection and evaluation are regularly being conducted by the MMT in the active and post-drilling areas, as well as in the mine industrial areas, including those under the PGPI-Bulawan Care and Maintenance group.

Community Development

Through a multi-sectoral collaboration between PGPI, the private sector and the municipal and barangay LGUs, a medical and dental mission was successfully conducted in July 2008. The mission benefited 2,165 patients from the three host barangays (Nabulao, Bacuyangan and Talacagay). Exactly 1,757 patients availed of free medical consultations, while 408 underwent dental procedures, particularly tooth extraction. The patient beneficiaries composed mostly of children and elders likewise took advantage of the free medicines provided by PGPI from donations by other agencies. Aside from the medical and dental mission, PGPI also put up a series of supplementary vitamin-feeding programs for 140 students of three elementary schools located in the host communities.

In coordination with Philippine Business for Social Progress (PBSP), United Laboratories, Inc., Pascual Laboratories, Inc. and Mercury Drugstore, PMC distributed free medicines to patient beneficiaries in the local community.

Through the Continuous Information, Education and Communication (IEC) program, PGPI is able to provide the local communities with up-to-date information on its projects. The IEC program includes community immersions, focused group discussions, house-to-house visits, formal/informal meetings with local organizations, consultations as well as sit-ins during municipal and barangay regular sessions, and participation in the weekly local radio program "Radyo Natin Hinobaan." PGPI uses these channels to clarify and address issues and concerns regarding mining and its impact on the community.

PGPI-Bulawan has actively participated in the infrastructure projects of the local community through the counterparting scheme. Under this scheme, PGPI provides assistance in the form of construction materials, while the LGUs and the local community provide labor and handle the implementation aspect of the project(s). Some of the major infrastructure projects implemented in 2008 were the following: 1) the repair of the drainage canal in Sitio Village, located in Nabulao, Sipalay City; 2) the construction of the Binucauan spillway in Brgy. Manlucahoc, Sipalay City; 3) the construction of the water intake box and the improvement of the water system in Skid 4 and Skid 8 in Sitio Vista Alegre, which benefited 14 families in the area as well as Vista Alegre Elementary School; 4) the renovation of the weighing post/ the multipurpose building in Sitio Vista Alegre; 5) the rehabilitation of the access road in Sitio Sangke; and 6) the construction of the teachers' cottage at Vista Alegre Elementary School.

ANALYSIS AND CONCLUSION

PMC implements different initiatives for the community and the environment in the different sites, based on the needs of the community where it operates. In implementing CSR programs, the company takes into consideration the stakeholders and their needs. It is also aware of the need to take note of the issues that it will face in each area, as these can affect the way the company would need to work with the community.

The Importance of Leadership in Implementing CSR Activities

According to Francisco, top management strongly supports the company's CSR activities. The involvement of the top management in implementing CSR is important because top management makes the major decisions and its approval is needed for CSR programs, especially those that require large budgets. After all, even if one had the best people on the ground and the best programs as well, in the absence of support from the top management, these CSR programs could easily be forgone for profit-generating activities.

That the President and the Chief Operating Officer put a premium on the company's CSR activities is attested to by the fact that they themselves and other members of top management visit the host communities to gain better understanding of the issues faced by the community and to find out if the community has any problems with the company. The people are often surprised when they find out that they are actually talking to the President of the PMC—occasions that reflect how deeply embedded CSR is in the company. This practice of top management allows PMC to establish better rapport with the community because the people feel a sense of importance when they realize that no less than the company's top people talk to them.

Going Beyond Mandated CSR

PMC spends beyond what is mandated by law in terms of investments in the environment and the community. To begin with, the mining industry is unique because CSR is mandated by law. Regardless of the economic slowdown, therefore, PMC was required (for its Padcal site) to allocate at least 1% of its milling and mining cost to SDMP. Those that could be considered part of the SDMP were infrastructure such as school buildings, water systems and roads.

For its Padcal site, PMC has two types of stakeholders: the external stakeholders in the person of the host community and the internal stakeholders, namely the employees. The company provides free elementary education and subsidized education to the host community. It likewise provides the same to the children of its employees in addition to implementing programs on health, education, sports and the environment.

During the exploration stage, PMC was not required to implement community development programs; but, from the outset, the company ensured its involvement in the community. It has become a policy of PMC, as well, to confirm whether the community is agreeable to the project and well-informed about it, prior to launching the project. For this reason, PMC requires ECRD to enter the exploration site prior to the entry of the exploration team. Any action that the exploration team needs to do (e.g., drill at a different site) is coordinated with the ECRD to ensure that the community is informed. This step has been crucial to gaining establishing the cooperation of the people. Despite its limited budget and given that exploration projects require huge investments with no guaranteed returns, the company also assists the community financially, even if the law does not mandate it.

In line with its commitment to protect the environment and promote community development, the company's total environmental expenses for the year of 2008 reached PhP170 million, bringing the company's expenditures on this item, from 1967 to 2008 to PhP2.5 billion. The company and its subsidiaries have been consistent winners in environmental contests. Awards won in the last three years include the following: for Padcal mine, Best Mining Forest 1st runner-up in 2009, and champion in 2007 and 2008; for Bulawan, Best Mining Forest champion in 2009, and 1st runner-up in 2007 and 2008; and for Sibutad, 2nd runner-up in the same category from 2006 to 2008.

The Importance of Partnerships: Counterparting

From the identification of priority projects on to the implementation of community and environmental programs, PMC believes in sharing accountability, responsibilities and resources. The company considers it important to ensure that the community does not become reliant on the company. Also, the company wants to ensure that it does not take over the role of the government as the main provider of public goods to the community.

In the prioritization of projects for the local community, PMC's community relations officers spend considerable time talking to the people and government officials in order to determine what the needs of the community are.

In terms of implementation, when the community asks for something (e.g., a daycare center) the company sees to it that the responsibility is not solely its own. Labor, for example, has to be provided by the members of the community; the materials and equipment by the company; and the maintenance of the facility and the salary of its employees, by the local government.

Community Immersion: Understanding the Needs of the Community

PMC believes in the importance of understanding the community where it operates. It does not consider it enough that the company's community relations employees talk to the members of the community. Rather, PMC also considers it crucial for community relations officers to spend time in the host communities so that they gain better understanding of the community and the factors that can affect the community (e.g, anti-mining organizations or insurgent groups).

All members of the community relations team per site are required to spend at least three days a week in the different host communities, for them to understand the needs of these communities. This practice also helps the company manage the risks. For example, before anti-mining protests or barricades can take place, the community is informed and can take preventive measures to minimize the impact of these protests. If the company, on the other hand, finds out early that a mine tailings spill is about to give rise to the setting up of barricades, then the company can immediately prepare an explanation to present to the community, clarifying if it were true or not.

Taking the Operating Environment into Consideration

Every area where the company operates has different stakeholders and issues that need to be considered. The CSR framework serves as a guide for the company's CSR programs, but for the sake of implementation, it is important that the company is responsive to its specific environment.

EXHIBIT 1: LOCATION OF PMC MINE SITES

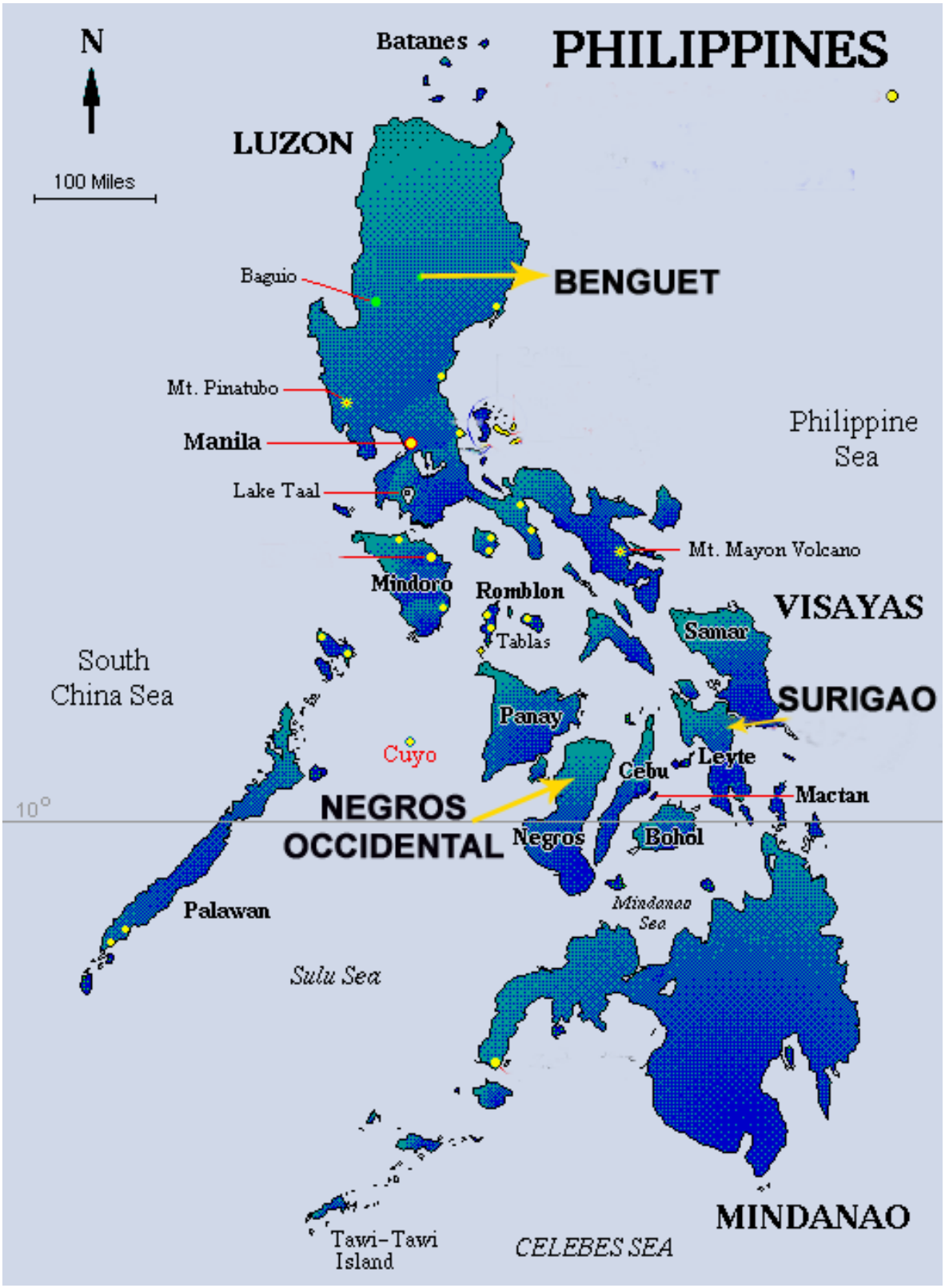
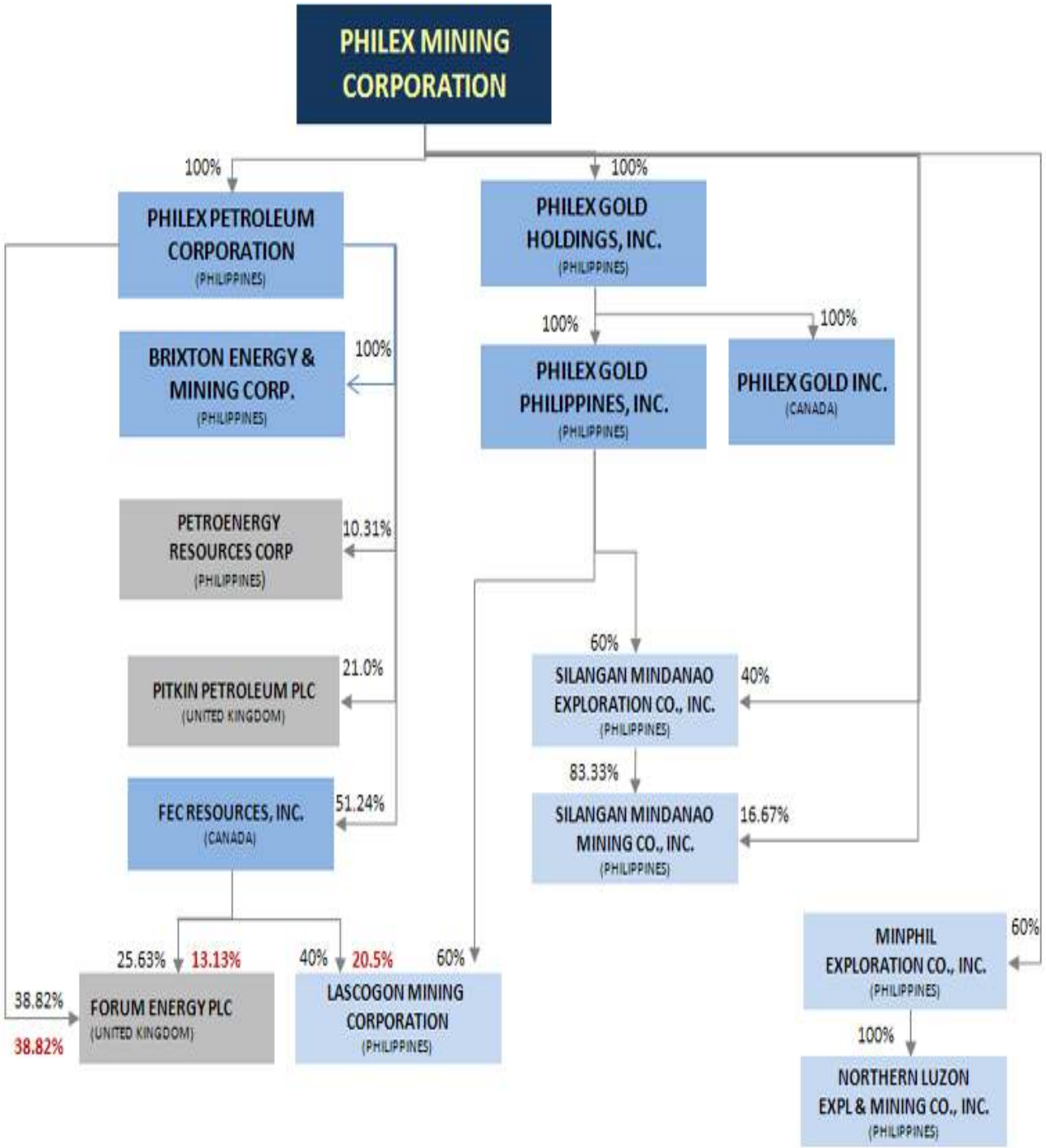


EXHIBIT 2: OWNERSHIP STRUCTURE OF PHILEX MINING CORPORATION AND ITS SUBSIDIARIES

(As of 15 December 2010)



Source: Philex Mining Corporation

Endnotes

[1] Victor Francisco and Cecile Amihan-Bayas, interview by the author, 2009.
[2] Victor Francisco, interview by the author, 2009.
[3] Ibid.
[4] Vicente Servidad, interview by the author, 2010.
[5] Philex Mining Corporation, *Securities and Exchange Commission Form 17-A Annual Report* Retrived from <http://www.philexmining.com.>
[6] Official Website of Philex Mining Corporation <http://www.philexmining.com>
[7] Official Website of Philex Mining Corporation <http://www.philexmining.com>
[8] Ibid.
[9] Senate Economic Planning Office, "Extracting Growth from Mining", *Senate Economic Planning Office: Policy Insights PI-06-0*5, November 2005.
[10] Angelo Reyes, "Mining: Flagship Industry on the Philippines" (speech, International Convention, Trade Show & Investors Exchange, Toronto, Canada, March 7, 2006. <http://www.mgb.gov.ph/presentations/2006-0317pdac.htm.>
[11] Under the DENR, MGB is directly in charge of the administration and disposition of the economy's mineral lands and mineral resources. Moreover, it recommends to the DENR Secretary the granting of Mineral Agreements and endorses to the DENR Secretary, for approval by the President, the granting of Financial or Technical Assistance Agreements (FTAA).
[12] Under the DENR, EMB, headed by the Director and the Assistant Director, advises the DENR Secretary on matters relating to environmental management, conservation, and pollution control. It also recommends legislation, formulates environment quality standards, and recommends rules and regulations for environmental impact assessments. It similarly provides technical assistance for implementation and monitoring purposes.
[13] The PAB, a quasi-judicial body under the EMB of the DENR, oversees the adjudication of pollution cases. It is composed of the Secretary as Chairman, two (2) Undersecretaries as may be designated by the Secretary, the Director of EMB, and three (3) others designated by the Secretary as members.
[14] Philippine Mining Act.
[15] Victor Francisco, interview by the author, 2009.
[16] Ibid.
[17] Ibid.
[18] Victor Francisco, interview by the author; Cecile Amihan-Bayas, interview by the author, 2009
[19] Community Relations Officers, interview by the author, Negros Occidental, 24 February 2010.
[20] Victor Francisco, interview by the author; Cecile Amihan-Bayas, interview by the author.
[21] Colin Hubo, *Profiles of Corporate Social Responsibility Practices of Philippine Mining Firms*," Retrieved from <http://siteresources.worldbank.org/INTPSD/Resources/Philippines/phil_CSR_Case_Studies.pdf.>
[22] The MMT is a multi-sectoral group which includes local government officials, relevant government officials, company representatives and members of civil society. Its task is to conduct regular visits to the site to ensure the mine site's compliance to relevant laws.
[23] Victor Francisco, interview by the author, 2009.
[24]Rosemarie Frances and David Holmes, 25 September 2008, Manila's Philex to buy out partner Anglo American in Boyongan Copper/Gold/JV <http://www.mineweb.com/mineweb/view/mineweb/en/page504?oid=63302&sn=Detail.>
Rosemarie Frances and David Holmes, 25 September 2008, Manila's Philex to buy out partner Anglo American in Boyongan Copper/Gold/JV
[25] Cecil Amihan-Bayas, interview by the author, 2009.
[26] FESS, *Environmental Safeguards and Community Benefits in Mining: Recent Lessons from the Philippines* (2006).
[27] C. Hubo, *Silangan Mindanao Exploration Company's CSR* Practices Cecil Amihan-Bayas, interview by the author, 2009.
[28] Cecil Amihan-Bayas, interview by the author, 2009
[29] Community Development is now required under DAO No. 2010-13. However, PMC had been implementing development projects during the exploration stage even prior to the issuance of DAO No. 2010-13.

[30] DENR CENRO Panthaleon and Mayor Oscar Monticillo of Sipalay City, interview by the author; Sipalay, Bacolod, 2010
[31] DENR CENRO Panthaleon, interview by the author, Sipalay, Bacolod, 2010.

AUSTRALIA ECONOMY REPORT

Australia is one of the fastest growing economies and has one of the most highly developed mining industries in the world. The technological innovations and advancements in the mining sector worldwide are attributed mainly to Australian mining firms.

Australia has abundant and diverse natural resources. It has extensive reserves of bauxite, alumina, copper, gold, iron ore, lead, manganese, natural gas, uranium and renewable energy sources. The economy's mining sector, which started out as a small and localized one, evolved into one of the most important sectors in the economy over the years, contributing some US$ 500 billion to Australia's wealth in the past 20 years. During the period 2003-2004, it accounted for 8.5% of Australia's GDP.

Several challenges currently confront Australia's mining sector. The first challenge involves the overall landscape and availability of resources in Australia, where majority of the high grade materials have already been mined, leaving behind low grade materials The concern among mining firms therefore is to ensure the sustainability of the sector amidst the rising cost of exploration and production, lower global demand, and increasing metal prices.

The second challenge is the implementation of the guidelines set forth by the different mining organizations particularly with regard to the rehabilitation of mines for the sake of safety and environmental sustainability. The sector is now confronted by a prevalence of abandoned mines, as well as the decommissioning and closure of old mine sites. The Minerals Council of Australia has set procedures and guidelines for the mining firms' formulation and implementation of specific strategies per stage of the mine life cycle.

The third challenge has to do with Australia's role as a major global supplier of mineral resources. Numerous Australian firms are operating globally and play a key role in the growth and development of their host countries. There have been instances when Australian mining firms were accused of environmental irregularities, particularly in their operations in developing countries. In addition, some of the minerals extracted in and exported from Australia pose a significant threat to global security. Uranium, for instance, is used to fuel nuclear power plants and there is currently a high demand for it. Australia has thus implemented certain guidelines to ensure that the uranium it mines and exports would only be used for peaceful means, and that the mineral's transport and delivery adhere to strict environmental and security standards.

The fourth challenge involves the variance between sustainable mining framework initiatives and responsible mining. Even as mining firms have begun to incorporate sustainable mining initiatives, they have been on the receiving end of numerous criticisms because of their use of the word "sustainable," given the fact that mineral resources are finite. Another issue is sustainability reporting. As most of such are done voluntarily, some questions arise as to accuracy. Finally, the lack of ethical, social and cultural standards metrics in sustainability reports has to be taken into consideration. Often, these reports focus on the environmental and economic benefits of mining, but neglect the impacts of mining operations on society.

This case study was written by Ryan Vincent Uy based on published and secondary materials. Ryan is a graduate of Bachelor of Arts in Humanities with a Professional Certificate degree from the University of Asia and the Pacific. He gained more than five years of professional research experience at the RVR Center for Corporate Social Responsibility. His research interests include corporate governance and corruption, corporate social responsibility, and rural and urban development management.

Lastly, the Australian Federal State and the Local Territories have enacted numerous codes on the operations of mining firms, which help regulate the industry and ensure the mitigation of the negative impacts of mining, while maximizing the overall benefits. Every legislation passed can be classified into the following types: 1) state/territory mining industry legislation; 2) environmental protection legislation; 3) native vegetation legislation: 4) rights and native title regulation; 5) aboriginal heritage legislation; 6) water legislation; and 7) planning legislation.

BASIC STATISTICS ABOUT THE AUSTRALIAN MINING SECTOR

The Australian mining and minerals processing sector:[1]

- has contributed over US$600 billion directly to Australia's wealth over the past 20 years;
- is among the top five producers of most of the world's key minerals commodities, as follows:
  - the world's leading producer of bauxite, alumina, rutile, ilmenite, zircon and tantalum;
  - the second largest producer of, uranium, lead, zinc and lithium;
  - the third largest producer of gold, diamonds, iron ore, manganese, nickel and niobium;
  - the fourth largest producer of black coal and silver; and
  - the fifth largest producer of aluminium, brown coal and copper.
- directly and indirectly employs some 320,000 Australians, many of whom are stationed in the sparsely populated, remote and regional portions of Australia; and
- is responsible for significant infrastructure development – since 1967, the industry has built 26 towns, 12 ports and additional port bulk handling infrastructure in many existing ports, 25 airfields and over 2,000 kilometers of railway lines.

FUNDAMENTAL INFLUENCES: Geography, Geology and History (See Exhibit 1.)

There are 32 minerals mined in Australia, where most of which were mined in Western Australia and NSW. The minerals and metals mined in Australia are antimony, bauxite, black coal (in situ and recoverable), cadmium, cobalt, copper, chromium, diamond (gem and near gem and industrial), fluorine, gold, iron ore, lead lithium, magnesite, manganese ore, mineral sands (ilemenite, rutile, and zircon), molybdenum, nickel, niobium, phosphate rock, PGE, rare earths, shale oil, silver, tantalum, thorium, tin, tungsten, uranium, vanadium and zinc.[2] (See Exhibit 2.)

All Australian states have operating mine sites typically located in the sea borders. As of March 2010, majority of the current mine sites were in Western Australia and New South Wales, at 113 and 78 sites out of 328 sites, respectively.[3]

Mining in Australia started even before the arrival of the Europeans and continues to develop until today. Prior to the arrival of the Europeans, Australian Aborigines had already begun to mine the land for stones used for hunting and gathering, and ochre used for art and religious practice.[4] Quarries and processing sites were thus developed due to the increased demand for stones and ochre. As a result, transport routes were established.

Operations in most major Aboriginal mines appear to have ceased no later than 50 years ago, although deposits of ochre are still being used for use in art and ceremonies. There are 416 recorded Aboriginal mine sites in eastern Australia (Queensland, NSW, Victoria), although new sites are being identified all the time. In NSW there are 183 identified sites (144 stone quarries and 17 ochre mines, with no information beyond location available for the remaining 22).

During the 18th century, small to medium scale mining operations began with the discovery of coal. This was followed by the discovery of gold in Western Australia that led to the gold rush period. An important development during this era was the creation of a new town due to the rapid growth of the mining industry.

Gold was first discovered in New South Wales in 1823. By the 1850s, the gold rushes made the Australian colonies world-famous for mining. The Victorian gold rush had a major lasting impact on the state and on Australia as a whole. Around that time, Australia was producing almost 40% of the world's gold, effectively spurring its transition from an agricultural and pastoral economy toward industries that supplied the machinery and transport facilities needed by the mines. The service industries thereafter expanded to cater to the growing population due to the influx of migrant workers.[5]

In 1872, tin mining began in Inverell, New South Wales, Mount Bischoff, Tasmania and Stanthorpe, Queensland. Base metals were also discovered, leading to the development of other industries such as steel in Newcastle in 1915. As a result of these developments, Australia became the number one producer and source of tin in the world.[6]

In 1839, hydrocarbons (a form of crude bitumen) were discovered. In 1882, the first well drilled specifically for petroleum was put down in South Australia. While the mining industry continued to prosper in the early years of the 20th century, it was severely affected by the collapse of metal prices after the end of World War I (1918). As a result, mineral exports fell from US$15.3 million in the period between 1919 and 1920, to US$7.6 million between 1921 and 1922.

Initially, coal was the major export of Australia; however, increased competition and the depression from 1920 to 1940 led to its decline. At that time, petroleum began to replace coal in industry and railways.

The 1950s to the 1970s saw the emergence of the Australian mining industry, which was characterized by the discovery of major new base metals, iron, manganese, nickel and uranium; and the establishment of Australia's petroleum industry. The period also saw the expansion and growth of production and exports. By 1960, Australia was a world force in black coal, bauxite, iron ore, nickel, manganese, titanium, zirconium and uranium.

One of the reasons for the surge in discoveries in Australia was the increase in knowledge on geology, the establishment of the Bureau of Mineral Resources (1946) and the increase in surveys on mineral resources, all of which helped establish the mining industry. Aside from these new developments in the sector, political stability also led to the influx of foreign mining companies that sparked an increase in exploration and expenditure, thereby facilitating the dawning of new expertise and ideas.

Before the 1960s, there was not enough supply of petroleum for commercial production in Australia. Then, in the 1960s, the discovery of Australia's first economic accumulation of petroleum took place. Since then, petroleum has become Australia's major mineral product in terms of value production. The increased importance of petroleum and other related products has led government to adopt several measures to encourage petroleum exploration and provide subsidy for specific operations.

The Commonwealth Petroleum Search Subsidy Act of 1957 helped encourage overseas companies, as well as local ones, to explore the economy's onshore and offshore sedimentary basins.[7] Australia's discovery of its first commercial oil field in Moonie, Queensland in 1961 led to the discovery of oil in Western Australia, and gas fields in Barracouta and the Gippsland shelf. All these discoveries allowed Australia to become a major source of oil and gas.

The oil shocks of 1973 and 1979 changed the industry's view on the mining of oil. With oil prices increasing several fold, expenditures on oil exploration spiked from US$49 million (1976) to US$948 million (1982). Alongside this development, awareness of the need for environmental protection, and to secure and obtain the consent of the Aboriginal owners before their land could be explored and mined, emerged.

In 1975, the Olympic Dam Copper-Gold-Uranium Mine containing one of the world's largest deposits of uranium was discovered. By the 1980s, the public's growing awareness of environmental issues also increased government's control of discharge mining waste and pollution. Today, aside from the rehabilitation of mined out areas, either through their reshaping or re-vegetation, also required is an environmental impact assessment.[8] Meanwhile, the gold boom in the 1980s led to the development of 24 new gold mines.

Various measures were initiated in the new mines located in the remote regions of Australia. One was the adoption of fly-in/fly-out arrangements to service mining operations, rather than the construction of new mining townships. This innovation led to the creation of a higher quality workforce, management's gaining control of the shifts or the start-times of employees, and reduced absenteeism compared to many town-based mining operations.

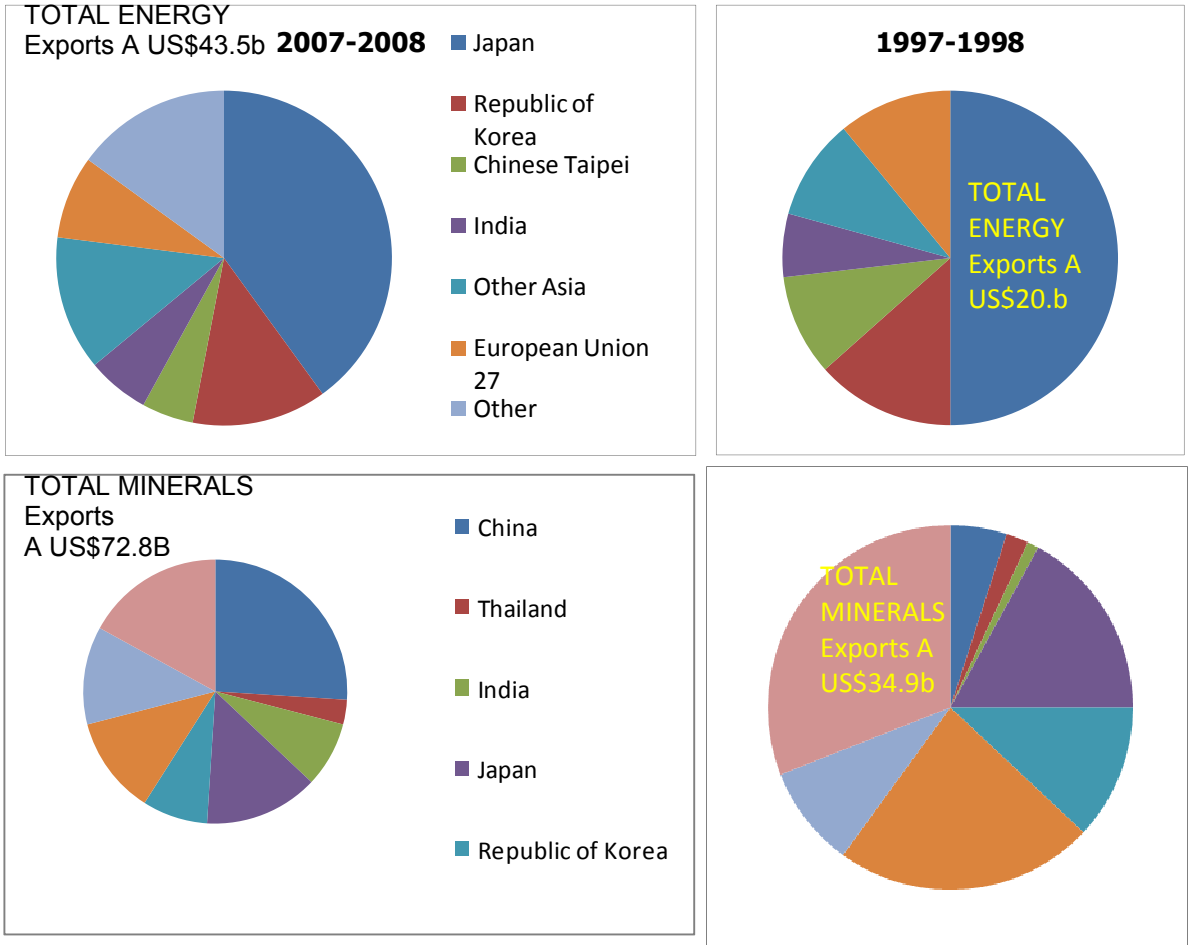
In the 1990s the Australian Government and the Indonesian government signed the Timor Gap Treaty that allowed the joint exploration of petroleum. In 1992, the High Court of Australia held that the common law of Australia recognized a form of native land title. Two years later, substantive provisions of the Native Land Titles Act 1993 led to the commencement of operations, followed by comprehensive package amendments in 1998.

In 1996, the Australian Mineral Industry issued the voluntary code for environmental management. This was followed by the Federal Government's release of the Minerals and Petroleum Resources Policy Statement. In 2000, the ten-year Economy Geoscience Mapping Accord produced a new generation of geo-scientific maps and datasets on strategically important areas.

A clear and important part of Australia's history is the series of mining booms, with the more recent booms of the last few decades providing significant economic returns. Minor variations in annual production were attributed to the economic conditions prevailing at the time of their occurrence and were considered to be impacts of the growing social awareness.

THE MINING INDUSTRY IN AUSTRALIA: ITS SIZE, IMPACT AND RELEVANCE

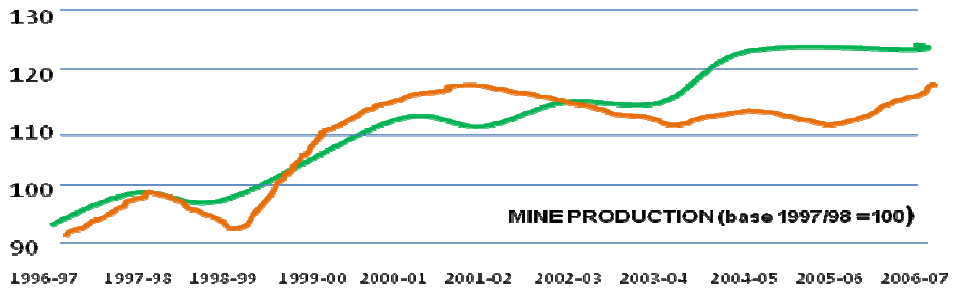
The Australian mining industry is one of the leading in the world. After the US and South Africa, Australia is the third largest mineral producer by value of production. It is the top producer of bauxite, alumina, diamonds (by volume), ilmenite, rutile and zircon. It also is the second largest producer of zinc ore (after China) and the third largest producer of iron ore (after China and Brazil), nickel (after the Russian Federation and Canada) and gold (after South Africa and the US). It is the fifth largest producer of aluminium and coal. Currently, Australia is the largest producer of low-cost uranium. As of March 2010, total mineral export was around US$30.2 billion. For the past 10 years, Australia has primarily been exporting its minerals and energy products to China and Japan, respectively.



Source: Minerals Council of Australia. (July 2009). "The Australian Minerals Industry and the Australian Economy."

FIGURE 1: AUSTRALIA'S MINERAL AND ENERGY EXPORTS IN THE PERIODS 1997-1998 AND 2007-2008

From 1996 to 2008, there was a steady increase in the production of metal and non-metal resources, signifying the total capacity of Australia in terms of resources and highlighting the increase in business experienced by the local mining firms. Amidst the current slowdown in the global economy, the Australia mining sector remained stable.



Source: ABARE, Australian Mineral Statistics (March Quarter 2008)

FIGURE 2: MINE PRODUCTION INDEX IN AUSTRALIA

There are major resources available in Australia. (See Table 1.) It likewise indicates the amount of minerals produced and the percentage of minerals exported. Coal and iron remain the top mineral exports of Australia.

TABLE 1: MAJOR MINERALS PRODUCED AND EXPORTED

Minerals (from Mining) 2007-2008	**Production '000t**	**Exports US$A billion**
Bauxite	64,900	0.202
Alumina	19,537	6.379
Copper	901	5.452
Gold	0.2192	17.516
Iron Ore	339,400	33.670
Lead	608	0.545
Manganese	3923	1.394
Nickel	177	2.283
Silver	1,794	0.252
Mineral sands	3595	1.113
Zinc	1381	1.979
Coal thermal	201,000	17.589
Coal metallurgical	124,200	34.464
Uranium	10,130	0.903

Minerals Processed	**Production '000t**	**Exports US$A billion**
Smelting and Refining		
Alumina	19,527	6.379
Aluminium	1956	4.914
Refined Copper	494	2.154
Lead bullion	156	0.376
Refined led	207	0.479
Refined Zinc	495	0.925
Refined Nickel	105	Exports Receipts in Nickel mining revenue
Refine Silver	0.702	0.252
Synthetic Rutile	741	0.258

Source: Mineral Council of Australia. (July 2009). "The Australian Minerals Industry and the Australian Economy."

The minerals studied in this report generally show that they have been maintained at reasonable resources-to-production ratios throughout the 20th century. For some minerals, periods of major exploration, discovery and development facilitated the initiation of extensive projects (e.g., the Pilbara iron ore, the Darling Ranges bauxite-alumina). As for the other minerals, the broad-ranging success in the Greenfields and Brownfields explorations has led to gradual increases in known economic resources (especially gold and copper).

TABLE 2:
2007 ECONOMIC RESOURCES, PRODUCTION AND RESOURCES-PRODUCTION RATIO

Mineral	2007 Production	Economic Resources	Resources-to-Production (yrs)
Bauxite	62.40 Mt	6,200 Mt	99
Black Coal	420.1 Mt	38,900 Mt	93
Brown Coal	65.61 Mt	37,300 Mt	569
Copper	880 kt	59.3 mt	67
Diamonds	19.22 Mcarats	425 Mcarats	16
Gold	254.04 t	5,839 t	23.8
Ilmenite	2.24 Mt	221	99
Iron Ore	271.0 Mt	20,300 Mt	75
Manganese Ore	4.35 Mt	164 Mt	38
Lead	636 kt	23.3 Mt	37
Nickel	184 kt	25.8 Mt	140
Rutile	312 kt	23.1 Mt	74
Uranium	10.15 kt	1.465 Mt	144
Zinc	1,421 kt	42.5 Mt	30
Zircon	600 kt	39.0 Mt	65

Source: Minerals Council of Australia. (July 2008). "The Australian Minerals Industry and the Australian Economy."

Most minerals, in general, have a century's worth of economic resources to production reserves. This assumption is clearly unrealistic, given the long-term trends of rising production for almost all minerals studied in this report. For some metals such as copper and gold, the ongoing exploration continues to lead to major increases in economic resources over time.[9]

Investments continue to pour into Australia's mining industry, while Australian firms expand overseas. The Australian Bureau of Agricultural and Resource Economics reported that between November and April 2008, there were 22 major minerals and energy projects with capital expenditures of US$10.8 billion. Investments were made either to expand production of and export capacity for coal, petroleum, iron ore, gold, mineral sand, nickel, copper and zinc. Overall, there were 51 advanced projects worth US$67 billion and a further 347 less advanced projects worth US$220 billion in Australia. Spending on exploration reached a record US$5.5 billion between 2007 and 2008. [10]

In 2009, investments doubled, with the 18 major minerals and energy projects "completed" between November and April 2009 valued at US$5.2 billion. The projected expenditure for the 74 "advanced" (committed or under construction) projects was US$80 billion. These investments resulted to the increased production and export capacity for coal, petroleum, iron ore, gold, minerals sands, nickel, copper and zinc.

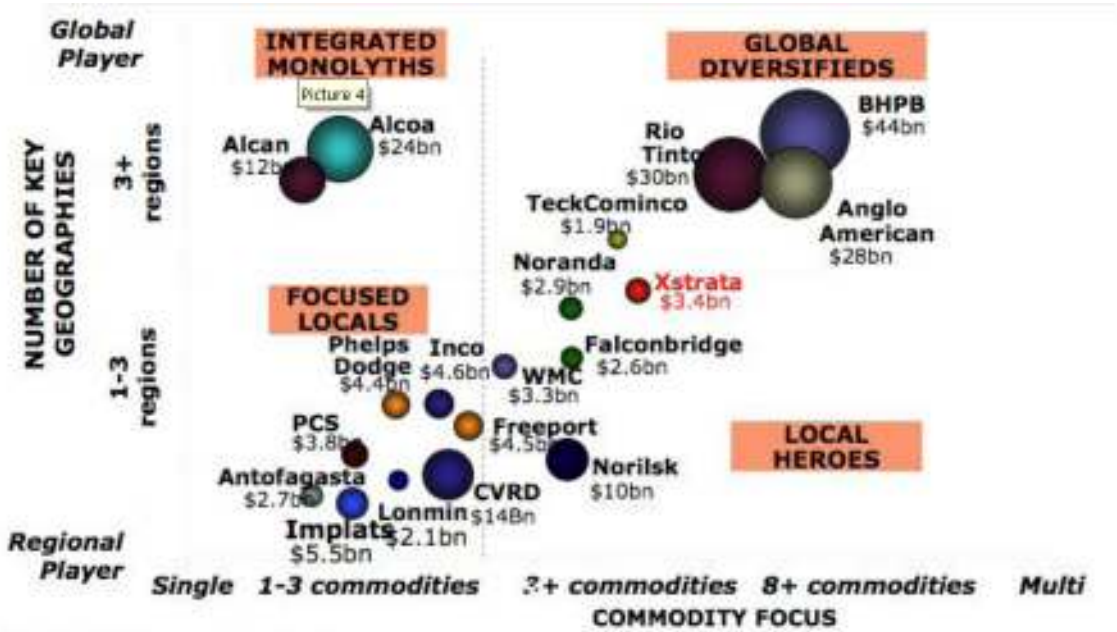
The bureau's report also tackled the 247 "less advanced" projects for whose development no definite decision had been taken, following the completion of a feasibility study. For these projects, however, expenditure was estimated at US$277 billion. Spending on exploration reached a record US$5.6 billion during the period 2008-2009.[11]

To date, there are a number of registered Australian mining companies operating within and outside Australia. In 2002, majority of the local Australian mining firms focused their operations in Australia. Majority of Australian mining firms began to expand overseas and started to play an active role in the global mining industry. Below is a chart mapping out the different mining firms operating in Australia. Note how, in 2002, there were only a handful of Australian companies that were active in the global market. Majority of the firms then were focused locally. Aside from this, there were already a number of Australian companies that had begun to shift from a regional to a global perspective. One example is Xstrata.

By 2009, there was an increase in the mergers among Australian mining firms. Mining companies such as BHP Billiton and Rio Tinto were valued at US$100 billion. Xstrata, a mid-sized company in 2002, became one of the biggest mining firms in the world. Among the reasons behind this development was the need for local Australian mining firms to be more competitive and to increase their capacity to invest in large-scale global mining. By 2009, the number of middle sized capacity mining companies had given way to globally integrated/diversified mining companies.

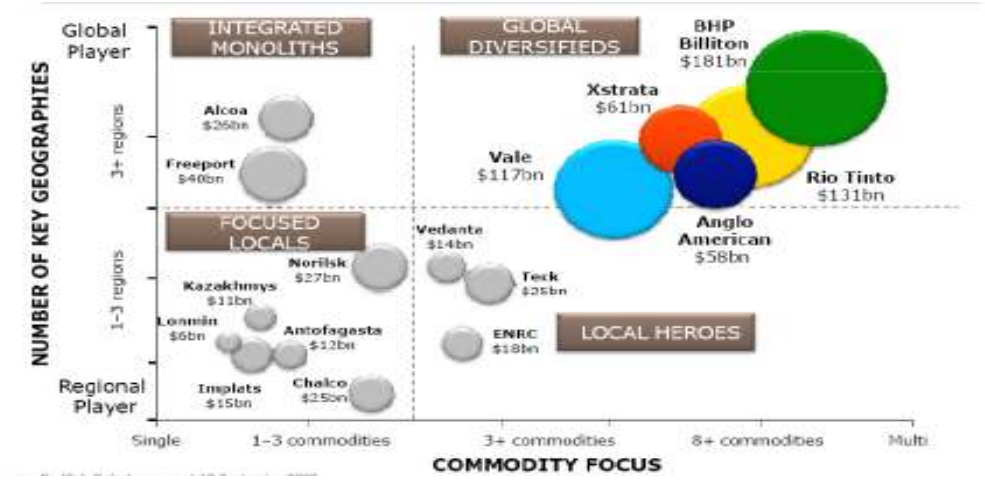
The mining sector has strongly contributed to the Australian economy and labor market. Overall, the mining sector contributed 8.5% to Australia's GDP (2003-2004) and US$500 billion directly to Australia's wealth over the past 20 years, with exports of around US$41 billion broken down into 35% total merchandise and 28% total goods and services.

The value of Australia's exports of mining technology, equipment and services was approximately US$2 billion between 2002 and 2003 (60% of mining software used globally being Australian), representing around 24% of new private capital expenditure (2003-2004). The sector has contributed to infrastructure development in Australia since 1967 through the creation and the building of 25 towns, 12 ports, 25 airfields and over 2,000 kilometers of rail lines.



Source: Mitchell H. Hooke, "Beyond the Storm – Recovery and growth for the Australian minerals technology and services industries", keynote presentation during the Austmine Conference: (Adelaide, 10 November 2009)

FIGURE 3: THE MINING AND METALS BATTLEFIELD, 2002



Source: Mitchell H. Hooke, "Beyond the Storm – Recovery and growth for the Australian minerals technology and services industries", keynote presentation during the Austmine Conference: (Adelaide, 10 November 2009)

FIGURE 4: THE GLOBAL MINING AND MINERALS INDUSTRY, 2009

In terms of employment, Australia's mining sector directly and indirectly employed some 321,000 Australians from the remote areas and regions. In terms of taxes generated, the sector accounted for total government revenue payments of US$4.6 billion (2003-2004). In terms of protecting the Indigenous peoples, the sector forged more than 350 Indigenous Land Use Agreements across 200 companies. The mining sector committed to increase Indigenous employment. Companies in the sector set targets and made significant investments in training and education, enterprise facilitation and lifestyle education.

Amounts spent on exploration (in real terms) between 1991 and 2007 are shown below. Australia's mining exploration expenditure in 2007 in real terms reached an all-time high of US$1.435 billion. This was 38% higher than the previous peak of US$1.0 billion in 1996-1997.

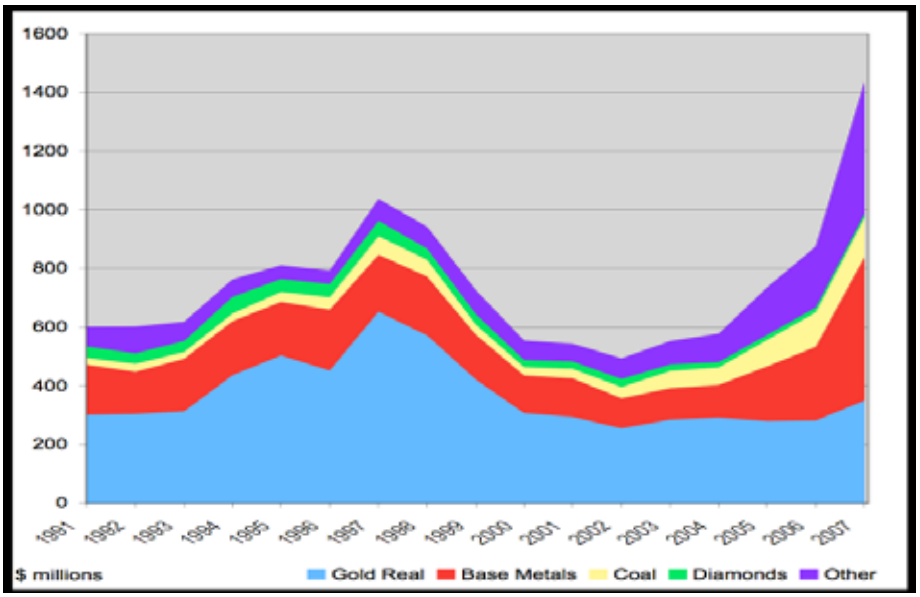


FIGURE 5: AUSTRALIAN MINING EXPLORATION EXPENDITURES (Real terms, A US$ millions, 1991 to 2007)

The overall impact of the mining sector has significantly improved the economy of Australia. This growth has also contributed to the increased demand for minerals and resources by developing countries like China. While the economic crisis has led to a decrease in demand, recent projections and estimates indicate that the industry will continue to experience growth.

BUSINESS LANDSCAPE

There is a shortage of labor supply in the mining sector. As of February 2009, there were 171,500 people employed in the Australian mining industry. In the past six years, a 56% growth in the number of workers in the sector was noted.[12]

One of the major problems of the Australian mining industry is the growing shortage of mining experts and laborers, mainly because the labor market is unable to replace the retiring workers.[13] BHP Billiton's Chief Executive, Marius Koppers, observed the massive talent gap in Australian mining. This development is expected to pose a strong impact on Western Australia, economy's largest mining state.[14] Because of this, mining firms are clamoring to find more mining experts.

It is projected that there will be a migration of laborers to the resource-laden states. In the next six years, the government of Western Australia is projecting that 240,000 jobs will be created.[15]

Since the labor market is close to full employment, another concern is the fact that other sectors in the economy need to compete with the mining sector for laborers. For these reasons, Australian firms are looking to hire workers overseas, particularly from the US and Europe. In an interview, the managing director of the information technology firm, Leadmaster, shared that:

> If we find the right person, say it's in the UK, it costs us a US$1500 airfare and a visa... In Australia it could be 10 times that. To start with it, to place an ad with a recruitment agency would cost me more than that (airfare) and then more once they start. [16]

One of the major environmental challenges for the sector is acid mine drainage. In Australian mining, one of the major environmental issues is the formation of acid mine/(rock) drainage, which has become the leading cause of water pollution in the economy. Acid production occurs when mine waste contains insufficient buffering minerals to neutralize the acid produced, as sulphide and minerals oxidize. It is virtually unavoidable when mining sulphide ores.

There are numerous abandoned mine sites in Australia. These sites have never been rehabilitated and have left major legacies of acid mine drainage impacts on the surrounding and downstream ecosystem. Below is a list of some "infamous" case studies on the issue:

- Mt Lyell – the 100Mt of tailings discharged to the Queen and King Rivers until 1994, as well as the 50 Mt of waste rock, have created perhaps Australia's most notorious environmental legacy of acid mine drainage impacts. They reach as far downstream as the marine ecosystems of Macquarie Harbour.
- Mt Morgan – poor tailings and waste rock management have created a major legacy of AMD impacts in the adjacent Dee River, with the Queensland Government now liable for the rehabilitation cost amounting to US$200 million (now most likely higher)

- Rum Jungle – a complete lack of tailings and waste rock management during operations created a major legacy of AMD impacts in the adjacent Finniss River. The Commonwealth Government, as owner of the former project, contributed about US$20 million for rehabilitation in the 1980s, but this work has not been meeting expectations. Recent evidence shows that the covers are allowing more water to infiltrate the underlying waste rock, thereby continuing the AMD cycle. Significant pollution loads still emanate from the Rum Jungle waste rock dumps.

Today, it is widely accepted that testing for acid mine drainage should be done as part of the Environmental Impact Assessment before mine development. However, there is still no agreement on the exact sampling methods to be employed. Aside from this, operational sampling is now being implemented by numerous mining companies and has become a requirement of regulatory agencies.

Increased Reporting on Sustainability, Performance and Transparency. Another important event in the global mining industry is the move to improve sustainability performance and the transparency report. The voluntary Global Reporting Initiative (GRI) of the United Nations is the principal framework being utilized to this end. Under this framework, data on social, economic, environmental and human rights performance are the key indicators.

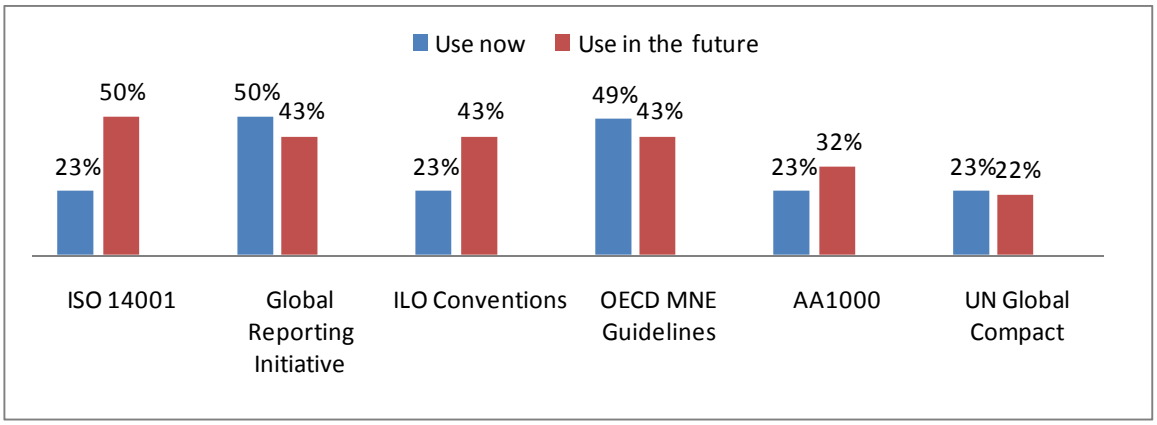


FIGURE 6: USAGE OF INTERNATIONAL FRAMEWORKS[17]

Australian companies can be considered as being among the early adopters and promoters of sustainability reporting. The Australian National Pollutant Inventory (NPI) follows the same guidelines as the Global Reporting Initiative. It tracks pollution across Australia and ensures that the community has access to information on the emission and transfer of toxic substances, which may affect it locally. To date, the NPI contains data on 93 substances that have been identified as important, due to their possible effect on human health and the environment. The data comes from facilities like mines, power stations and factories, and from other sources such as households and transport.[18]

Although both the NPI and GRI provide accurate and useful mine statistics, one criticism against them is their lack of disclosure on the amount of mine waste disposed and the impact of greenhouse emission, among others, on the environment.

Since most reporting is done on a voluntary basis, an issue raised against companies has been their being selective about the data they measure and present. Furthermore, some protocols are neither consistent nor compulsory with regard to other key aspects, such as waste rock, cyanide, water quality and quantity, which companies often neglect reporting on. For example:

> GRI leaves the proportion of recycled water (EN10) as an 'additional' indicator and not 'core' for reporting purposes. While the reporting of wastes by type and destination (EN22) is core, and is supposed to include hazardous and non-hazardous wastes, some mining companies who use the GRI still do not report waste rock under EN22. The additional GRI Mining Sector Supplement proposes wastes under EN22 as "site waste, e.g., waste oils, spent cell lining, office, canteen and camp waste, scrap steel, tyres and construction waste" (pp 27), and further discusses the need to report "large volume wastes" – waste rock/overburden and tailings – as a function of a site risk assessment.[19]

In recent years, a number of reporting protocols established and developed included the Australian which was mentioned earlier. NPI aims to facilitate and provide a more accurate assessment of pollutants and contaminants being released to the environment. One of the criticisms directed at the NPI is that it only considers elements emitted and released, but does not have a definite term or indicator to monitor waste rocks from tailings. Recently, a cyanide code was established; however, NPI does not allow for monitoring on an individual basis and does not include the item in public reporting. The common lack of waste rock and cyanide reporting does not facilitate the undertaking of an accurate sustainability assessment. Neither does it allow claims to be tested.[20]

Comparing the NPI, the GRI notes key areas where significant pollution occurs. (See Table 3.)

TABLE 3: ENVIRONMENTAL HAZARDS ASSOCIATED WITH MINING ACTIVITIES[21]

Mine Creation	Extraction	Smelting and Refining
• Deforestation and destruction of animal habitats, particularly from the process of making charcoal from wood • Use of native land and officially protected natural resources • Creation of potentially toxic waste rock	• Creation of mine waste from toxic emissions • Water table contamination from: - Tailing dam failures - Waste disposal in rivers and oceans - Deep water disposal • Acid mine drainage: sulphides in waste rock react with water to produce sulphuric acid - Linked with skin cancer and tumors, liver disease, nerve damage and growth retardation in children - Damages water supply and marine life - Considered irreversible; few treatment options exist	• Major energy consumer • Major air polluter - Primarily releases nitrogen and sulphur, the major components of smog and acid rain - Releases greenhouse gases including CO2 and perfluorinated carbons (PFCs) - Also emits lead, arsenic, cadmium and zinc - Contributes to lead poisoning, respiratory illnesses and, possibly, other diseases

Source: Lins and Elizabeth Horwitz, "Sustainability in the Mining Sector" (2007) http://www.fdbs..org.br/fbds/IMG/pdf/doc-295.pdf

Overall, Australian mining firms spent US$382 million on rehabilitation within the period 2003-2004 alone. Accumulated provisions of nearly US$3 billion for rehabilitation have been made by the sector. As a result, the Australian mining sector has an ecological footprint of less than 0.1% of Australia's land mass, which is equivalent to the combined area of the car parks of Australia's pubs. In conclusion, the challenge for all mining stakeholders is to ensure that codes and practices are updated to mitigate the impact of mining.

When the Brazilian Foundation for Sustainable Development conducted a study on the performance of selected mining companies operating in Brazil in 2007, two of the companies it chose were the Australian mining firms, Rio Tinto and BHP Billiton. The study focused on the key tenets of sustainable development, social responsibility, economic sustainability and governance. (See Table 4.) Metrics were developed to determine the level of integration in promoting these factors.

TABLE 4: SUMMARY OF KEY FINDINGS[22]

		Anglo American	BHP Billiton	PT Inco	Rio Tinto	# of Indicators
Environmental						
5.1.1	Environmental Management	5	4	3	4	6
5.1.2	Climate Change	4	5	1	5	5
5.1.3	Water Management	2	1	1	5	5
Social						
5.2.1	Worker and Community Safety	2	2	2	1	3
5.2.2	Stakeholder Engagement	9	10	8	6	11
5.2.3	HIV/AIDS Reduction	5	4	0	1	6
5.2.4	Policies for Mine Life Cycle	3	4	3	4	5
5.2.5	Human Rights	4	4	3	4	4
5.2.6	Community Development	4	1	3	5	6
5.2.7	Supply Chain Management	1	3	0	2	3
Economic/Governance						
5.3.1	Transparency and Accountability	2	2	0	4	4
5.3.2	External Performance Indicators	2	4	1	2	4
5.3.3	Specific-sector/ Global initiatives	5	5	0	4	5
Number of Satisfactory Indicators		48/67	47/67	25/64	47/67	67

Source: Lins and Elizabeth Horwitz, "Sustainability in the Mining Sector" (2007)

The findings showed that BHP Billiton scored the highest in fulfilling its commitment to sustainable development. Rio Tinto focused on community and stakeholder engagement, ensuring that company operations did not create more new mining towns or displace old ones. Overall, Australian companies scored high, reflecting the commitment and leadership strength of the Australian mining industry in sustainable development.

KEY STAKEHOLDERS AND CONCERNS

The imposition of new taxes will affect not only the bottomline of mining firms but also investor confidence. In May 2010, the central government proposed a 40% tax on profits generated by mining companies for all resources. It is a component of the government's initiative to overhaul the tax system. The money collected from the so called "super tax" will be used to address "the challenges of an ageing population and rising healthcare costs."[23] According to analysts, the increase in taxes will affect the income of major Australian mining firms. In particular, it will reduce the income of BHP Billiton by 19%,

and that of Rio Tinto by 30%. According to a BHP Billiton chief executive, “If implemented, these proposals can seriously threaten Australia’s competitiveness, jeopardize future investments, and adversely impact the future wealth and standard of living of all Australians.” [24]

The various groups’ responses to the Resource Super Profit Tax make it possible to divide them into pro and anti groups, as follows:

- Pro
    - Federal Government (Labor Party)
    - The Australian Council of Trade Unions
    - Mining unions
    - The Australian Greens
    - Various social organizations and groups
    - Various environmental organizations and groups

- Anti
    - Mining Industry: Resource and mining organizations such as Rio Tinto, BHP Billiton, Fortescue Metals and Xstrata
    - Mining lobby groups
    - Federal Opposition (Liberal Party)

Big mining firms such as Rio Tinto, BHP Billiton and Xstrata had strongly opposed the increase in taxes. They called the increase a threat to the industry because it intensified investment risk. The government meanwhile posited that the imposition of the super tax aimed to provide equity since the Australian people owned the resources; these same people would thus have a greater share of the windfall from mining.

The mining tax proposal was met by a furious multi-million dollar campaign against it by the mining companies. Appealing to fears that the tax could jeopardize mining investments and profits that might, in turn, result to job losses and increase economic instability, the campaign gained political traction, particularly in resource-based regions in Western Australia and Queensland. This led to a collapsed in support for the government. The anti-tax campaign was supported by other financial and corporate interests, which argued that the government should reduce the deficit through cuts in government spending rather than through higher taxes.

The proposal led to a political backlash, where the Prime Minister Rudd was removed from office. Deputy Prime Minister Julia Gillard was then elected unopposed as Labor Party leader, at a special meeting of the party’s parliamentary caucus. Prime Minister Gillard announced a reduction in the tax except on coal and iron companies. Consequently, the affected companies decreased in number from 2,500 to 320.[25] This incident highlighted the strength of other mining stakeholders in the political sense and in the policy decision-making process of the government.

In July 2010, the “super tax” was reduced to 30% of profits from iron ore and coal, and to 40% tax on from profits on oil and natural gas due to the potential impact of the new tax and the opposition of mining firms. In addition, “the new plan, called the mineral resource rent tax”, was also expected to “raise the tax's trigger level to profits” exceeding a 12% rate of return instead of 6%. The decrease in the tax rate was appreciated by mining firms. According to John Robinson, chairman of Global Mining Investments Ltd.: "The reduction in the headline rate is an amazing concession […] It's certainly better than I had expected."[26]

Both the Federal and State governments play an important role in legislating regulations for the mining sector. (See Table 5.) There are numerous mining provisions being implemented, with each territory or state having its own set of laws and provisions. (See Exhibit 4) According to Australian law, all minerals and petroleum resources are owned by the Australian or State/Territory Governments rather than by private individuals. While, the government itself is not engaged in commercial exploration and development, which are undertaken exclusively by the private sector.

The Central government has been strongly supporting the mining sector, as well as sustainable mining. In promoting the mining sector, the Australian government:

- seeks to secure foreign direct investment in Australian businesses through its investment attraction agency, Invest Australia (www.investaustralia.gov.au)
- supports research and development (R&D) to improve technology and services in the sector; for example, grants and other assistance managed by AusIndustry (www.ausindustry.gov.au) the business program delivery division in the Department of Industry, Tourism and Resources; and
- works with industry to maintain Australia's position as a world leader in the provision of services and technology to the resource industries, by facilitating and promoting the export of Australia's technology and services capabilities.[27]

TABLE 5: AUSTRALIAN GOVERNMENT VS STATE TERRITORIES

	Federal/Australian Government	State/Territories
Role	Sets economy policy, including fiscal, monetary and taxation policies, foreign investment guidelines, immigration, competition policies, trade and customs, company law, international agreements, and native title.	Manage and allocate mineral and petroleum property rights, have primary responsibility for land administration, regulate operations (including environmental, and occupational health and safety), and collect royalties on the minerals produced
Distribution of power	Fiscal policy and investment regime; reduction of risk exploration either through various geosciences programs and resource access for natives.	Allocate mineral rights based on ownership vested in the Crown, implement geoscience programs, regulate exploration and mining including environmental and safety provisions, collect royalties from mining companies and operators.
Common Roles	Both establish the macroeconomic environment, look for ways to remove or reduce impediments to industry competitiveness, reduce commercial risk in exploration by generating and disseminating information at reasonable cost, and provide a regulatory framework for exploration, development, project approval, safety and environmental assessment.	
Others	In terms of ownership, the Australian government's jurisdictional involvement is limited to the resources found outside the first three nautical miles of the territorial sea, while the day-to-day administration is under the State or Territory. However there are some cases where the Australian government can exercise control over the environmental impact of mining through its constitutional power over exports, trading corporations and external affairs--this is especially true for the Northern Territory, insofar as uranium mining is concerned.	
Source: http://www.ret.gov.au/resources/enhancing/Pages/guideforinvestors.aspx		

The Australian government ensures that there is a stable political and regulatory environment to guarantee investor confidence in minerals development. An example of such initiative is the fact that Australia has been ranked as "the fastest place in the world to start a business—in most cases, regulatory procedures take just two days."[28]

The Australian government also encourages sustainable development by creating a balance "between environmental, social and economic goals." [29] In 2006, the government launched the Leading Practice Sustainable Development Program for the Mining Industry, which provides the mining sector and its stakeholders "practical information and case studies to move beyond what is set down in regulation for mining activities."[30] The objectives of the program are as follows:[31]

- INFORM – provide credible information on leading the practice of sustainable development in the Australian mining industry for the purpose of building greater capacity and understanding among those who have an interest in Australia's mining industry including non-government organizations, mining communities, students and international stakeholders information on leading sustainable development practices.

- INFLUENCE – seek the commitment to lead the practice of sustainable development principles from high-level decision-makers in key organizations such as mining companies, government agencies, regulators, industry bodies, and mining contractors and service providers;

- IMPLEMENT – practically implement leading sustainable development practices at the operational level by on-site mine management and consultants, academics and regulators who work at the site level, provide training for those working at site level or regulating the mining industry.

Business Organizations. Mining associations play a key role in the industry in Australia. These organizations provide members with frameworks and practices that ensure the implementation of responsible mining practices and provide the sector a voice in certain policy issues that affect the sector. These organizations also play a key role in the development of CSR for the mining sector. For example, mining groups and other associations such as the Minerals Council of Australia (MCA) and other companies have invested more than US$10 million on primary, secondary and tertiary education (directly US$4.5 million from the Mineral Council of Australia budget). A survey of 14 member companies showed that their collective contribution to community development exceeded US$17 billion.

The MCA represents Australia's exploration, mining and minerals processing industry in its contribution to sustainable development and society. To date, MCA member companies produce more than 85% of Australia's annual mineral outputs. One of the main goals of the MCA is to promote the sustainability of the industry.

There are five important aspects that the council promotes:

Health and Safety	Promoting health and safety remains a top priority of the council, which believes that these can be achieved through the creation of various working groups and different partnerships with other mining companies, therefore integrating and promoting health and safety management for both contractors and employees of the mining sector.
Economic and Commerce	The council believes in the importance of fostering the sector through the promotion of a broad economic policy that ensures sustainable employment and continued growth that will guarantee the competitiveness of the mining sector in the global market.

Education and Training	In its desire to promote and enhance the knowledge base with respect to mining, the council established the Minerals Tertiary Education Council (MTEC) that fosters partnership between mining firms, government and the academe. The program ensures and offers courses related to mining, therefore ensuring continuous learning with respect to new mining practices and initiatives.
Promoting Value	This is done by promoting sustainable development with the cooperation of and in partnership with the International Council on Mining, based on the Metals Sustainable Development Framework Principles. The MCA aims to operationalize these concepts to further promote and enhance the leadership role of Australia with respect to sustainable mining practices.
Environment and Social	In line with operationalizing its sustainable development initiatives, the MCA established the Environmental and Social Policy Committee, aimed to better facilitate and serve its member companies with respect to enhancing their environmental and social programs.

In line with its commitment to the Australian Mineral Council to promote environmental sustainability, the MCA was also responsible for advocating several codes such as the Australian Mineral Industry Code for Environmental Management (January 2000).[32]

The launching of the code in 1996 was a significant step taken by the industry to address the environmental performance and public accountability of the company. Its vision was to achieve outstanding environmental, social, and economic performance, while improving the accountability of the Australian mineral industry.

The strength of the code lay in its mechanism where it integrated the decision-making and management processes concerning the environment, social and economic considerations. It also promoted transparency and accountability in the implementation of community engagement and public environmental reporting.

As of 2010, 44 mineral companies have volunteered to become signatories to the code, representing over 300 operations within and outside Australia. While adoption of the code is voluntary, its strength lies in the commitment of the signatory companies to implement the code within their operations.[33] (See Table 6.)

The code has been criticized for its failure to go far enough in addressing the broader social issues. Thus, the industry is still in the process of understanding the importance and the broader aspects of sustainable development. In order to recognize the impact of the community on the industry, the code has also incorporated community partnership in addressing the impact of mining and mineral processing operations on the community. While the environmental aspect of the mineral industry's operations has an effect on the social aspect, the Australian mineral industry, in general, must take into account all aspects with regard to meeting the needs, aspirations and wants of the impacted communities.

Another aspect of the code is compliance and enforcement. As the signatory companies start producing public environmental reports, the level of the reports integration with compliance to the code will also begin to increase. The council has proposed some mechanisms for a formal and independent analysis, one of them the creation of an advisory body consisting of the council members as well as external stakeholders.

The third aspect is measurement of the code's performance across the industry. The inputs of other stakeholders are essential to obtaining feedback and creating new ideas on how to strengthen the partnership of different stakeholders in promoting the goals of the code.

TABLE 6: AUSTRALIAN MINERAL INDUSTRY CODE FOR ENVIRONMENTAL MANAGEMENT

Principles: Elements and Activities
1. Accepting environmental responsibility for all members 2. Strengthening the relationship with the community, through constant dialogue with employees and the community, fostering openness and respecting cultural heritage 3. Integrating environmental management into the practice, through the creation of a standard code of practice 4. Minimizing the environmental impact, during the exploration and project development; adopting a proactive approach to environmental risk within the life of the mine site, applying ecological principles and stressing the importance of biodiversity 5. Encouraging the responsible production and utilization of products through the pursuit of cost-effective and cleaner production, recycling and the proper disposal of used products 6. Continuous improvement of environmental performance 7. Communicating environmental performance

The fourth aspect pertains to promoting openness and transparency. It also has to do with the need for public reporting on environmental performance to be based on a standard form of reporting and the verification of the code's performance. There is a call for some stakeholders to conduct more external verifications. The need to compare environmental performance reporting across the industry has been identified, to ensure standard and consistent measurement and reporting with regard to the code.

The fifth deals with flexibility of approach. The aim of the council is for the code to be an added value to all companies in the industry, regardless of the size, activity or stage of the mining life cycle—be it the development stage, exploration, or decommissioning. There is also a need for the code to provide a generic set of principles that are flexible in their implementation. The code should accommodate the diversity of activities within the industry, and the range of company sizes. By maintaining flexibility and focusing on principles for achieving continuing improvement in performance, rather than seeking to prescribe, the code will encourage creativity amongst companies, for them to develop solutions to complex problems.

Finally, there is a need to consider the code in relation to other initiatives. One of the issues raised was with regard to how the code would fit in with other environmental initiatives, and with respect to internal company initiatives, ISO 14000, or other government requirements, in meeting the requirements for an environmental license, permit or standards and similar regulations.

The solution lies in the code's providing a framework through which it can have an easy means for introducing a practical application of its objectives. With respect to ISO 14001, the code outlines a set of key environmental management principles which provide the direction for improving a signatory company's performance or where the company wants to get to. Initiatives like ISO 14000 is one of several implementation models or tools that show how a company gets to those goals.

Overall, the aim of the code is to guide performance improvement, rather than prescribe how to achieve it. The strength of the code lies in its applicability, regardless of the status of its internal environmental management programs. There is a commitment to continuously improve the code, through the fostering of long-term behavioral change and the pursuit of responsible environmental management as a core value.[34]

In keeping with the theme of the code and for the sake of openness and accountability, a review process and continuous consultations with all interested parties are advised. The council is itself promoting dialogue and debate with the key stakeholders. Finally, the council aims to provide a solution to the issue with regard to broadening the scope of the code to include more social and economic issues.

The Ministerial Council on Mineral & Petroleum Resources (MCMPR). The main vision of the organization is to promote Australia as a world-class location for minerals and petroleum exploration and development. The organization also seeks to create value for the industry through its contribution to the sustainable development of Australia and the world. The other main tasks of the organization are to demonstrate, promote, and protect sustainable mining. It also seeks to become a leader in science, technology and research on new mining practices and innovations. Finally, the council aims to ensure stability in terms of providing an efficient regulatory environment and fostering a high level of engagement among all mining stakeholders.[35]

OTHER ISSUES FACED BY THE AUSTRALIAN MINING INDUSTRY

Increased Trade with China and Other Developing Countries. Recently, the global market and financial performance of the Australian mining industry dramatically changed. The impact of economic growth in China and other industrialized economies increased the demand for raw materials.

Last year, demand for iron ore from China rose to 33% such that it overtook Japan as the world's largest iron ore importer. Other imports such as crude oil went up by 54%, liquid propane and butane rose to 311%, copper by 66%, nickel and pig iron by 62%, and aluminium at 26%.[36] Both China and Australia have been engaging in free trade negotiations. Given China's increasing demand for energy and mineral resources, Australia is expected to benefit significantly from this growth.

Mine Rehabilitation. In Australia, a major legacy issue is the prevalence of old and abandoned mines that have not yet been rehabilitated. This condition largely resulted from the fact that prior to new legislations, communities had not expected old and abandoned mines to be rehabilitated upon closure. Aside from this, open pit mining is the preferred mining method in Australia. Thus, upon the closure of these sites, the large open cut mines need to be filled and rehabilitated.

A growing scale of mining operations continues to leave legacies of large open-cut operations whereby the pit is often positioned below local groundwater tables. Once dewatering operations cease, these voids tend to form pit lakes, with water from surface sources and groundwater returning to pre-mining levels. Acid mine drainage is an example where exposed materials are oxidized and release acidity, resulting in pit lake waters of low pH and lakes with typically elevated concentrations of heavy metals and low concentrations of carbon and phosphorus.[37] However, where remediation can achieve suitable water quality, these pit lakes may become a valuable asset to Australian communities and the environment.[38]

The planned formation of pit lake environments worldwide is still at the early stage of development, with the actual realization of these often significant water resources even less frequently explored. After more than half a century of the first occurrence of large flooded mining pits, the question as to how to utilize and manage pit lakes remains a challenge for the Australian mining industry, governments, and communities.[39]

In Western Australia alone, it has been estimated that a total of 165,040 hectares have been disturbed by mining, while only 36,952 hectares have undergone preliminary rehabilitation. In Queensland in 2002, of the 73,586 hectares disturbed, only 20,313 hectares were rehabilitated. Gaps like these were likely to be found elsewhere in Australia although the cumulative totals would vary.

The combined area of open cuts, waste rock dumps and tailings dams is almost two-thirds of the cumulative area disturbed by mining. In areas that have undergone preliminary rehabilitation, only about 8% of tailings dams, 25% of open cuts and 49% of waste rock dumps have been rehabilitated. Thus, it is clear that formerly open cut voids, waste rock dumps and tailings dams are putting significant pressure on the rehabilitation requirements and efforts for modern mining projects. The legacy of abandoned mines is acknowledged as a key issue by the mining industry, especially with regard to obtaining a social license to operate.

Another major issue which is not widely acknowledged is the long-term effectiveness of rehabilitation measures--focusing on mined land rehabilitation to reduce surface water and groundwater pollution, erosion issues, minimizing gaseous emissions (e.g., radon, methane), and restoring the land to productivity. Although the engineering and regulatory standards are considerably better now than in the past, there remains concern over the measures' long-term effectiveness.

Finally, there are no uniform standards or criteria for determining "acceptable" rehabilitation. As a result, it remains a contentious issue for many local communities (especially indigenous communities), mining companies, regulators and governments.[40]

TABLE 7: EXTENT OF REHABILITATION OF MINE SITES IN WESTERN AUSTRALIA (HA)

Activity	2003			Cumulative Total to 31 Dec 2003		
	Disturbed by Mining	Preliminary Rehabilitation	Revegetation	Disturbed by Mining	Preliminary Rehabilitation	Revegetation
Borefields & pipelines	9	4	6	1930	415	85
Camp site	8	3	2	1366	394	304
Exploration	57	15	6	4980	1513	836
Mine Infrastructure	395	182	166	51171	5263	4037
Open Cuts	655	285	109	35678	8815	6105
Tailings Dams / Evaporation Dams	271	319	278	33693	2753	2117
Waste Rock Dumps/Heap Leach Piles	632	695	828	36222	17799	11639
Total	2027	1503	1395	165040	36952	25123
Reference: Data Courtesy of WA Department of Industry and Resources (WADoIR)						

SUMMARY AND CONCLUSIONS

Australia has one of the most extensively developed mineral industries in the world. While the number of companies beginning to adopt sustainable mining principles has been growing, numerous issues related to the mining industry continue to emerge:

- a decline in mineral and ore grades
- a dramatic increase in waste rock and tailings—now at several billions of tonnes annually, much of them posing a long-term risk to the environment

- incomplete sustainability reporting–many companies refuse to accurately report relevant data, including the quantity of waste rock, tailings, energy used, cyanide, and waste consumption. [41]

Aside from this, a study on the environmental impact of mining also reveals that:

> On average, 27 tons of greenhouse emissions are created to mine a tonne of uranium. That's equivalent to the annual emissions of nine family cars. To mine one kilogram of gold, it takes 691,000 liters of water; while it takes 141 kilograms of cyanide to produce a single kilogram of gold. It takes a minimum of two million tonnes of solid waste to produce a single kilogram of gold. While copper produces around 250 tons of solid waste per tonne of copper, uranium produces about 2,400 tonnes of low-level radioactive waste per tonne of uranium oxide.[42]

The sustainability issues of great significance to both Australia and the mineral companies are as follows:

- greenhouse gas emissions related to production activities and the use of fossil fuel products;
- the elimination or minimization of all other deleterious discharges from operational sites;
- toxicity issues and perceptions;
- the socioeconomic effects of mine development on local communities;
- planning for end-of-life mine closure, mine site rehabilitation, and minimizing negative social and economic effects;
- fluctuating and falling commodity prices;
- declining relative attraction of mineral sector employment due to the insecurity of employment, downsizing, outsourcing and changed working conditions such as fly-in/fly-out arrangements; and
- occupational health and safety. [43]

Sustainability issues of great significance to Australia rather than to the mineral companies also exist. These are as follows:

- Australia's high level of economic dependency on mineral resource exports;
- the need to produce high-value equipment inputs and added-value outputs, rather than mainly basic mineral products with diminishing unit prices;
- reduced access to land for exploration and mining due to native title and wilderness issues;
- the need for multiple and sequential land use; and
- maintaining a healthy level of economic demonstrated mineral resources [44]

With the increase in the demand and the price of mineral resources, concerns that minerals are being mined at an alarming rate have surfaced.[45]

A report concerning the sustainability of mining in Australia highlighted a number of key aspects: 1) the decline in the quality of ore grades amidst continued growth in production; 2) the need to balance demand and production, and to regulate supply in order to ensure quality, given that mine resources are finite; 3) the inevitability increase waste production, amidst continued growth and expansion; 4) how various resources such as gold and cooper produce more waste than there are resources available; and 5) while the industry has been able to sustain itself economically, various issues such as the decline in the quality and availability of resources, and the increase in waste, have placed into serious question the sustainability of the mining industry, in general.[46]

From Sustainable Mining to Responsible Mining. To ensure sustainable development, investments in both human and physical capital are currently needed to safeguard the benefits of mining, not just for the present generation, but also for the future ones. However, sustainable development has to contend with the fact that mineral resources are finite goods, which begs the question: how can one guarantee the sustainability of the sector if it will eventually run out? In addition, sustainable development also requires companies and all stakeholders to invest not just in economic growth, but also in social development, so as to ensure that human and physical capital are sufficient to guarantee a sustainable future.

Sustainable development requires the wise and efficient utilization of mineral resources to maintain a certain level of economic performance. Mining stakeholders must guarantee their willingness to shoulder the costs attendant to minimizing or reducing the waste discharged and to mitigate all environmental impacts in line with their commitment to sustainable development.[47] The sustainable mining approach espoused and promoted by the mining industry in Australia, the Mines, Minerals and Sustainable Development (MMSD) paradigm was replaced by the concept of "responsible mining" which was more acceptable to the various environmental global groups.

However, there are numerous issues still being raised as to the effectiveness of the new model. One of the criticisms pertains to its effectiveness, given that the code relies on the voluntary compliance of large-scale mining companies. In terms of enforcement, on the other hand, the effectiveness of the new model relies on the ability of the State or government to implement and enforce safeguards articulated in the economy laws. Thirdly, the new model does not address the issue of corporate and state corruption, despite the perception that these are givens in third world countries. Finally, insofar as the participatory decision-making process is concerned, the participation of other stakeholders is often limited to securing the free, prior and informed consent of the direct impact stakeholders, conducting the Environmental Impact Assessment, obtaining the Environmental Compliance Certificate and so on.[48]

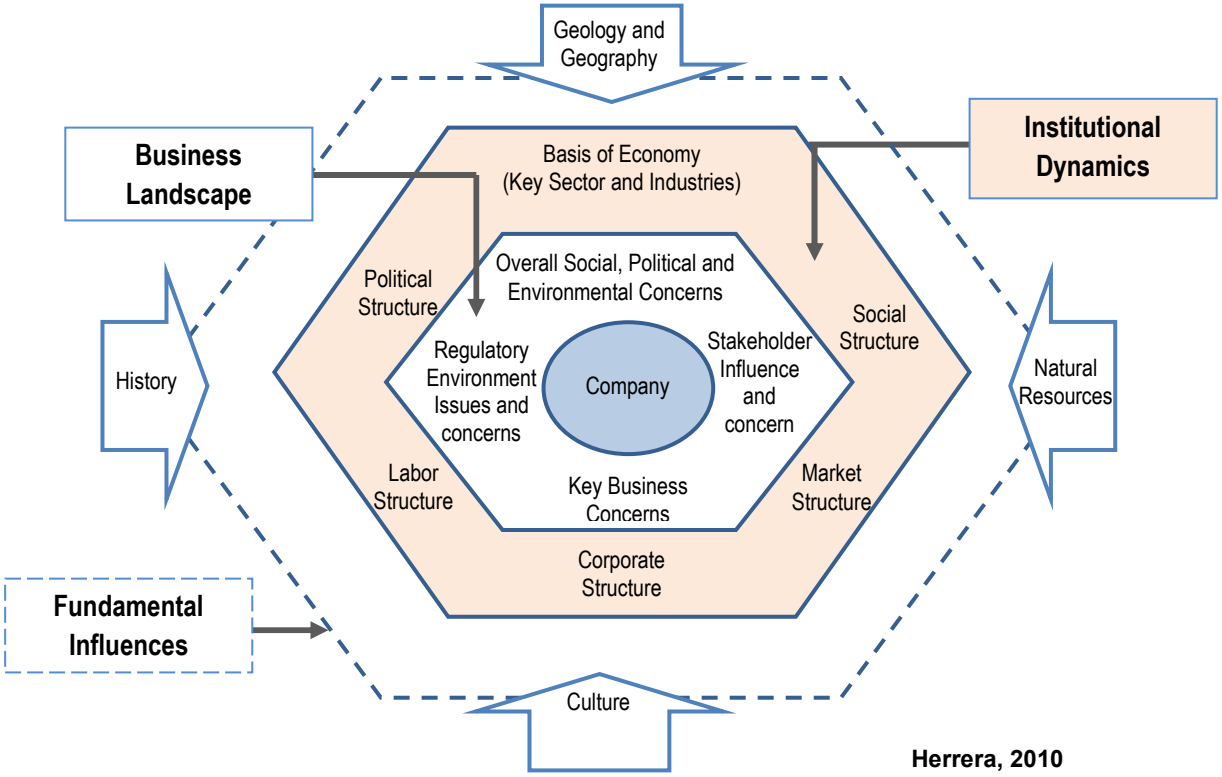
Another challenge with regard to the framework is that while it has resulted in several case studies, it has not resulted in a case study whereby a large scale mining operation was successful in all aspects of responsible mining. Oftentimes, the case studies present successful cases involving only one single operation in a specific area.[49]

A key strength of the framework involves the International Commitment to Responsible Mining, to which a growing number of companies and countries are committing. For example, Australia and the Philippines share a common interest in cooperating in regional affairs such as the Asia Pacific Economic Cooperation (APEC). As members of the APEC Mining Taskforce, Australia and the Philippines share the task of promoting the 10 mining policies developed by the APEC Ministers Responsible for Mining (MRM). [50]

Lastly, whether it be in line with sustainable development or responsible mining, there is a need for all stakeholders to proactively engage each other in a continuous dialogue and to foster the creation of partnerships that will have a more holistic view of the mining sector. Partnerships with the communities can help optimize the social and economic benefits of mining, while government must foster strategic stewardship and create an environment that promotes the industry. While mitigating the environmental impact, mining stakeholders must also take into account the ethical, social and cultural aspects of mining in their operations.

EXHIBIT 1
ECONOMY CASE FORMAT OF THE AIM RVR CSR CENTER

In analyzing the state of the mining industry in Australia, the RVR CSR Framework was utilized. The framework was developed by Professor Maria Elena B. Herrera, FASP, of the Asian Institute of Management. In the Australian case, the framework was modified to determine the current state of CSR in the mining industry, it was important to analyze the external and internal factors that affect the industry and development of CSR. Fundamental influences, Institutional and Business landscape can establish the developmental path of the industry and CSR.



Herrera, 2010

The development of CSR in a county is influenced by geography and geology, natural resources, history and, culture (**Fundamental Influences**). Geography and geology, and natural resources affect the type of industries that the country will focus on. In the case of Singapore for example, given it had limited natural resources, it utilized its location to become the center of maritime trade in the region. History on the other hand would affect the development of institutions in a country. Lastly, culture and religion also affects the development of institutions in a country.

Institutional Dynamics, which are affected by fundamental influences include: basis of the economy, social structure, political dynamics, market structure, labor dynamics and corporate structure.

Key social and environmental concerns of governments would vary from country to country depending on the predominant social and environmental issues as well as the focus of the government in that country. In the same way, the regulatory framework in a country is shaped by institutional dynamics. Similarly, in terms of stakeholder influence, the initiatives of the different stakeholder would depend on the issues that need to be addressed. The strength of these stakeholders depends on the Institutional Dynamics in a country. Institutional dynamics in turn affect the **Business Landscape**.

In crafting their CSR programs, companies need to take into consideration their social and environmental footprint as well as their stakeholders vis-à-vis their values as a corporation and their capabilities. This means taking into consideration the business landscape so that the company can identify possible partners (based on stakeholder influence) as well as key social and environmental concerns that need to be addressed in the country they are operating in.

FUNDAMENTAL INFLUENCES	
1. Geography and Geology	Refers to the physical characteristics of the country's landscape—whether it is a land locked country or it is an archipelago, whether it is predominantly surrounded by mountains or plains, etc. Also refers to its boundaries with other countries.
2. Natural Resources	Refers to the natural resources prevalent in the country, which affect the economic structure and the dominant industries contributing to the country's financial and economic development.
3. Culture	Refers to religion, traditional beliefs, and community practices that encourage the spirit of "giving" to others as well as relative sense of collectivity, responsibility and accountability.
4. History	Refers to events that influence the country and its people over time as well as crises that spur unity, or past events that led to current concerns.
INSTITUTIONAL DYNAMICS	
1. Basis of the Economy	Refers to key sectors and industries—e.g., agriculture, services, manufacturing that drive the country's economy
2. Social Structure	Refers to the country's ethnic diversity; gender ratio; presence of social, academic and religious institutions; presence of media and multilateral organizations; and income disparity.
3. Political Dynamics	Refers to types and effectiveness of governing bodies (i.e. monarchy, feudal, federal, democracy, etc.); the interaction of political actors and institutions; the ability of the government to deliver order, security, and social services; the powerful actors and influences in the political sphere
4. Market Structure	Refers to the market's activities (free market or controlled); presence of market information and available choices for the consumers; as well as customers' or suppliers' influence in the company's operations (i.e. whether the customer has influence on the products of the company or foreign customers are prioritized over local customers)
5. Labor Dynamics	Refers to the presence of labor unions and their major concerns; presence of migrant labor and overseas workers; and level of worker skill sets
6. Corporate Structure	Refers to the types of corporations operating in the country; the influence of business associations and regulatory agencies on the practices of firms; the company structure in carrying out social development programs
BUSINESS LANDSCAPE	
1. Key Social and Environmental Concerns and Initiatives	Refers to key social concerns—education, health, environment, workforce, i.e., Equity Index (income, health, education), Human Development Index and Millennium Development Goals—past and current statistics as well as the future goal 2015
2. Regulatory environment	Refers to the laws, policies and regulations that promote the development of CSR
3. Stakeholder Influence	Refers to the interests, relative influence and initiatives or programs of major stakeholders (individuals, organizations, business associations, government, NGOs, civil society, technical partners or multilateral organizations) that affect perceptions and actions
4. Key Business Concerns and Initiatives	Refers to key business interests—in terms of financial or social concerns. This could include the industry codes and regulations, whether mandatory or voluntary (e.g., Global Compact)
COMPANY INITIATIVES	
1. Footprint	Refers to the environmental and social impact of the company's activities and operations, whether direct or indirect.
2. Stakeholders	Refers to parties and individuals that are affected by, have interest in, or can influence the company's operations.
3. Values	Refers to the corporate culture and practices of the company
4. Capabilities	Refers to the company's core competencies and resources

EXHIBIT 2
IMPORTANT MINERALS DISCOVERED IN AUSTRALIA OVER THE YEARS

- Copper in north of Adelaide (e.g., Kapunda, Burra, Moonta-Wallaroo) since the late 1840s, in Cobar in central New South Wales since the 1870s, Mt Lyell since the late 1890s, Mt Isa since the mid-1950s and in Olympic Dam, Northparkes, Ernest Henry and others, more recently
- Gold in New South Wales and Victoria in 1851, followed soon after by Queensland and other states (e.g., Western Australia from the 1890s)
- Lead, zinc and silver in Broken Hill in western New South Wales in 1883 (though zinc could not be recovered economically until some 20 years later)
- Manganese in Groote Eylandt in the 1950s
- Nickel in Kambalda, south of Kalgoorlie, Western Australia, in 1966
- Tin in Mt Bischoff in Tasmania in 1871 and, subsequently, along the east coast of the mainland
- Uranium in Rum Jungle, Northern Territory in 1949, and Mary Kathleen, Queensland in 1954; it experienced a resurgence from the late 1970s onward
- Iron ore in the Middleback Ranges near Whyalla, South Australia in the 1890s, followed by the opening up of the Pilbara in the 1960s
- Bauxite in Weipa (Queensland), Gove/Nhulunbuy (Northern Territory) and the Darling Ranges (Western Australia) in the 1960s
- The Argyle diamond deposit in 1979

EXHIBIT 3
FINANCIAL, ENVIRONMENTAL AND SOCIAL CONTRIBUTION OF AUSTRALIAN MINING INDUSTRY

<table>
<tr><th>2006-2007</th><th>2008-2009</th></tr>
<tr><td colspan="2">FINANCIAL</td></tr>
<tr><td>% of GDP: 8%

Employment
- direct (127,500)
- indirect (200,000)

% of Australian total capital investment (26%)

Exports A US$b
- coal & uranium 23.1
- other minerals 66.2
- mining equipment & services 2.0

Total 91.3

(% of total trade) (40%)</td><td>% of GDP: 8%

Employment
- direct (133,200)
- indirect (200,000)

% Growth in capital investment 07/08 23.6 %
Value $31.1b

Exports A US$b
- coal & uranium 52.9
- iron ore 33.67
- other minerals 44.76
- Mining services and Equipment 2.5
Total 133.88

(% of total trade) (48%)</td></tr>
<tr><td colspan="2">ENVIRONMENTAL</td></tr>
<tr><td>• Largest employer of environmental professionals
• Accounted for 3% of economy water use with an economic value added of between US$86,000/ML and US$25,000/ML
• Mining sites disturbed<0.26% of Australia’s land mass - during the 2007-2008 period, the industry was forecast to spend more than US$200 million annually on the rehabilitation of disturbed lands
• Accumulated provisions of nearly US$3.5 billion for rehabilitation</td><td>• Largest employer of environmental professionals
• Accounted for 3% of economy water used with an economic value added of between US$86,000/ML and US$25,000/ML
• Mining sites disturbed <0.26% of Australia’s land mass and during the 2007-2008 period, the industry was forecast to spend more than US$200 million annually on the rehabilitation of disturbed lands
• Accumulated provisions of nearly US$3.5 billion for rehabilitation</td></tr>
<tr><td colspan="2">SOCIAL</td></tr>
<tr><td>• More than 350 Indigenous Land Agreements across 200 operations in 14 member companies—collective contribution of more than US$17 billion on community development
• Invested more than US$10 million on primary, secondary and tertiary education
• From having one of the worst industrial safety records of any sector to having one of the best. Our goal of zero fatalities and injuries remained our number one value and commitment.</td><td>• More than 420 Indigenous Land Agreements across 200 operations
• Largest private sector employer of Indigenous Australians.
• Companies were to contribute more than US$7 billion in royalties as part of the US$18 billion in State and federal taxes in the 2008/2009 financial year - almost 50% more than 2007/2008.
• Invested more than US$10 million on primary, secondary and tertiary education.
• From having one of the worst industrial safety records of any sector to having one of the best. Our goal of zero fatalities and injuries remained our number one value and commitment.</td></tr>
<tr><td>Source: The Australian Minerals Industry and the Australian Economy (May 2007)</td><td>Source: The Australian Minerals Industry and the Australian Economy (July 2009)</td></tr>
</table>

EXHIBIT 4
KEY RELEVANT ACTS AND OTHER REGULATIONS AND CODES OF PRACTICE

	State/ Territory Mining industry legislation	Environmental Protection Legislation	Native Vegetation Protection Legislation	Rights and Native Title regulation	Aboriginal Heritage Legislation	Water Legislation	Planning Legislation
Commonwealth				Native Title Act 1993	Aboriginal & Torres Straits Islander Heritage Protection Act 1984	National Water Initiative	
New South Wales	Mining Act of 1992, Coal Mines Regulation Act of 1982, Mining Regulation 2003 and Coal Mines Regulations 1999	Protection of Environmental Operations Act of 1997; Protection of the Environmental Operations (General) Regulations 1998 and Clean Waters Regulations of 1972	Native Vegetation Act 2003, Native Vegetation Regulation 2005	Native Title Act 1994, Aboriginal Land Rights Act 1983, Aboriginal Land Rights Regulation 2002	National Parks and Wildlife Act 1974, National Parks and Wildlife Regulation 2002	Protection of Environment Operations Act 1997, Water Management Act 2000, Water Management Regulation 2004	Environmental Planning and Assessment Act 1979, Environmental Planning and Assessment Regulation 2000
Victoria	Mineral Resources Development Act of 1989 and 2002	Environmental Protection Act of 1970, Flora and Fauna Guarantee Act of 1988, National Park Act of 1975, Environmental Effects Act of 1978; State Environmental Policies (ambient air quality, control of noise, water quality and greenhouse), National Parks Regulations 1998	Planning and Environmental Act of 1987, Victoria's Native Vegetation Management, A framework for Action, 2002	Land Titles Validation Act 1994, Statutory land grants made to certain aboriginal trusts under various Aboriginal Land Act	Archaeological and Aboriginal Relics Preservation Act 1972, Aboriginal & Torres Straits Islander Heritage Act, Archaeological and Aboriginal Relics Preservation Regulations 2003	Water Act 1989, various water regulation	Planning and Environment Act 1987 local government issue permits under the Environment Effects Act- DSE administers approval , Planning and Environment Regulation 2005, Municipal Planning Schemes, State Environmental Planning Policies
Queensland	Minerals Resources Act of 1989 (amended by the Natural Resources and Other Legislation Amendment Act of 2003) Mineral Resources Regulation of 2003	Environmental Protection Act of 1994, Environmental Protection Regulation of 1998	Vegetation Management Act of 2004, Vegetation Management Regulation 2000	Native Title Regulation 1996	Aboriginal Cultural Heritage Act 2003, Torres Strait Islander Cultural Heritage Act 2003, Cultural Heritage Management Plan guidelines	Water Act of 2000, Water Regulation 2002	Integrated Planning Act 1997, Integrated Planning Regulation 1998

	State/ Territory Mining industry legislation	Environmental Protection Legislation	Native Vegetation Protection Legislation	Rights and Native Title regulation	Aboriginal Heritage Legislation	Water Legislation	Planning Legislation
Western Australia	Mining Act of 1978, Mining on Private Property Act of 1978, Mining Regulation of 1981	Environmental Protection Act of 1986, Conservation and Land Management Act of 1984, Wildlife Conservation Act of 1950, Soil and Land Conservation Act of 1945; Environmental Protection Regulations of 1987, Guidelines to help you get Environmental Approval for Mining Projects in Western Australia, Licensing regulation for operation discharging waste to the environment, Requirements for holding a Pastoral Lease	Amendments to the Environment Protection Act 1986, register clearance permits since 2004; Environmental Protection (Clearing of Native Vegetation) Regulation 2004, Native vegetation controls-offset/net gain requirements.	Native Title (State Provisions) Regulations 2000	Aboriginal Heritage Act 1972, Aboriginal Heritage Regulations 1974	Water and Rivers Commission Act 1995, Water Supply Sewerage and Drainage Act 1912, Waterways Conservation Act 1976, Rights in Water and Irrigation Act 1914, Licensing regulation for operations discharging waste to the environment, Licenses to abstract water for mining operations	Local Government Act 1995, Western Australia Planning Commissions Act 1985, Land Administration Act 1997, Statements of Planning Policy for Environment and Natural Resources Provision for local planning-by-laws

	State/ Territory Mining industry legislation	Environmental Protection Legislation	Native Vegetation Protection Legislation	Rights and Native Title regulation	Aboriginal Heritage Legislation	Water Legislation	Planning Legislation
South Australia	Mining Act of 1971, Mining Regulation of 1998	Environmental Protection Act of 1993, Wilderness Protection Act of 1992, National Parks and Wildlife Act of 1972, Environmental Protection Regulations 1994	Native Vegetation Act 1991, Native Vegetation Regulation 2003, Fraft Guidelines for a Native Vegetation Significant Environmental Benefits Policy for the clearance of native vegetation associated with the minerals and petroleum industry	Native Title Regulation 2001	Aboriginal Heritage Act 1988, National Parks and Wildlife Act 1972, Aboriginal heritage issues are integrated in the pre-negotiated exploration ILUAs, Aboriginal Site Avoidance Guidelines	Water Resources Act 1997, Water Resources Regulation 1997, Environmental Protection (Water Quality Policy)	Development Act 1993, Developmental Regulation 1993
Southern Australia	-	-	-	-	Aboriginal Heritage Act 1988, National Parks and Wildlife Act 1972, Aboriginal heritage issues are integrated in the pre-negotiated exploration ILUAs	-	-

	State/ Territory Mining industry legislation	Environmental Protection Legislation	Native Vegetation Protection Legislation	Rights and Native Title regulation	Aboriginal Heritage Legislation	Water Legislation	Planning Legislation
Tasmania	Mineral Resources Developmental Act of 1995, Mineral Resources Regulation of 1996, Mineral Code	Environmental Management and Pollution Control Act of 1994, National Parks and Wildlife Act of 1970, Forestry Act of 1920, Regional Forest Agreement (Land Classification) Act of 1998; Environmental Management and Pollution Control Regulations, Mineral Exploration Code of Practice, Quarry Code of Practice	N/A	-	Aboriginal Relics Act 1975	Water Management Act 1999, Water Management Regulations 1999	Land Use Planning and Approvals Act 1993, Land Use Planning and Approvals Regulation 2004
Northern Territory	Mining Act of 1980, Mining Management Act of 2001, Mining Regulation and Mining Management Regulation	Environmental Assessment Act of 1994, Waste Management and Pollution Control Act of 1998, Territory Parks and Wildlife Conservation Act of 2001; Environmental Assessment Administrative Procedures 2003, Waste Management and Pollution Control (Administration) Regulation 1998, Territory Wildlife Regulation 2004	Pastoral Land Act 1996, Soil Conservation and Land Utilisation Act of 1995, Pastoral Land Regulations 1999	-	Northern Territory Aboriginal Sacred Sites Act 1989, Heritage Conservation Act 1991, Northern Territory Aboriginal Sacred Site Regulations 2004, Heritage Conservation Regulations 1999	Water Act 1992, Water Regulation 2002	Planning Act 1999, Planning Regulations 2005

	State/ Territory Mining industry legislation	Environmental Protection Legislation	Native Vegetation Protection Legislation	Rights and Native Title regulation	Aboriginal Heritage Legislation	Water Legislation	Planning Legislation
Australia-wide	Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2004 ed.) (the JORC Code) Enduring Value	-	-	-	-	-	-

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