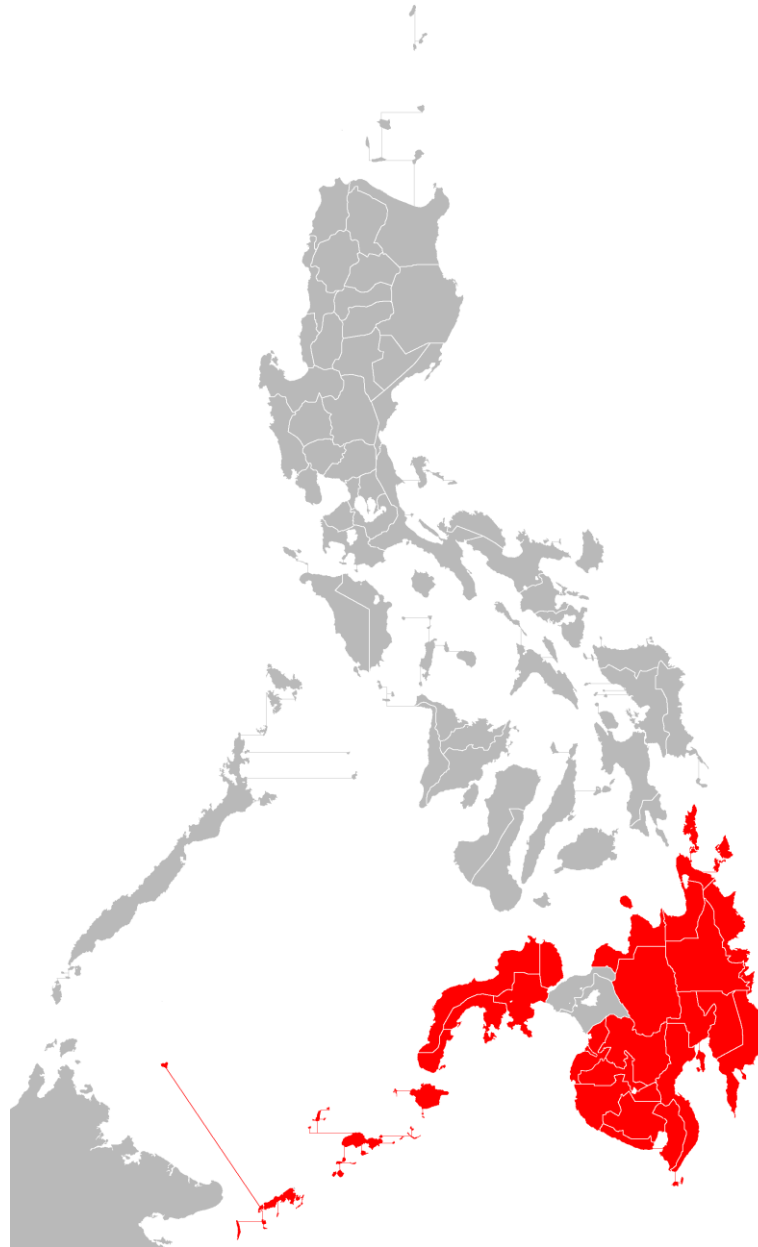


2012

University of Notre Dame
Business on the Frontlines IV



[MINING INDUSTRY REPORT]

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1. Introduction

In March 2012, Catholic Relief Services in the Philippines hosted a group of six graduate students and a faculty member from the University of Notre Dame (Indiana, United States). The students were participants in an innovative course called Business on the Frontlines, which is offered through the Mendoza College of Business to master's degree candidates in business, law, and peace studies. The purpose of the course was to better understand the role of business in rebuilding post-conflict communities, and the field visit to a post-conflict is a crucial element of the course. This was the fourth year that Notre Dame has offered this course, and the second year that CRS Philippines has partnered with a Business on Frontlines team to assist the students in learning more about the unique challenges CRS seeks to address in the Philippines and allow them to apply the principles they have learned through their studies to these real-world challenges.

This year, CRS asked the team of Business on the Frontlines students to explore the impacts of the mining industry on communities in Mindanao, both through outside research and interviews with stakeholders in Manila and Mindanao. This report documents the team's finding and is intended as a resource for CRS as it seeks to define a strategic response to the challenges associated with the mining industry in the Philippines, specifically in the post-conflict and conflict-prone areas of Mindanao.

This report begins with an overview of the mining business model, followed by a description of the current state of the mining industry in the Philippines and some of the economic impacts of mining to specific communities that the team visited. The legal framework and regulatory environment surrounding mining in the Philippines is described, followed by a description of the advocacy environment and the stances taken by local communities and NGOs that are active in Mindanao. Next, best practices are presented for both government agencies regulating mining and the mining companies themselves. Finally potential strategic directions are recommended for consideration by CRS.

The report is the result of a two-week in country trip and independent research. Prior to the visit, we spent time researching mining best practices in other parts of the world. We utilized interviews, academic articles and company reports. While in country, we conducted over 30 interviews (over 57.5 hours of interview) in Manila, Davao, T'Boli, Telefas, Marbel, and Columbio. We spoke with individuals from civil society organizations, the government, mining companies and other business leaders. We had discussions with the CRS staff that directed us throughout the trip. After our visit, we conducted further research around items that came to light while in country.

2. Mining Overview

Due to the high prices for raw materials, mining operations can be highly profitable, but the high level of capital investment required before any profits can be extracted makes mining highly risky. This section describes the most common types of mining activities and the nature of the required investment, followed by an examination of the Filipino mining industry more specifically.

2.01 Types of Mining

There are two major types of mining: *open pit* and *underground*. Both forms of mining require the removal and processing of ore. Processing can either occur on- or off-site depending on the economics of the project. Issues with mining frequently revolve around the associated destruction of the environment and storage of waste materials that may contain toxic substances. Mine life, on average is approximately 20 to 25 years though some mines have been producing for hundreds of years. Figure 1 illustrates the two most common types of mining:

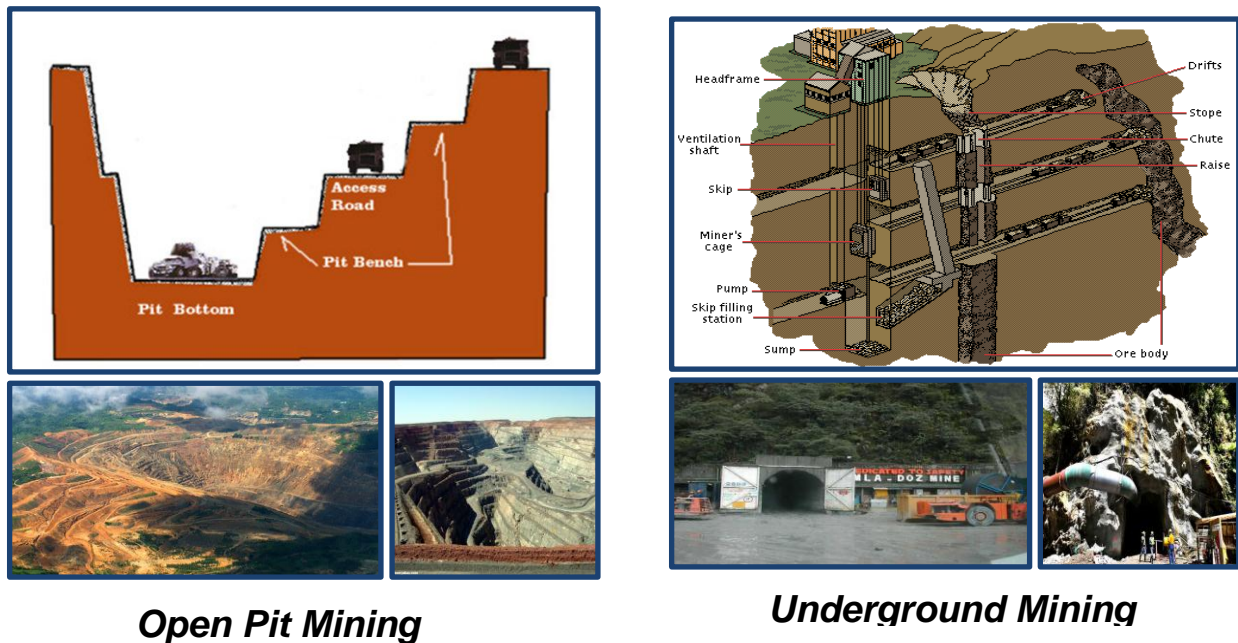


Figure 1: Mining Types

Open pit mining

Open pit mining takes place on the surface of the earth and involves the removal of earth in a progressive manner, creating a large pit. Most open pit mining is done on low-quality ore bodies that have trace amounts of minerals but large quantities in the aggregate.

Underground mining

This type of mining involves the drilling of a series of shafts into the earth. Because this is a more expensive form of mining, underground mining typically occurs when there is a high grade ore body, such as a vein of gold, which can be mined precisely.

2.02 Investment Overview

Mining, on a large scale, is a very capital intensive industry as well as a risky endeavor. Most mining firms follow a venture capital model where several investments are made but only a few ever pay off. For this reason junior firms often engage in exploration of promising ore bodies and then sell out to larger multi-national firms that develop the ore bodies who have the capital to build the needed infrastructure. Figure 2 illustrates the typical timing and relative magnitudes of cash flows from a mining operation.

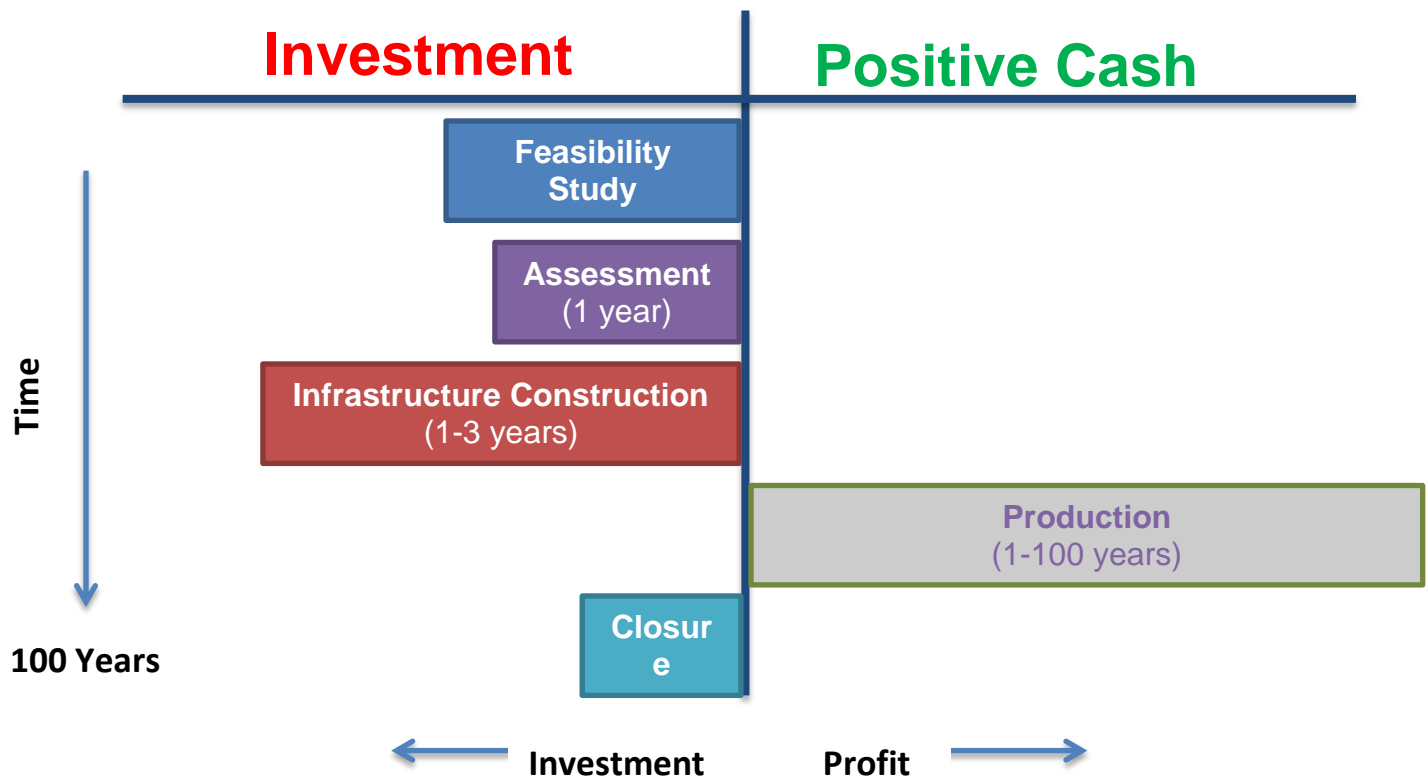


Figure 2: Timeline of Cash Flows

2.03 Mining in the Philippines

Mining occurs across most of the islands within the Philippine archipelago which is mineral rich due in part to its location on the Pacific “ring of fire”. Studies show that the Philippines ranks third in gold, fourth in copper, fifth in nickel, and sixth in chromite. The Philippines’ total untapped mineral wealth is estimated to be worth more than US 840 billion.¹ Figure 1 shows an approximate distribution of minerals within Mindanao.

¹ Quisumbing Torres Mining and Natural Resource: Primer on the Philippine mineral industry
<http://www.philippinemetals.com/i/pdf/Primer.pdf>

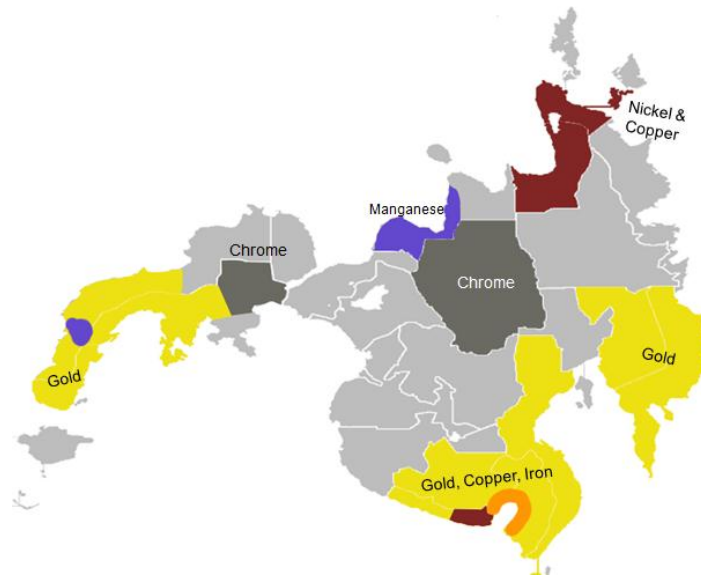


Figure 3: Locations of Mineral Deposits in Mindanao

Large scale mines represent a small number of the overall mines in the Philippines with 27 active mines under MPSA agreements. Exploration permits cover three extremely large FTAA (Financial or Technical Assistance Agreement) agreements and several other MPSA (Mineral Production Sharing) agreements. Refer to Section 4 for a description of each of these two agreement types. Large scale mines are a key point of contention for pro- and anti-mining activists. Note also that there are only two foundries in the Philippines for processing ore into minerals. See Appendix A for a list all of the mining permits and their status as of November, 2011.

Mines overlap heavily with the conflict areas in Mindanao. This overlap seems to contribute to the persistence of conflicts in several areas. This overlay is seen in figure

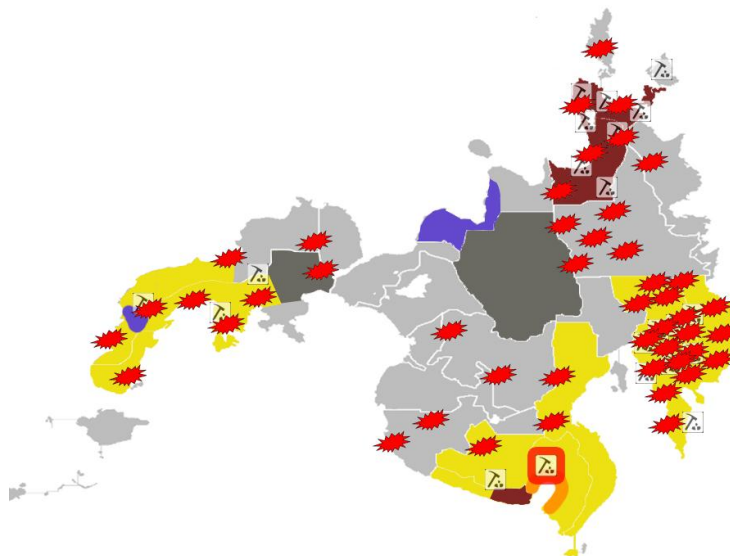


Figure 4: Overlap of Conflict and Mining

Large-scale, Medium-scale, and Artisanal Miners

Based on current legal definitions and rhetoric in the mining debate there are two scales of mining, large and small. More specificity is needed with a minimum of Large Scale, Medium Scale, and Artisanal definitions.

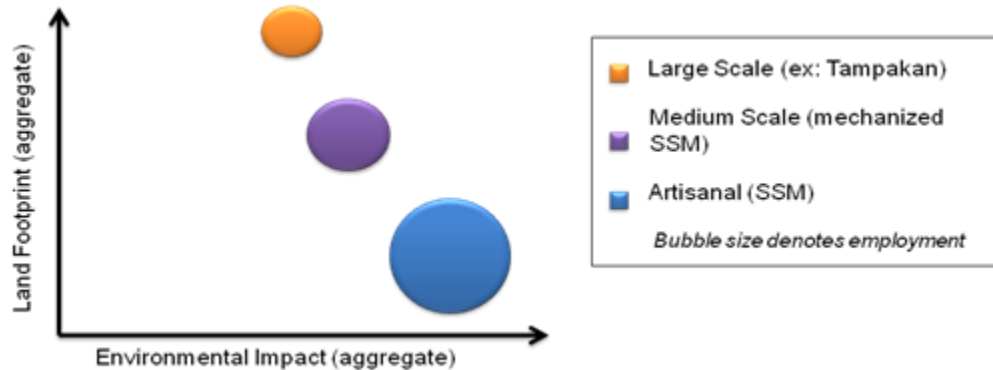


Figure 5: Miner Segmentation

Large scale includes mines such as Tampakan (SMI) and Canatuan (TVI) that spread over large areas and covered by MPSAs or FTAA's. Because of the size of the companies involved and their footprint, activist groups identify these as targets.

Medium scale mines tend to operate on small scale permits but operate using heavy machinery and equipment in direct violation of the small-scale mining act. Since this distinction is not official, there is little data on the scope and scale of medium scale mining.

Small scale mining is supposed to be done in an artisanal fashion (without mechanized equipment), so this report refers to these miners as artisanal. These are typically miners that are financed by an external party, commonly from China or Korea, who splits the profits with the local miners through a middle man. Artisanal mining activities can take place in isolation or within larger mining camps.

Table 1: Dimensions of Mine Segmentation

	Large Scale	Medium Scale	Artisanal
Ownership	Filipino/Foreign	Filipino/Foreign	Filipino/Foreign
Financing	Capital markets: shareholders, bond holders, loans	Foreign investors (primarily Chinese and Korean) or Local investors (often politicians)	Foreign investors (primarily Chinese and Korean) or Local investors (often politicians)
Land Footprint (per mine)	Large	Medium	Small
Environmental Impact (per unit produced)	Medium	Large	Very Large
Mechanization	Yes	Yes	No
Method	Open pit	Surface	Surface

	Underground	Underground	Underground Panning
Legal Permits	Usually	Sometimes	Rarely
On Arable Land	Yes	Yes	Yes
Creates Conflict	Yes	Yes	Yes

These mining scales can be segmented by aggregate footprint and environmental impact, as illustrated in Figure 5. Mines can be further segmented along several other dimensions, as outlined in Table 1. It should be noted that the environmental impact is based upon the effects based upon per unit produced. Artisanal mines have a larger effect due to the lack of environmental regulation that they follow. Their impact is thus quite large in many areas. Large scale mines, while they may mine larger areas, on a per unit basis, are more environmentally friendly as they are forced to follow more regulations

Profitability

Profitability of mining companies seems to be primarily driven by the scale they are able to achieve, how many mines they are actively running, and what stage these mines are in. Table 2 outlines the financial performance of several large-scale mining firms in the Philippines. As shown, Philex is the most profitable and also the largest illustrating the economies of scale at work in this industry. Atlas and Apex seem to be moving from the investment phase of the mining lifecycle into the production phase as their profitability has increased. TVI is a very small player but may continue to expand in the Zamboanga area.

Table 2: Profitability of Mining Companies in the Philippines

Mining Co	Market Cap ²		2010	5 Year Average
Philex	104B PHP	Net Profit ³ %	39.20	35.27
		Return on Assets ⁴ %	21.94	23.20
Semirara	85.64B PHP	Net %	21.62	14.37
		ROA %	19.26	12.60
Apex	10.27B PHP	Net %	-2.95	-44.84
		ROA %	-2.60	-13.55
Atlas	31.7B PHP	Net %	16.84	-17.41
		ROA %	9.26	-5.59
TVI	1.02B PHP ¹	Net %	3.57	4.60
		ROA %	4.54	6.12

Small Scale Mining in the Philippines

Small-scale miners include individuals mining at subsistence or family business level as well as established mining companies. It is estimated that:

² Market Capitalization - Value of Company

³ Profits

⁴ Return on Assets

- 75 per cent are in subsistence mining;
- 15 per cent are small individual or family businesses;
- 10 per cent are established commercial mining firms.⁵

Technology employed varies from traditional pick-and-shovel concerns to mechanized and sophisticated operations which use the same methods as large mining companies, as in the case of gold processing and extraction.⁶

The small-scale mining sector is known to have contributed 40 to 50 per cent of the Country's total gold production during the period from 1990 to 1999. Based on conversations with the Mining and Geosciences Bureau (MGB), it is currently contributing about 60 percent of total gold production.⁷

2.04 Implications

There are a few implications of mining that should be noted here. First, large scale mining requires a large capital investment upfront and has a great deal of risk. Should a company not be successful in finding minerals, their initial investment is for naught. This is often why there are large returns in extractive industries: to cover the risk of not finding minerals at all. The overlap of conflict and mining in the Philippines implies also that there is a correlation between the two.

3. Summary of Economic Impact of Small-scale Mining

It is estimated that small scale mining has the following impacts:

- Provides direct and indirect employment to 200,000 people;
- Supports at least one million of the country's population, or one in every 70 Filipinos.
- Generates or supports at least 20,000 formal and informal small enterprises and businesses.⁸

During the site visit in Mindanao, the team was able to visit two mining sites in T'Boli and Telefas and a small scale processor in T'Boli. From notes compiled through interviews, the team developed an economic analysis of the mining operations and processing operations.

3.01 T'Boli Mining Description

In T'Boli, the team encountered two types of mining operations: small scale and large scale run by TMC (Tribal Mining Corporation) under an MPSA (See Section 0). The team was able to talk with the small scale miners about their operations but did not have the opportunity to interview the large scale operations.

⁵ Id at 3 and 4.

⁶ Id.

⁷ Id.

⁸ See the Country Case Study on Artisanal or Small Scale Mining Commissioned by International Institute for Environment and Development and the Mining, Minerals for Sustainable Development.
<http://pubs.iied.org/pdfs/G00732.pdf>

The mines in T’Boli all share a central channel into the mountain and then split off into individual small scale mines which are individually financed. Although the large scale TMC mine has a different entry point into the mountain, small scale miners said that their mine connects with the small scale channel and is shared for about 50 yards before it splits off to its own mine. This was an issue of content prior to a memorandum of understanding being signed. The barangay captain approximated that the production from small scale mining dropped by 30 percent when the TMC mine began operations.

The small scale miners are regulated by the barangay both for safety and for taxes. In the T’Boli region each miner has their own permit and the individual miners have then organized into different co-ops. There are four co-ops in this region. There are inspectors that monitor the safety of each tunnel. These all report into a central safety inspector for the barangay.

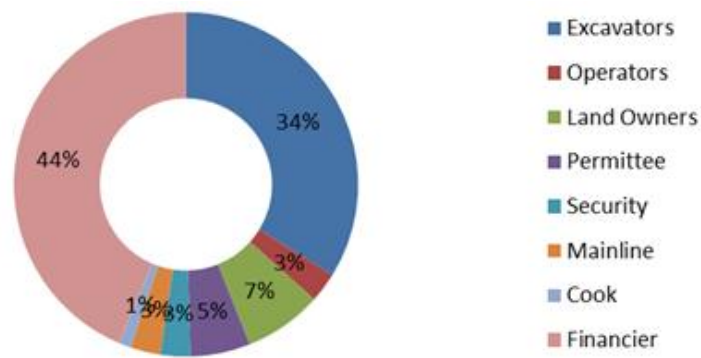


Figure 6: T'Boli Profit Distribution by Job Function

Economics of Small Scale Mining Operations

Small scale mining operations in T’Boli are started up by an investor who is not local to the region. The initial capital required is approximately 100,000PHP (approximately \$2,000US) to begin operations. Several different types of workers are then put onto the mining payroll and receive different compensation. These are listed below with a brief description and their compensation. Should a small scale mine become highly profitable, it could produce up to 180 bags of ore each day. Figure 6 and Figure 7 show the resulting distribution of profits amongst the workers listed in Table 3.

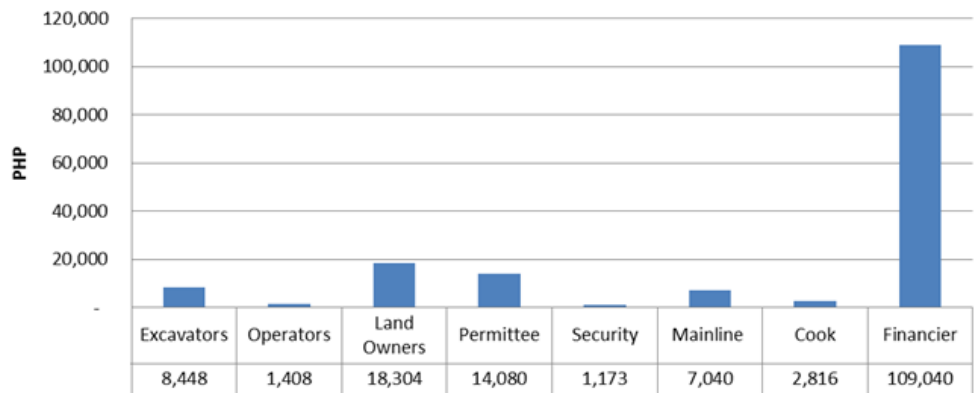


Figure 7: T'Boli Profit distribution by person

Table 3: Small Scale Mining Labor

Position	Description	Compensation (based on 180 bags per day)	Value of compensation Per Person Per day⁹
Excavator	Individuals who are excavating ore. These individuals have the skill to know what to excavate.	60 bags per day among the 5-10 excavators	8400PHP
Operator	Individuals who carry excavated bags of ore out of the tunnel	5 bags among 10 operators Compensated 20 pesos per bag carried (3600PHP)	1400 PHP
Land owner	Individuals who own the land	13 bags per day	18300PHP
Permitee		10 bags per day	14000PHP
Security	Individuals who monitor the mine and maintain security	5 bags among 6 security officers	1200PHP
Mainline Engineer	Individual who monitors the shared channel that small scale monitors utilize	5 bags	7000PHP
Cook	Individual who cooks food for miners	2 bags	2800 PHP
Financier	Individual who attained permits and offered initial capital for start of mine	80 bags	110000 PHP

3.02 Processor Economic Analysis

In T'Boli there are many small scale processors. These processors use primitive processing to extract the gold from the raw ore that has been extracted. The processor the team visited had 80 different tumblers for processing and had about 10 operators there. It utilized mercury for extraction and operated 24 hours a day. The process extracted about 30% of the gold and the remaining ore was sold to other arsenic processors.

The processing steps are as follows:

- **Manually Crush Gravel:** Operators remove gravel from bags and manually crush by pounding with shovels.
- **Load and Tumble:** Operators load one shovel-full of ore into tumbler and add water. The tumbler runs for three hours and eleven tumblers can produce one bag of ore.

⁹ Assuming that each bag is worth 1650PHP.

- **Panning Operation:** Operators add mercury to the tumbled mix, and then they pan and filter the mix through cloth by hand to extract gold. The process is labor-intensive and requires skill.
- **Burn-off:** Operators cook the mercury-gold composite in a furnace to vaporize the mercury and yield gold.

3.03 Economics of Processing

Based on on-site interviews, a processing operation requires approximately 500,000PHP in capital to start. This capital is used to purchase the tumbling and burn-off equipment as well as buildings and land.

The owner of the processor the team visited was paid 15PHP per tumbler processed and the laborers were compensated 7PHP per tumbler processed. This yielded a net of 8200PHP per day for the processor and 770PHP per day for each laborer,¹⁰ as shown in Figure 8.

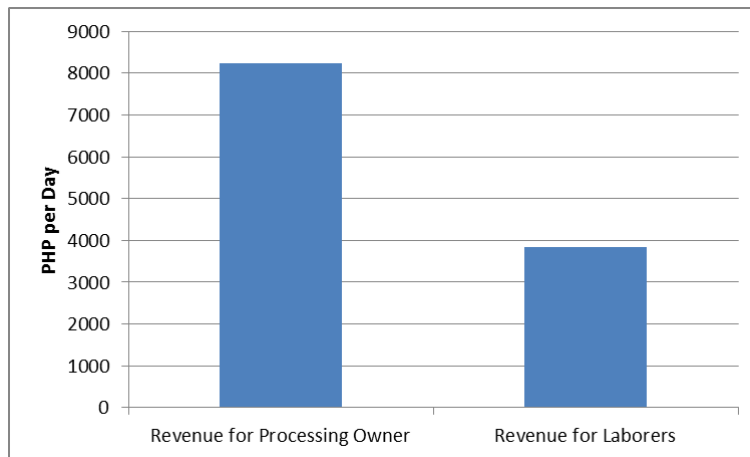


Figure 8: Revenues from Processing

3.04 Mining in the Telefas Region

The team also visited with a group of pro- and anti-mining citizens from the Telefas region. Among the pro mining group were two men who had been involved in small scale mining in the area. These men explained that they relied on outside financiers to continue operations. This financier works through an in-country middle man who handles the transactions between the two parties. Middle men find mining areas by looking at who owns the permit and getting information from 'scouts' who do some mineral testing in these areas in advance. The mining area in Telefas had been idle for the past year as the middle man had disappeared, presumably having skimmed some money off of the operation.

¹⁰ Assumes that there are 80 tumblers in the processor, 3.5 hr start to start per tumbler and 5 laborers on each 24 hr shift.

The operation

Telefas is a much smaller scale operation than T'Boli with truly artisanal mining taking place. Work is done by members of the community and there is a community milling operation. Like T'Boli, the process of mining involves the extraction of ore into bags which are brought down the mountain to the processors. From the interviews the miners either brought the bags down manually or used donkeys/horses. There were approximately twelve tumblers in the mill, shown in Figure 9.



Figure 9: Mill Operation

Although these mills had been idle for twelve months or more, containers of mercury were still present. Tailings from previous operations had been dumped into the area in front of the processing mill. Over the last three months, the operators had been moving these tailings into sacks to be sold to another processor who would put the ore through a cyanide/arsenic process to extract more of the gold. It was unclear how much these sacks were worth though it was quite evident that it would be costly to haul them and that the processing plant was not close. It was also unclear how tainted the area had become from the mining operation but there was a small stream adjacent to the mill and farm animals roaming in the mill area as well as children.

The Economics

Where T'Boli could be considered more of a mass scale, professional operation with many actors the community based mining in Telefas has fewer actors. Miners serve multiple functions and because of the reduced scale there is no need for security. While the miners mentioned they could make 50,000 PHP or more in a day, Table 4 represents an average case scenario.

Table 4: Mining Economics in Telefas

Net Income Per Day¹ (100 Bags)		
Revenues	Income per Bag	1800 PHP
	Gross (100 Bags)	180,000 PHP
Costs	Milling Costs per Bag	(150) PHP
	Other Costs per Bag	(50) PHP
	-Landowner	
	-Food	
	-Misc. Supplies	
	Taxes to Barangay (10 PHP per bag)	1,000 PHP
	Total Costs (100 Bags)	(21,000) PHP
Net		159,000 PHP
Shares	Each Miner (50)	1,920 PHP
	Financier	63,000 PHP
	Mill Operator	15,000 PHP

3.05 Social & Environmental Costs of Mining

Mining cannot be summarized only in the financial gains of a community only. There are significant social and environmental costs that must be examined as well. In these particular regions, the impact on conflict must also be considered these issues must be examined on a mine-by-mine basis. No two mine's impacts will be the same given the local community and the physical landscape. This section looks to explore what could be considered in terms of social and environmental costs and what metrics are used in other areas.

Social Costs

It is quite difficult to monetize social impacts of mining. However based on the team's interviews, the issues that were of the most concern to community leaders were the cost of the loss of indigenous culture, the cost of relocation of indigenous people, the cost of internal conflict of indigenous people, and the cost of inflation and higher prices.

It is difficult to compare these costs with the financial benefits since such a comparison would require a financial value for each of these issues. The World Bank has begun to quantify these types of costs through a program called WAVES. In the future, this program may yield tools that CRS could use in evaluating the costs and benefits of mining.

Environmental Costs

The environmental costs of mining are more measurable than the social costs. Many can be compared to the financial benefits of mining more easily. Table 5 lists environmental costs of mining and metrics that could measure them. These are basic metrics which must be examined on a case by case basis since the situations can drastically vary. For example, the cost of water contamination in one area might be quite higher than another depending on how many people depend on the water source.

Table 5: Environmental Costs of Mining

Environmental Cost	Metric of comparison
Water contamination	Cost per gallon to purify water
Land contamination	Revenue from non-contaminated land usage (e.g. farming revenues/acre)
Air contamination	Carbon offsetting costs (carbon credits)
Deforestation	Difference between the value of arable and non-arable land
Biodiversity depletion	No examples

Impacts of Small-scale Mining

Many of the environmental, health and safety issues surrounding SSM are as a result of the use of hazardous material like Mercury and cyanide.

Several studies conducted in mining areas and adjacent regions have also revealed that drinking waters and rivers have exceeded recommended water quality criteria, marine species such as fish and mollusks have mercury levels beyond the allowable limit while miners and children examined exhibited symptoms of mercury contamination.

Social and health concerns have also been raised regarding the unregulated migration in mining sites especially in "gold rush areas", land tenure and resource use conflicts, limited access to health and basic services, exposure of miners to occupational health and safety hazards, exploitation of workers especially minors.

The cutting of timbers to support mine tunnels for instance, has aggravated the denudation of forests and the distortion of scenic landscapes. The indiscriminate discharge of waste rocks in water bodies has also resulted in soil erosion and siltation which in turn cause instant flooding, with consequent damage to crops, properties and even lives.

Mining and Conflict

The team heard anecdotal reports of high levels of militarization associated with mining in mineral-rich regions such as Zamboanga. However, the extent of such militarization is not well-documented. While a rich literature exists on the topic of militarization in Mindanao generally, there is a need for further research on the level of militarization that results directly from mining.

In general, scholarly research concurs to the rather fluid nature of security in Mindanao, where private security forces are often used by businesses and politicians for personal protection. Guns in the hands of Civilian Volunteer Organizations (CVOs) and the appealing setting in the Philippines (limited government security capacity in Mindanao, cheap labor) for the globally increasing trend in private military and

security services is also notable in the literature¹¹. The frequent break-ups and fragmentation within the MNLF and MILF, foreigner kidnap-for-ransom activities of other non-state military groups, as well as need for anti-piracy measures have allowed and supported the proliferation of private military forces and paramilitary units in the region¹². The involvement of ex-military personnel in these private security forces is supported both in the literature and through on-site interviews. This is to a greater extent attributed to the low pay in the government army units as compared to what private security forces might provide.

Connecting these well evidenced facts to the anecdotes the team heard on the ground, it would not be speculative to say that mining companies, like other businesses in the Philippines are susceptible to resorting to private paramilitary units to deal with security problems, given the limited capacity of the state to maintain security in Mindanao. Several attacks on the large mining sites by the NPA and examples such as Xtrata Mining Company using CVOs to repress popular uprising of people in Tampakan, South Catabato would further strengthen the susceptibility of mining companies to militarization in this scenario¹³.

In cases where the states lacks the capacity or the will to provide security- as is the case in many part of Mindanao, and where there's some level of militarization by non-state actors, communities often feel the need to arm themselves in order to ensure their security. In fact, the presence of government organized armed CVOs might lend a hand in to this in the absence of proper control mechanisms¹⁴. In communities like Zamboanga, the community has armed its members including women and children for personal protection. Other examples in the literature are Didipio in Nueva Vizcaya (Climax Arimco Mining), Mankayan (Lepanto Mining). Itogon (Benguet Mines) and Tuba (Philex Mines) in Benguet, Areas in Apayao and Kalinga Province as well as several areas in Mindanao such as Siocon (TVI)¹⁵.

Table 6: Types of Mining-related Conflict

Company related	Large vs. small scale	
	Small vs. small scale	
Involving political Actors	NPA vs. Large scale	
	Government vs. NPA	
Community based	Leaders vs. members	Violent and non-violent
	Among members (pro vs. anti)	

¹¹ Hernandez, Katherine Marie. Pirates in the Sea: Private Military and Security Company Activities in Southeast Asia and the Philippines Case. Working Paper Series No.9, October 2010. Global Consortium on Security Transformation

¹² Hernandez, Katherine Marie. Pirates in the Sea: Private Military and Security Company Activities in Southeast Asia and the Philippines Case. Working Paper Series No.9, October 2010. Global Consortium on Security Transformation

¹³ The Institute of Bangsamoro Studies and Center for Humanitarian Dialogue. Armed Violence in Mindanao: Militia and Private Armies. Center for Humanitarian Dialogue

¹⁴ The Institute of Bangsamoro Studies and Center for Humanitarian Dialogue. Armed Violence in Mindanao: Militia and Private Armies. Center for Humanitarian Dialogue. July 2011 p. 25-26

¹⁵ Alipio, Arthur Joseph Paul. Natural Resource Conflict in the Philippine Cordillera Mountains. Cordilla Conservation Trust. P. 14

The potential of mining to breed conflict at the community level is also another impact of mining at the community level. Mining has also been identified as a contributing factor for communal conflict due to climate change and population pressure. In the event where land is taken up by mining, communities who have now lost their land might try to encroach upon land from neighboring communities¹⁶. Disagreement and between leaders and community members regarding payments from mining companies or ancestral domain land rights is common. Also, due to the highly polarized and politicized nature of the whole mining debate in general, communities might also clash over whether to give their consent to mining companies¹⁷. Although it seems that these conflicts do not typically escalate to the point of violence, the potential for violence or damaging relationships is not farfetched. Overall, the conflict takes place at different levels and between different actors. Table 6 summarizes the types of conflict that came to light during the team’s on-site interviews.

3.06 Implications

Small scale mining has proven to be quite lucrative for investors and laborers. Mines create jobs not only in the extraction itself but in the processing as well. The value created though often comes at the cost of social and environmental impacts. It should be noted that the mines are economically strong enough to support environmental standards and bear some of the social costs.

4. Legal and Regulatory Environment

Figure 10 illustrates the legal and regulatory framework that governs mining operations in the Philippines. Key elements are discussed in the sections below. The proposed Alternative Mining Act is also discussed.

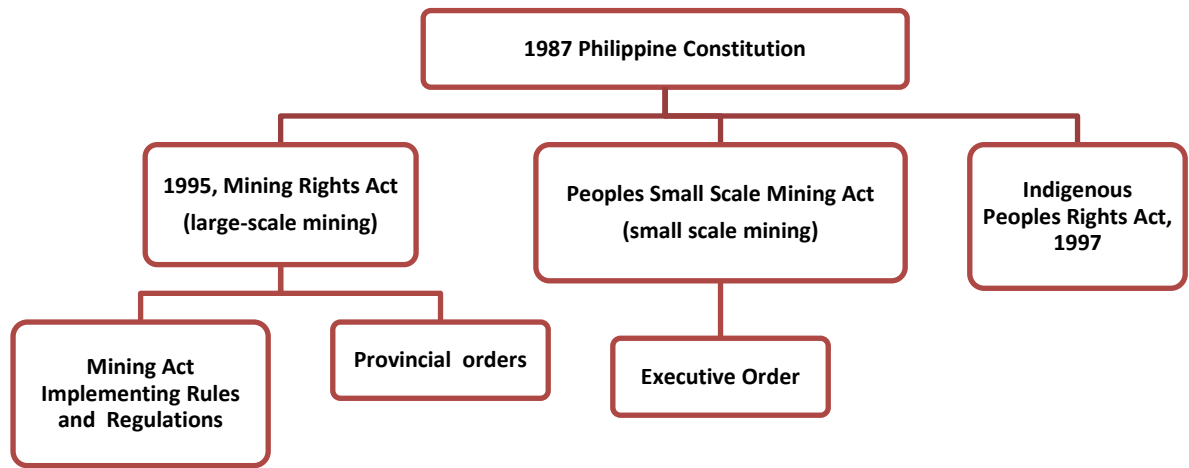


Figure 10: Legal Framework for the Regulation of Mining in the Philippines

¹⁶ Alipio, Arthur Joseph Paul. Natural Resource Conflict in the Philippine Cordillera Mountains. Cordilla Conservation Trust. P. 23-30

¹⁷ Alipio, Arthur Joseph Paul. Natural Resource Conflict in the Philippine Cordillera Mountains. Cordilla Conservation Trust. P. 14

4.01 The 1987 Constitution

Under the Constitution, the State owns all mineral resources. If an investor wishes to acquire the right to extract or develop natural resources, the investor must enter into an agreement with the State. Only Filipino citizens and corporations 60% Filipino owned may acquire private lands. Foreigners and foreign corporations may enter into agreements for the lease of private lands.

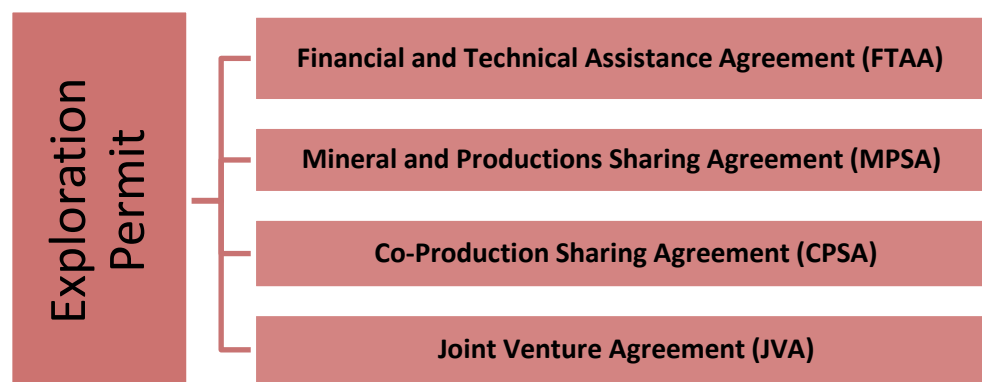


Figure 11: Types of Permits and Licensing Agreements

4.02 1995 Mining Act: Licensing Agreements

The 1995 Mining Act defines four types of licensing agreements under which mines may operate, as shown in Figure 11 and described in the following sections.

The Exploration Permit

This permit gives the holder the right to conduct exploration for all minerals within a specified area. The permit is valid for a period of two year renewable for up to six years.

If exploration reveals that there is a mineral deposit the holder of the permit may within a specified time file a declaration of mining project feasibility. The approval of the declaration will mean that the holder of the exploration permit will have exclusive right to a mineral agreement over the permit area.

FTAA

This agreement type has aroused the most controversy in the Philippines. This agreement enables one hundred percent foreign owned corporations to acquire mining licenses. The requirements for this agreement are:

- Contractors must make a minimum investment for development of \$50,000,000 or the Philippine Peso equivalent;
- This agreement is only available for certain types of minerals, gold, copper, zinc.

To date, six FTAA agreements have been awarded. None has proceeded to excavation phase.

MPSA

The most common type of mineral agreement the MGB issues is an MPSA. Under this type of agreement, the government shares in the production of the Contractor, whether in kind or in value, as owner of the minerals. In return, the Contractor provides the necessary financing, technology, management and personnel for the mining project.¹⁸ Only Filipino citizens or corporations that are sixty percent Filipino-owned are entitled to be holders of an MPSA.

There are many technical requirements for the approval of a mining agreement which include proof of financial and technical capability, a three-year work program and a mining project feasibility study. However for the purpose of this report, a few key requirements which must be complied with include:

- Environmental Compliance Certificate (ECC);
- Environmental Protection and Enhancement Program;
- Certificate of Environmental Management and Community Relations;
- Certification Precondition from the National Commission on Indigenous Peoples attesting that –
 - The proposed permit area does not overlap any ancestral land/domain claim in case of non-Indigenous People (IP) area; or
 - The Free and Prior Informed Consent (FPIC) has been issued by the Indigenous Cultural Community (ICC)/IP concerned.

With regards to the law, the legal provisions dealing with environmental compliance and indigenous communities exist. What seems to be lacking may be the skills and expertise to enforce these requirements and also mining companies using corruption and bribery to avoid fully complying with all the requirements stipulated for obtaining an agreement.

Other types of agreements

Though the statute provides for two additional agreements, they do not seem to be used or enforced. No company is currently operating under the co-production agreement¹⁹ or the joint venture agreement.²⁰

4.03 Indigenous Peoples' Rights Act

The Indigenous Peoples' Rights Act of 1997 ("IPRA") grants to indigenous cultural communities or indigenous peoples ("ICCs/IPs") certain preferential rights to their ancestral domains and all resources found therein.

The characteristics of an ancestral domain are as follows:

¹⁸Primer for application for Mineral Agreements <http://www.mgb.gov.ph/Files/Info%20Materials/PrimerMPSA.pdf>

¹⁹ Id. **Co-Production Agreement (CA)** A mineral agreement wherein the Government provides inputs to the mining operations other than the mineral resources.

²⁰ **Joint Venture Agreement (JVA)** A mineral agreement wherein the Government and the Contractor organize a joint venture company with both parties having equity shares. For its share, the Government is entitled to a share in the gross output of the mining project aside from its earnings in the equity of the company.

- Needs to be areas generally belonging to ICCs/IPs comprising lands, inland waters, coastal areas, and natural resources;
- Held under a claim of ownership, occupation or possession by the ICCs/IPs or through their ancestors, communally or individually since time immemorial;
- The ownership of the land must be continuous to the present, except when interrupted by war, displacement or as a consequence of government projects etc.

Key Aspects of the IPRA

Free and Prior Informed Consent (FPIC): In terms of the Act, no mineral agreement shall be approved unless there is a prior certification from the National Commission on Indigenous Peoples (“NCIP”) that the area does not overlap any ancestral domain or that the prior free and informed written consent has been obtained from the ICC/IP concerned.

This consent normally requires entering into a memorandum of agreement with the ICC/IP concerned, through their Council of Elders. The memorandum of agreement will govern the utilization, extraction and development of natural resources within their ancestral domain. This agreement is subject to a limited term of 25 years, renewable at the option of the ICC/IP for another 25 years.

Rights of Ownership: ICCs/IPs have rights of ownership over lands, waters, and natural resources and all improvements made by them at any time within the ancestral domains.

Right to Develop Lands and Natural Resources: ICCs/IPs have the right to control, manage, develop, protect, conserve, and sustainably use their land in accordance with their indigenous knowledge systems and practices and customary laws.

Right to Benefits: The ICCs/IPs have the right to benefit from the utilization, extraction, use and development of lands and natural resources within their ancestral lands/domains and to be compensated for any social and/or environmental costs of such activities.

Accordingly, the concerned ICC/IP community shall be extended all the benefits already provided under existing laws, administrative orders, rules and regulations governing particular resource utilization, extraction or development projects/activities, without prejudice to additional benefits as may be negotiated between the parties.

World Bank discussion paper on the IPRA

The World Bank released a report in June 2007 on the legal and institutional framework, as well as the implementation challenges to the IPRA in the Philippines.

The report found that unlike many other countries, the Philippines had enacted legislation to give rights to the IPs. However, some of the challenges which are preventing proper implementation of these rights include:

- Conflicting laws, there is a need to harmonize IPRA with other laws.
- Identifying and profiling of IP communities, delineating their territories and documenting their customary laws and decision-making process.

- Organizing IPs and accrediting IP organizations.
- Enhancing the NCIP's organizational and technical capacity and building the capacity of IPs.
- Improving the efficiency of the CP/FPIC process while simultaneously strengthening the credibility of the FPIC.

4.04 The People's Small Scale Mining Act

The Philippines has two pieces of legislation regulating SSM and a set of separate safety rules and regulations which was promulgated mainly to address small-scale mining operations.²¹

Presidential Decree (PD) 1899 was the initial legislation to legalize small-scale mining. It provides a licensing system, which includes provision for issuing small-scale mining permits within existing mining claims subject to the consent of the claim holders.

On the other hand the People's Small Scale Mining Act, RA 7076, grants mining rights in the form of joint venture or mineral production sharing agreement between the government and the small-scale miner.

Current Definitions of Small-scale Mining

Because there are two separate sets small-scale mining laws, the country thus has two separate legal definitions of small-scale mining.

In terms of the *People's Small Scale Mining Act*, small-scale mining refers to mining activities which rely heavily on manual labor using simple tools and methods, and do not use explosives or heavy equipment.

In terms of Presidential Decree 1899 small-scale mining refers to any single unit of mining operation having an annual production of not more than 50,000 metric tons of ore and satisfying the following conditions:

- Working is artisanal, either open-cast or shallow underground mining without the use of sophisticated mining equipment;
- Minimal investment on infrastructure and processing plant;
- Heavy reliance on manual labor; and owned, managed, or controlled by an individual or entity qualified under existing mining laws, rules and regulations.

The most recent legislation in relation to SSM in the Philippines is the promulgation of the small-scale safety rules and regulations in 1997. This was in an attempt to deal with the negative effects of SSM.

These regulations place health and safety requirements that need to be followed with regard to different kinds of SSM. It also provides for there to be a health and safety inspector to regulate compliance. Law-makers recognize the environmental, health and safety issues created by small scale mining. However, more needs to be done to implement the laws.

²¹ The general mining law of the country, The Philippine Mining Act also provides provisions for other mining activities such as quarries and sand and gravel extraction, which are generally classified as small-scale mining operations.

4.05 The Proposed Alternative Mining Bill

There is a strong lobby movement to repeal the current mining legislation regulating large-scale mining and to replace it with the Alternative Mining Bill.

Table 7: Proposed Changes to Current Mining Law

Issues Raised About Current Law	Proposed Change
Ownership & Governance –	
Highly concentrated on the decision of the President (upon recommendation of the DENR Secretary) and small opportunity to decide is given to the local government units (LGUs) and other stakeholders via public consultation.	Decision-making will be held in Multi-Sectoral Mineral Council that will be composed of representatives of the national government (DENR and MGB), representatives from the affected Local Government Units (LGUs), non-government organizations (NGOs) and the local indigenous communities
Expanding the definition of affected community - Definition of affected communities is limited to those areas found within the contract area	Definition of affected communities includes communities and LGUs determined in relation to the watershed system, which includes downstream communities that may be affected by mining.
Economics –	
Government share is limited to excise taxes of 2% required by law. No mandate on royalty fee or benefit sharing.	As a matter of principle, advocates of the Alternative Mining Bill argue that there should be increased taxation of mining companies beyond what is provided in the current law.
Mineral Agreements –	
No citizenship requirement and allows 100% foreign ownership is allowed under the Financial or Technical Assistance Agreement (FTAA).	Removal of the FTAA. Only Filipino citizen/s or corporation/s 60% of whose equity is owned or controlled by Filipino is allowed to mine.
Maximum areas for mineral agreements are 16,200 hectares.	Maximum areas for mineral agreements is 500 hectares, with maximum cumulative amount of 750 hectares within a particular watershed
Maximum term for the contract is fifty (50) years.	Maximum term for the contract is fifteen (15) years
Environmental –	
Based on the compliance with Environmental Impact Assessment (EIA), which is outdated and does not adequately address the complexity of mine operations.	Mandates contractors to secure international insurance and performance bonds for rehabilitation and response to disasters and risks;
The chapter on Safety and Environmental Protection is lenient and inadequate.	Introduction of the Environmental and Social Impact Prevention and Mitigation Plan (ESIPMP) that will replace the EIA to comprehensively assess not just the environmental impacts of mining but as well as its economic socio-cultural impacts

The president is likely to issue a Presidential Decree dealing with some of the matters raised by anti-mining advocates. It seems as if most people will await the outcome of the Presidential Decree before taking further steps regarding the enactment of the Alternative Mining Bill. Table 7 was provided by ATM and summarizes the issues with the current legislation and the proposed changes.²²

Anti-mining activists argue that the mining laws have favored foreign owned companies and large scale mining contractors. In reality, only six FTAA contracts, giving mining rights to foreign-owned companies have been approved and none have gone into full scale production. Though there are a number of good reasons why a legislative overhaul would be necessary, it cannot be justified on the basis that the current law favors foreign corporations over Filipino citizens. The biggest challenge to environmental rights issues and human rights issues in the Philippines is the proper enforcement of the current law.

4.06 Implications

Mining laws in the Philippines are extremely complex and difficult to enforce. Manila controls the mineral rights and being distant from Mindanao, this creates stresses on the legal system. The movement towards an alternative mining bill forces mines to go smaller and into lesser value areas. As a result, this could reduce the amount of foreign investment in mining. This is due to the lower returns a smaller mine would imply. The alternative bill could increase the proliferation of small scale mining. Mining Spectrum in the Philippines

5. Mining Spectrum in the Philippines

Based on the news articles, anti-mining websites, and dialogues with CRS Philippines it appeared that the mining industry drew a clear line between those who are in favor of mining and those who are against mining. However, the positions of the individuals and groups the team met with were much more nuanced.

5.01 Site Visit Interviews

The team conducted over 30 interviews (57.5 hours of interviews) with different stakeholders such as the government (national to local), mining companies (foreign and local), local small scale miners, local businessmen/investors, church, civil society groups, and community leaders. The meetings with different stakeholders were set by Myla Leguro (CRS Mindanao). As a team six foreign students and a faculty member, they were welcomed by influential stakeholders and had the opportunity to ask some sensitive questions to gain deeper insights behind their mining sentiments.

²² see http://www.alyansatigilmina.net/files/AMB_in%20brief.pdf.

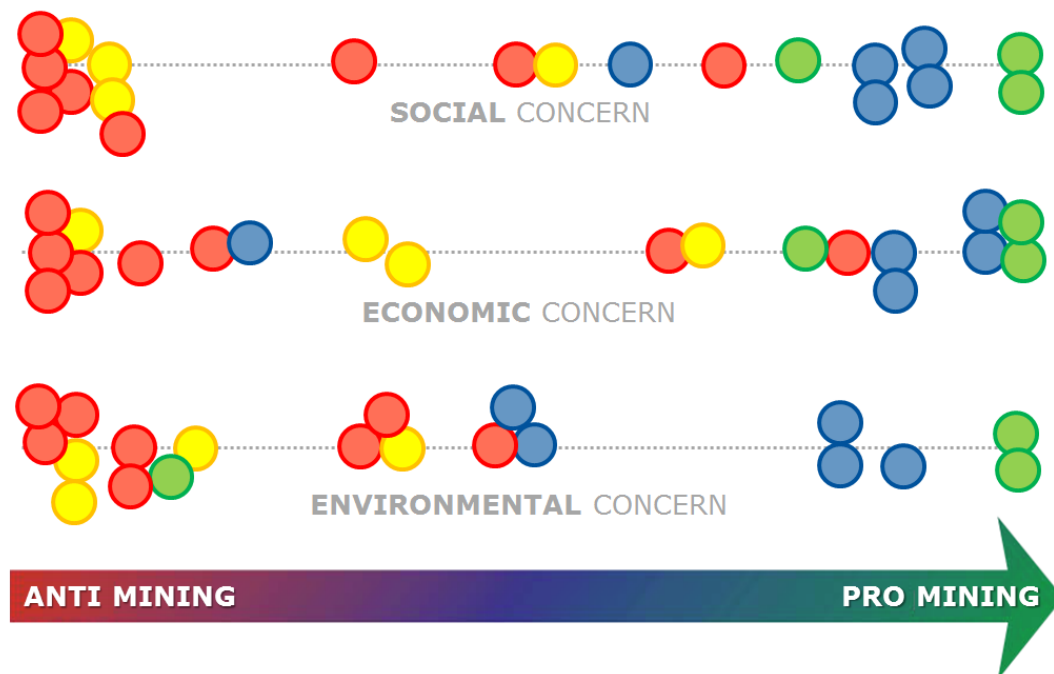


Figure 12: Spectrum of Advocacy Positions on Mining

Figure 12 illustrates the range of positions that various individuals and groups in the Philippines have taken on mining, visualized by red circles representing civil society and community leaders, yellow circles representing Church leaders, blue circles representing Government officials, and green circles representing the Mining companies. The mining spectrum is based on our team's overall subjective opinion after interviewing thirteen anti-mining groups, nine pro-mining groups, and six neutral groups. As shown, opinions on mining can be described along three dimensions. There are social concerns, economic concerns, and environmental concerns that a different weight is being put on not simply a pro versus anti-mining. Societal concerns relate to displacement of the indigenous people, increase of crime, violence, and drug abuse in mining related communities. Economic concerns are factors of job creation, and the overall mining community's economic prosperity. Environmental concerns are issues with pollution, water contamination, and impact to the nearby agriculture productions.

The mining spectrum analysis will attempt to formulate recommendations that would address the two defining perspectives among the broad range of stakeholders: 1) How to balance between protecting the environment and maximizing gains from mining and 2) How to minimize the negative effects and maximize the benefits of mining for communities in Mindanao. This report focuses on four groups, church leaders, civil society and community leaders, government officials, and the mining companies.

5.02 Church Leaders

In general, the leaders of the Catholic Church in the Philippines take an anti-mining position, although some individual bishops take a more moderate stance, especially considering the potential economic benefits that mining may offer a community.

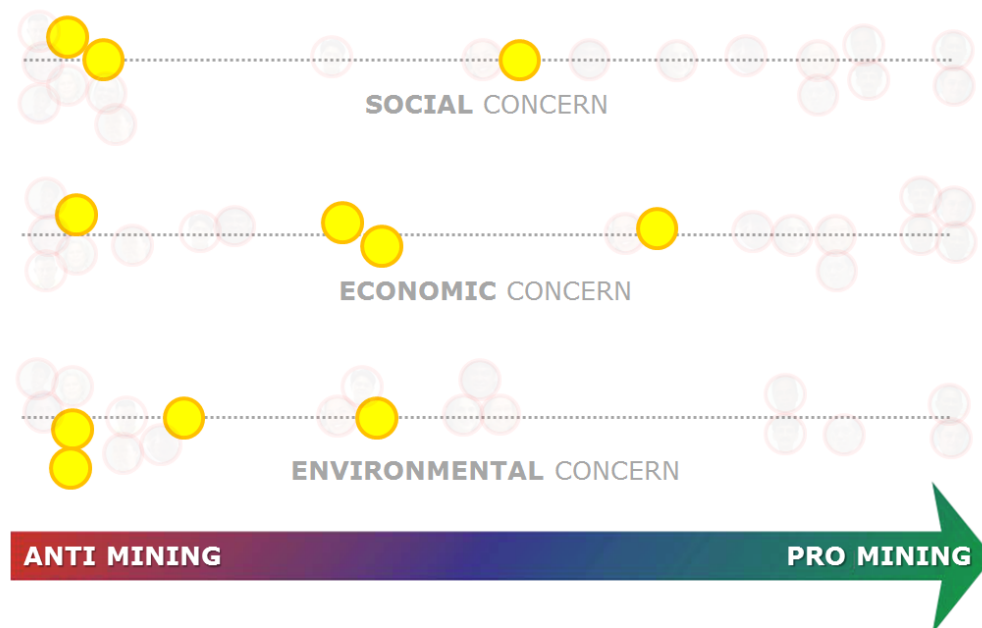


Figure 13: Positions of Church Leaders

Social Concerns

The group from *Anteneo University Davao* seemed to be against foreign owned mining. They were not completely against mining since they acknowledged that small scale mining was a problem but preferred that over large scale since it was Filipino run.

Economic Concerns

Based on *Bishop De La Cruz's* personal experience in Malampaya (oil industry) and Semirara he showed positive signs towards mining because he witnessed that extractive industry can operate responsibly. Bishop would like to see a temporary moratorium on mining until the proper legal, regulatory, and capital infrastructure frameworks can be put in place that would help the local communities to derive more long-term, sustainable benefits from the mines.

Environmental Concerns

Most church leaders have a strong sense that mining violates reconciliation with creation. In specifics Father Tabora from Anteneo University Davao raised the concerns of deforestation, biodiversity endangerment, groundwater pollution, and the responsibility of the dam 50 years later after the mining operations.

Bishop De La Cruz is opposed to the Tampakan project due to the sheer size of the project. The Bishop also had four other areas of environmental concern to the Tampakan project: the storage of tailings, the use of land, the use of water, and the long-term damage to the environment.

Bishop Gutierrez stated that mining destroys the landscape and questioned who will be responsible with the remaining (waste, damaged landscape) after the companies cease operations. Bishop was also extremely against small scale mining because they were the least regulated, most of them were illegal mining operations, and used dangerous toxics for mining practice.

The Social Action Center says no to all forms of mining however with small scale mining there needs to be some form of additional monitoring and engaging in water and soil testing.

5.03 Civil Society and Community Leaders

The positions of civil society organizations in general followed the same pattern as those of church leaders, with generally negative views towards mining. Again, they were most likely to see potential benefits along the economic dimension.

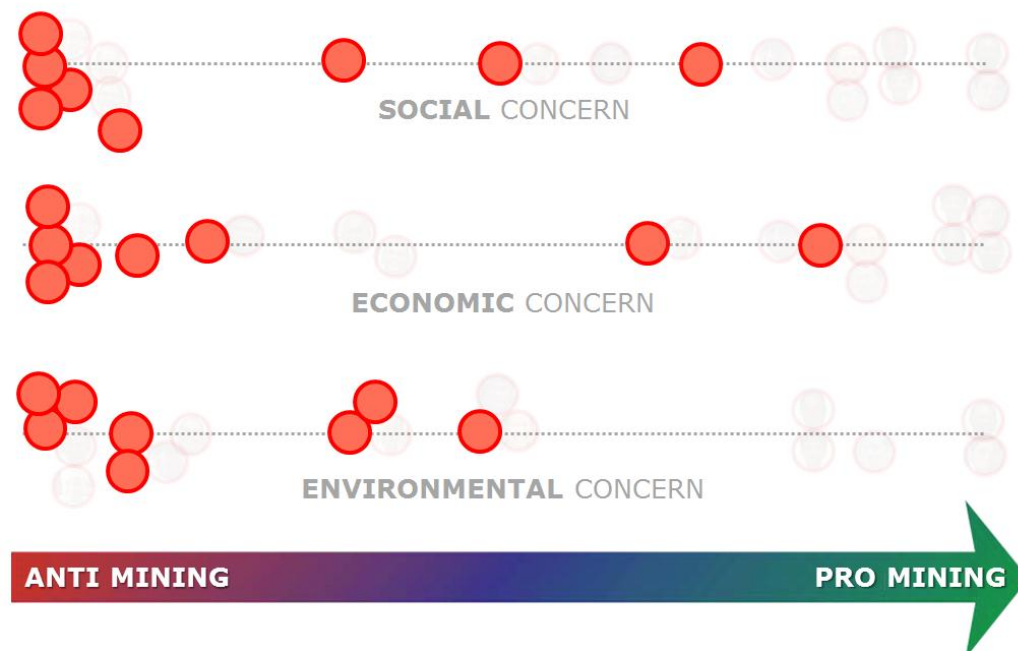


Figure 14: Positions of Civil Society and Community Leaders

Social Concerns

Many organizations such as the *Alternate Forum for Research in Mindanao* (AFRIM) are opposed for large scale mining because they are primarily foreign firms and there is a “Philippine First” provision in the constitution.

Another common theme for the CSO groups having an anti-mining sentiment is the use of “bribes.” Various groups claim that the clinics and schools built by the mining companies are intended to bribe the local population.

The *IP leaders from Bayog and Zamboanga Del Sur* area expressed that the region has been engulfed in conflict since the entry of a large scale mine. When the large scale mining company entered, the medium scale miners refused to leave and decided to arm themselves. The IP leaders believe that a war will break out soon between the private armed formed (run by the ex-military and NPA personnel) and the local medium scale miners. Brutal murders are quite common in the area leading to a culture of silence.

IP leaders (Bai Era and Apo Marshal) expressed that their communities have been affected by a geothermal project which has contributed to the destruction of the environment, similar to the issues seen with extractive industries. The geothermal project has resulted in an enormous amount of homelessness due to forced relocations.

There have been occurrences of extreme human rights violations related to mining operations. Some cases include detainment, harassment, threats, and fabricated judicial cases.

SALIGAN (Sentro Alternatibong Lingap Panligal) says that the requirements for community development, while required by the law, are not adequately met in actual practice. In particular, the level of technology transfer between foreign companies and the local population is insufficient.

Economic Concerns

The common theme for the anti-mining CSO groups is pushing the agenda of welcoming the mining industry by passing the new alternative mining bill. Many of the anti-mining groups do see large economic benefit for the Philippines as long as there is an equitable sharing of the proceeds from mining.

Some signs of mining operations empowering the community are that mining related businesses creates opportunities for communities. In order to maximize the economic contribution of mining in a way that it transforms the lives of the people directly affected, more decision making power and money should be allocated to local government (LGU).

According to the *IP leaders from the Zamboanga* region the only economic benefit the area gained is additional infrastructure and services companies offered to the residents. The prices have risen with wage increases such that the overall life style benefit is minor. In the Zamboanga region, people have left their farms to work for the mining companies because of better pay, and the overall agricultural production of the area has declined.

Environmental Concerns

ATM (one of the most extreme Anti-Mining groups the team interviewed) stresses that it's not possible to mine without endangering agricultural process and that two thirds of ancestral land can be displaced

mining operations. They are also recommending no-go areas for mining depending on the number of watershed, indigenous population, and availability for the land to be used for other purpose.

AFRIM is opposed to the small scale mining operations on both environmental (toxic chemicals used, waste like sulfur dumped into rivers) and health (use of toxic chemicals without proper handling techniques) bases.

Since all interested parties use data to their own interest the anti-mining group claim that the possible benefits from having mining companies will not offset the environmental degradation that will result due to mining. Especially, they noted, when inter-generational environmental responsibility is taken into consideration.

5.04 Government Officials

Although the national government has yet to define an official position on mining through an executive order or presidential decree, most government representatives seem to take a de facto position in favor of mining.

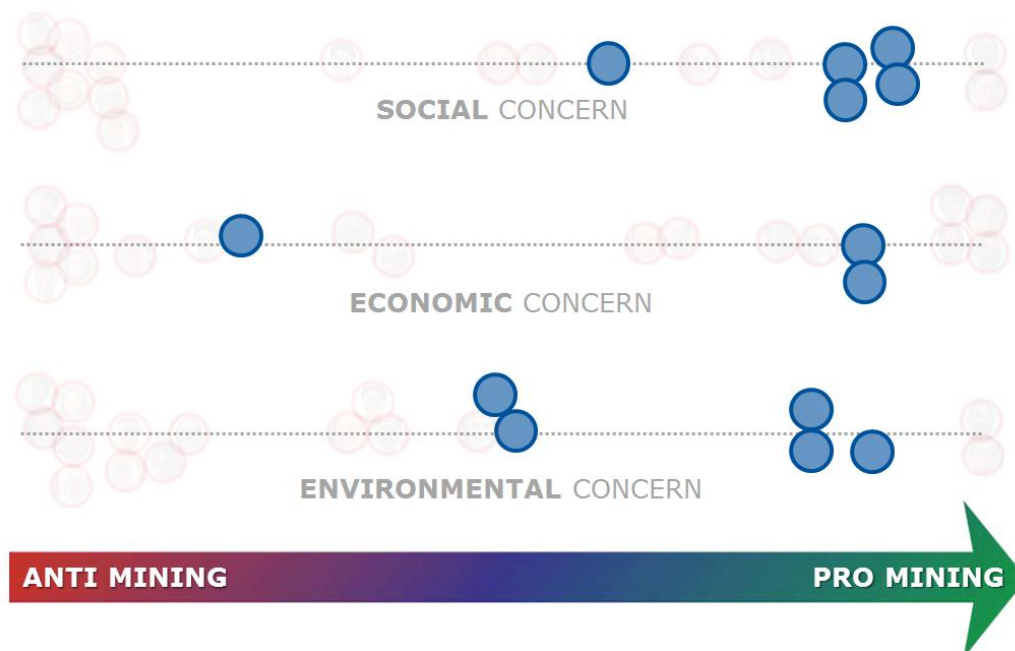


Figure 15: Positions of Government Officials

Social Concerns

The Mines and Geosciences Bureau says the lack of reliable mapping of ancestral domains and IP communities is a problem that has been identified as further complicating the problem that comes with licensing. MGB proposes for the channeling of social development programs to go through the national

government rather than the local government. These measures are expected to address the problem of corruption the office believes is rampant at the local level and allow for better regulation

Economic Concerns

Mayor Musali (Columbio Region) is diplomatic in his position in mining. The mayor believes the Columbio region itself will not gain directly from Tampakan mining operation but views it as an opportunity to grow their own economy by offering products and services to miners.

Environmental Concerns

The *Mines and Geosciences Bureau* office asserts that all the large scale mining operations in their region are fully environmentally regulated. The MGB inspection team examines the mining company's compliance in environment, social, health, and safety regulations. MGB is also planning a new census project by the end of the year to estimate the number of small scale miners in the region. MGB (Region 11) will estimate the daily production and the mineral contents for small scale mines to properly regulate all scale of mining.

The *MGB* believes that problems seen currently in the mining industry are because they are still haunted by past disasters. The MGB states that they are very stringent with handing out licenses because in the past year out of the 68 people that applied for a license 51 have been denied. Large scale mines will only be approved when the proper environmental concerns have been addressed.

The *Governor of South Cotabato* is for mining but only where the social and environment costs were taken account for. For example, the governor was against the Tampakan mine because of the scale and the environmental impacts. He was in favor of mining operations that were reasonable and could be decided upon on a local level. The governor actually went about closing down local small scale mines that were not regulated. He also looked at the alternatives to mining when examining the options presented.

Mayor of Columbio has not observed any mining operations that he believes to be responsible. He believes that small scale mining is highly pollutive. He desires to see more planning done prior to mining permit approval.

To minimize the jurisdictional problems between the national and the local government units MGB is supporting the new Executive Order which has been proposed. The executive order will focus on regulating small-scale and illegal mining to reduce the environmental externalities of mining.

5.05 Mining Companies

It would be natural to expect that the mining companies themselves would be uniformly in favor of mining. However, some individuals from within those organizations took a more moderate view and expressed concerns along specific dimensions.

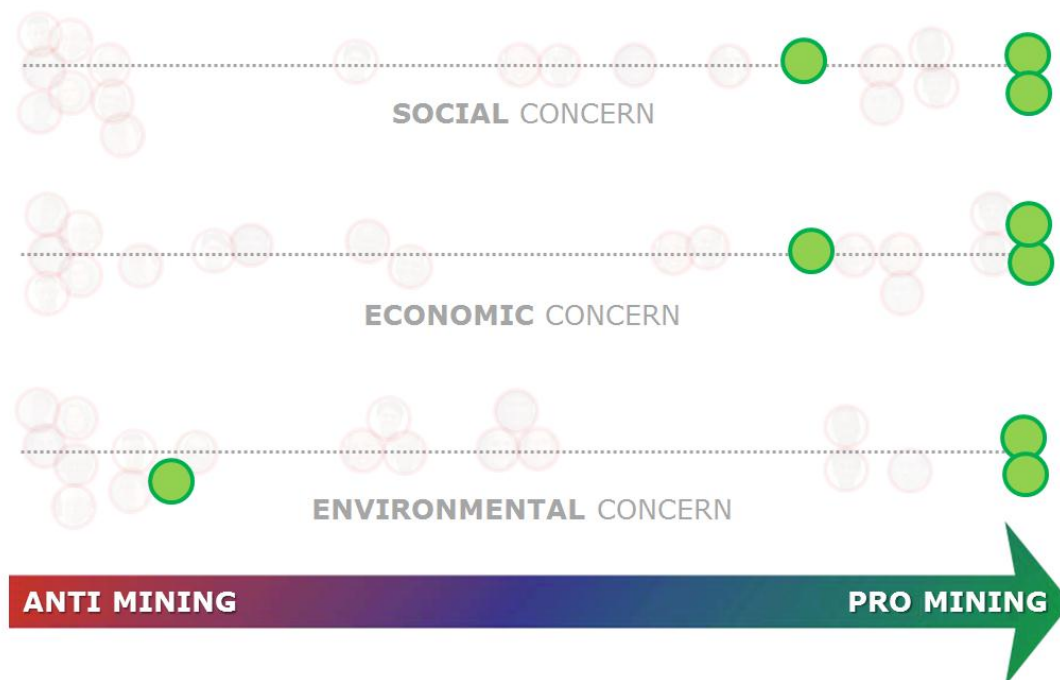


Figure 16: Positions of Mining Company Representatives

Social Concerns

The CSR representative for *Pantukan Mine* highlighted the importance of building a relationship to properly disclose the effects of mining to the community leaders for the buy-in. It takes about 2 to 3 years to receive the agreement from the indigenous group.

In terms of meeting its environmental and social development requirements, *Philex Mining* claims that invests a lot more than is legally required. Furthermore, it has health, education, livelihood and public infrastructure programs worth 172.7 PHP which it has made accessible to its employees, their dependents and neighboring communities.

Philex also claims that it usually employs people from the area and assists their dependents or other community members improve their livelihoods by supporting and strengthening their already existing economic activities or designing new ones for them.

Consultation with communities is usually conducted house-to-house. While this might ensure the participation of a larger number of community members, it might also expose communities to biased (pro-mining) information rather than an objective explanation of the plan.

So far *Philex* has not been met with cases related to ancestral domains or where people had to be displaced since most of the mining sites, are in the mountains. *Philex* did not report that it had experienced problems with overlapping licensing with or encroaching of small scale miners. Their representative also indicated that mining on ancestral domain lands is illegal according to current regulations.

Economic Concerns

Indey Arcenas (Sr. Advisor at the Mindanao Business Counsel and advisor to the President of Philex Mining Company) and representatives from Chamber of Mines said that large scale mining companies are easier to monitor than small scale miners. They argue that the government should encourage large scale mining and strictly regulate the small scale mining operations. Furthermore the communities are fearful of what the environmental consequences or loss of resources might surmount to in due time.

Pantukan mine increased employment of the community by hiring about 350 locals for their mining operation.

Environmental Concerns

The *Chamber of mines* is an organization of 23 of the 31 large scale miners. To their organization responsible mining includes concern for (in order of importance) economic growth, environmental protection, social equity, and good governance. Their current goal is to promote responsible mining. Their belief is that mining becomes the de facto government in conflict zones since there is little government involvement. They also hold the belief that large scale mining is a better mining practice than small scale since it is regulated and the environmental effects are monitored and understood.

When it comes to environmental sensitivity *Philex Mine*, prides itself with the fact that it plans a post-mining environmental revitalization program before it starts mining. Reforestation programs in Padcal and Silangan completed mining projects are mentioned as examples.

6. Comparative Practices

This section several common practices in connection with the mining industry, both within the Philippines and abroad. Taxation and regulatory practices are discussed followed by voluntary practices of the mining companies themselves.

6.01 Taxation Practices

One of the more dividing issues surrounding mining is the share of profits that mining provides to the public in the form of taxes. Pro-mining organizations routinely cited that they paid over 50% of their profits to the state in the form of taxes. Anti-mining organizations claim that there are too many holidays, and that the code does not call for a large enough tax to be taken from the mining profits.

These two differing views strongly contradict each other. Both have some merits but until it is compared to other country norms, it is difficult to determine what direction the Philippines' tax code move or if it should move at all. This section looks to offer information around comparative countries tax regime in the mining industry. However, it does not seek to offer what the rate should be, but rather to offer some context around how taxes of Filipino mining operations compare to that of other countries. Furthermore, it is assumed that all tax information is collected in the same manner from country to country.

The information offered here is around the tax code, not the actual taxes collected. It is important to note this as there is a stark difference as to how to approach an issue on code versus an issue on

collection. Concerns with collection lie upon the state's collection agencies while issues of code lie within the legislative powers of the state. Individuals must understand this difference when examining the mining industry so as to correctly position their concerns with the government agencies.

It should be noted that the source of this data is an independent academic. Therefore, it has been assumed that the reported data does not reflect a pro- or anti-mining agenda.

Income Tax Rate

The income tax rates of mining companies in 19 different countries are listed in Table 8. The Philippines rate of 32 percent is just below the median of 33 percent and within one standard deviation of the average rate of 31 percent. Thus, it appears that the income tax codes in the Philippines are similar to those of other countries.

Table 8: Comparative Income Tax Rates²³

Country	Corporate income tax rate
Argentina	35% (+nationalization)
Bolivia	25% (a surtax may also apply in some cases)
Chile	35% (0.5% of previous year turnover is the minimum tax)
China	15% (two elective regimes are available)
Ghana	35%
Greenland	35%
Indonesia	30% (previous generation COWS range from 22 ½ to 48%)
Ivory Coast	35%
Kazakhstan	30% (excess profits tax may apply if IRR on net income > 20%)
Mexico	35%
P.N.G.	35% for large (SML) mines, 25% for most other mines
Peru	30%
Philippines	32%
Poland	2000, 30%; 2001 & 2002, 28%; 2003, 24%; 2004+, 22%
South Africa	30% for other than gold; formula > 30% for gold mines
Tanzania	30%
Uzbekistan	33%
Zimbabwe	35%

Import -Export Duties

Table 9 depicts import duties that are incurred on foreign equipment used in mining and on minerals that are exported. Of the nineteen countries, none has an export duty incurred on minerals. Nine of the nineteen countries have an import tax on equipment ranging from 0.75 percent to 35 percent. The Philippines has a three percent tax on all imported equipment. This indicates that the Philippines are less favorable than many other countries who don't have an import tax and several of those that do have an import tax.

²³ Source: Otto, James M. Mining Taxation in Developing Countries. United Nations Conference on Trade and Development. November 2000. <http://r0.unctad.org/infocomm/Diversification/cape/pdf/otto.pdf>

Table 9: Comparative Import and Export Duties²⁴

Country	Typical import duty	Typical export duty
Argentina	none ²⁵ , *	none
Bolivia	5%	none
Burkina Faso	11%*	none
Chile	10%*	none
China	none	none
Ghana	exempt*	none
Greenland	none	none
Indonesia	none	none*
Ivory Coast	0.75%*	none*
Kazakhstan	none	none
Mexico	35%*	none
Philippines	3%*	none
P.N.G.	none*	none
Peru	12%	none
Poland	9%	none
South Africa	none*	none
Tanzania	none	none
Uzbekistan	none*	none
Zimbabwe	5%	none

*Typical for a large mine. There may be exceptions.

Depreciation Methods

There are many calculation methods that governments can adopt to calculate the annual tax deduction due to capital equipment depreciation. Common methods are based on the expected life of the equipment, the expected life of the mine, on a straight-line (equal annual deductions) basis, percentage basis, or a declining balance basis. Many governments recognize this capital intensity by allowing the taxpayer to claim large depreciation deductions in the early years of the project, i.e., accelerated depreciation. The Philippines allows for twice the straight line depreciation. This implies that there are tax benefits for mining companies that are not available for other companies in other industries. Other countries have similar accommodations, but it seems the Philippines is more favorable than most.

²⁴ Source: Ibid.

²⁵ “none” mean that there is no export duty on most minerals, or that most minerals are zero-rated, or that most minerals are exempt from duty.

Table 10: Comparative Depreciation Methods²⁶

Country	Accelerated method available for some capital equipment (Yes or No)	Example
Argentina	Yes	3 yr. straight-line
Bolivia	Yes	8 yr. straight-line
Burkina Faso	Yes	useful life minus one year
Chile	Yes	3 yr. straight-line
China	Yes	10 years
Ghana	Yes	75% of expenditure, 50% declining balance thereafter
Greenland	Yes	the company may decide the pattern of rate and period
Indonesia	Yes	10 yr. straight-line or 20% declining balance
Ivory Coast	Yes	method of acceleration depends of life of equipment
Kazakhstan	Yes	25% declining balance method
Mexico	No	
P.N.G.	Yes	150% declining balance over 7 years
Peru	Yes	5 yrs. straight line
Philippines	Yes	twice the normal straight-line rate
Poland	Yes	5 yrs. straight-line
South Africa	Yes	expensed in 1 st year of production
Tanzania	Yes	12.5% straight-line
Uzbekistan	No	8% straight-line
Zimbabwe	Yes	expensed in year incurred or 1 st year of production

Tax holidays

Tax holidays are in place to allow companies to not pay taxes in the initial years of an investment. Seven of the nineteen countries offer a tax holiday for mining companies. The Philippines is one of the seven offering a holiday to companies operating under an FTAA (refer to Section 0 for an explanation of the requirements for an FTAA). Thus, companies operating under an FTAA have more favorable tax holidays in the Philippines than in comparable countries. Note that no company in the Philippines is currently producing under an FTAA.

²⁶ Source: Ibid.

Table 11: Comparative Tax Holiday Policies²⁷

Country	Tax holiday available (Yes or No)	Description
Argentina	Yes?	An operation may be exempt from most taxes except land area rent for 5 years from the time of discovery – however, for most mines, the exemption is not realized.
Bolivia	No	
Burkina Faso	Yes	Exploration phase. The holiday includes tax on commercial and industrial profits and the minimum lump sum tax, VAT, business license tax, payroll, and apprenticeship tax.
Chile	No	
China	Yes	For other than precious or rare earth mines with foreign investment scheduled to operate for at least 10 yrs.; exempt from income tax in yrs. 1 and 2, 50% reduction yrs. 3-5.
Ghana	No	
Greenland	No	
Indonesia	No	
Ivory Coast	Yes	mines have 5 yr. income tax holiday from commencement of exploration
Kazakhstan	No	
Mexico	No	
P.N.G.	No	
Peru	Yes	no asset tax is applied to pre-operational mines until the 2 nd subsequent year after the one in which the first sale takes place
Philippines	Yes	FTAA mines may be exempt from most federal taxes for up to 5 years
Poland	No	
South Africa	No	
Tanzania	No	
Uzbekistan	Yes	2-7 years. Holiday includes profits tax, property tax, land tax
Zimbabwe	No	

Comparative Returns and Total Effective Rate

The value a company will place on the mine is the internal rate of return (IRR) from the initial investment. This is a means to compare different investment opportunities. The table below shows the IRR in relation to the effective tax rate. In this analysis it is shown that the Philippines are in the second-

²⁷ Source: Ibid.

lowest quartile of countries in terms of overall tax rate. Twenty-six countries were examined in this analysis.

Table 12: Comparative Returns and Total Effective Rate²⁸

Country	Foreign investors' internal rate of return (%)	Total effective tax rate (%)
Lowest taxing quartile		
Sweden	15.7	28.6
Western Australia	12.7	36.4
Chile	15.0	36.6
Zimbabwe	13.5	39.8
Argentina	13.9	40.0
China	12.7	41.7
Second lowest taxing quartile		
Papua New Guinea (2002)	13.3	42.7
Bolivia	11.4	43.1
South Africa	13.5	45.0
Philippines	13.5	45.3
Indonesia (7 th COW)	12.5	46.1
Kazakhstan	12.9	46.1
Second highest taxing quartile		
Peru (2003)	11.7	46.5
Tanzania	12.4	47.8
Poland	11.0	49.6
Arizona (US)	12.6	49.9
Mexico	11.3	49.9
Greenland	13.0	50.2
Highest taxing quartile		
Indonesia (non-COW)	11.2	52.2
Ghana	11.9	54.4
Mongolia (2003)	10.6	55.0
Uzbekistan	9.3	62.9
Ivory Coast	8.9	62.4
Ontario (Canada)	10.1	63.8

6.02 Environmental Regulation Practices

One of the strategic ways of minimizing or preventing environmental ramifications of mining is at the planning phase. For the most part this can be done when assessing the Environmental Impact Assessment mining companies are required to provide. Figure 17 illustrates some basic elements of good EIA practice.

²⁸ Otto, James, Craig Andrews, Fred Cawood, Michael Doggett, Pietro Guj, Frank Stermole, John Stermole, and John Tilton. *Mining Royalties: A Global Study of Their Impact on Investors, Government, and Civil Society*. The World Bank. 2006. <http://siteresources.worldbank.org/INTOGMC/Resources/336099-1156955107170/miningroyaltiespublication.pdf>

THE FLOWCHART BELOW DEPICTS THE BASIC ELEMENTS OF GOOD EIA PRACTICE:

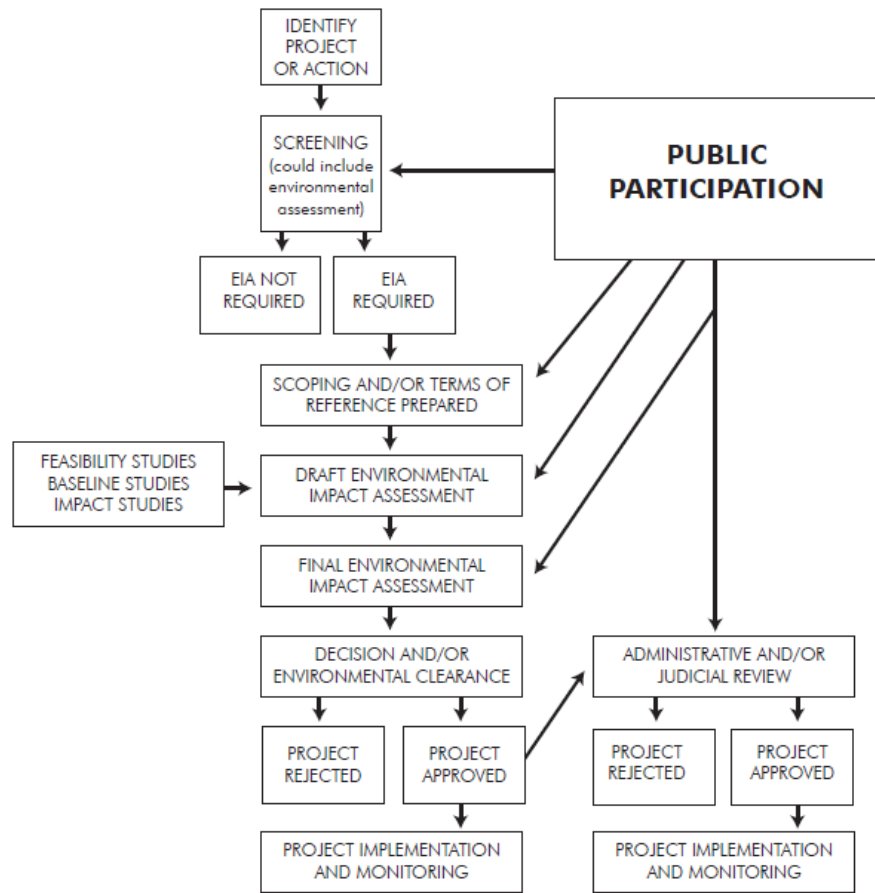


Figure 17: Basic Elements of Good EIA Practice²⁹

Recommendation from multiple environmental think-tanks, research institutes and the practice from countries “successful” in mining suggests that the EIA should not only be about the general description of the mining site and mining activity, but it should also **clearly state the biological, physical and social effects of mining**^{30,31}. In addition, the EIA should include a “**no action**” assessment which is “An assessment of the environmental and social impacts of a future, in which the proposed mining project does not take place”³² that allows for policy makers to conduct a cost-benefit analysis and make informed decisions.

It should also include a section on **mining closure and reclamation**, stating what the plans are for mine closure. Ideally, it should state how the mining site will be rehabilitated to its pre-mining condition, or

²⁹ Guidebook for evaluating mining project EIAs. Environmental Law Alliance Worldwide. June 2010. p. 21

³⁰ Environmental Guidelines for Mining Operations. United Nations Department of Economic and Social Affairs (UNDESA) and United Nations Environment Program Industry and Environment (UNEP)

³¹ Guidebook for evaluating mining project EIAs. Environmental Law Alliance Worldwide. June 2010.

³² Guidebook for evaluating mining project EIAs. Environmental Law Alliance Worldwide. June 2010. P3

who will take care of it. Because the far reaching environmental consequences of mining happen after the mining closure, the lack of clarity on rehabilitation plans or who will be responsible for them would often times leave the communities and the government to deal with the issue. One form of securing finances for mining closure and reclamation is through **reclamation bonds, irrevocable letter of credit from a bank, performance bond (bond issued by an insurance company), trust fund, parent company guarantee, pledging of assets etc.**³³ These approaches can also serve a role in curbing the environmental enforcement deficit.

Most developing nations require that open-pit mining, which is common in the Philippines, be backfilled, re-contoured and re-vegetated to rehabilitate the land to its initial setting. However, developing countries with similar archipelago nature as the Philippines, namely Indonesia and Malaysia face problems in enforcing and monitoring the mining reclamation and closure plans³⁴³⁵.

Assessment of the Reclamation and Closure Plan should consider questions such as:

- Does the plan include commitment of the mining company to pay for closure of the mine site and cleanup of the environmental contamination associated with the mine during the active phase and the closure phase of the mining project?
- When will the company's financial commitment be provided? Before the mining commences? In what form? Does it specify the amount of money available for the closure phase?

Another significant process in the evaluation of the EIA is the participation of the concerned citizens (refer to Figure 17). This resonates with Principle 10 of Rio Declarations, which states that "environmental issues are best handled with participation of all concerned citizens"³⁶. While countries like Malaysia have chosen to equate public participation with participation through representation, the Philippines has the legal provisions that require mining companies to consult with communities before their mining activities. Nonetheless, the lack of law enforcement, bribery and manipulation of the process misrepresent the information provided in the EIA and limit the participation of communities.

While this falls under the framework of the rule of law and accountability, countries like Indonesia and Malaysia do not offer best practices on how to manage this problem better. They too face similar problems^{37,38}. However, this is an area where NGOs and CSOs can demand for public access to the EIA and similar documents and assist communities in making their voices heard.

³³ Environmental Guidelines for Mining Operations. United Nations Department of Economic and Social Affairs (UNDESA) and United Nations Environment Program Industry and Environment (UNEP) p. 19

³⁴ Memnon, Ali. Devolution of Environmental Regulation: EIA in Malaysia. UNEP EIA Training Resource Manual.

³⁵ Resosudarmo, Budy; Resosudarmo, Ida Aju Pranja; Sarosa, Wijonyo and Subiman, Nina. Socioeconomic Conflicts in Indonesia's Mining Industry. The Henry L. Stimson Center. Washington DC 2009. P 41-45

³⁶ Guidebook for evaluating mining project EIAs. Environmental Law Alliance Worldwide. June 2010. p. 84

³⁷ Tan, Alan Khee-Jin. Environmental Laws and Institutions in Southeast Asia: A Review of Recent Developments. Singapore Year Book of International Law and Contributors, 2004.

³⁸ Memnon, Ali. Devolution of Environmental Regulation: EIA in Malaysia. UNEP EIA Training Resource Manual.

6.03 Practices by Mining Companies

Two extractive companies in the Philippines, Semirara and Philex have demonstrated a number of notable practices in their operations.

Semirara

Semirara Mining Corporation is the only-large scale coal producer in the Philippines and it is engaged in surface open cut mining of thermal coal on Semirara Island (55 sq. km), Antique province³⁹.

Semirara's corporate social responsibility is based on five programs (5E's): electrification, education, environmental protection and preservation, employment, and economics. By partnering with the local electric cooperative, it has provided subsidized electric services to 92 percent of the 2700 planned households as of 2009⁴⁰. The company tries to promote education by supporting schools in the island through enhancing their infrastructure and material capacity for a fruitful teaching-learning experience.

When it comes to employment, the company is the "single biggest employer in the island"⁴¹. To meet the high-skill labor requirement of the business, the company founded the Semirara Training Center in 2006 where by out-of-school youths are provided with vocational skills training. Most of the graduates of the center then get employment opportunities at the company. In addition, the company offered trainings in plumbing, masonry, building wiring and rough carpentry participants of which were hired for the construction of housing units for the company's employees.

Semirara also has livelihood programs around fishing, farming and livestock production aimed at providing employment opportunities for communities around the mine. Its environmental protection and conservation programs focus on inland reforestation, mangrove reforestation, and flora and fauna protection. The company aims to plant a million trees in the whole island by 2012. As of 2009, 205.5 hectares were already planted and maintained⁴². It maintains a sanctuary that protects 1180 pieces of giant clams of different species. The Company is developing a marine sanctuary in the Dalit and Buena Suerte group of islets with an area of 530 hectares⁴³. Maricultural and aquacultural projects including giant clams, abalone and sea cucumber culture and being introduces to the community in collaboration with the Southeast Asia Fisheries and Development Center (SEAFDEC). Unong mine, the first open pit that was operational from the 1980s until 2000 is now rehabilitated with a lake and a diversified marine ecology.

From these facts and interview with people who have visited the rehabilitated parts of the island, it is clear that working in consultation with the communities that will be affected by the mining, before, during but especially after the mine closure is a crucial aspect of caring for the community and the

³⁹ Semirara Mining Corporation. About Semeirara. Retrieved April 01, 2012.

<http://www.semiraramining.com/AboutSemirara.php>

⁴⁰ Semirara Mining Company. Corporate Responsibility report 2008.

⁴¹ Semirara Mining Company. Corporate Responsibility report 2009report 24

⁴² Semirara Mining Company. Corporate Responsibility report 2010P. 25

⁴³ Semirara Mining Corporation. About Semeirara. Retrieved April 01, 2012:

<http://www.semiraramining.com/CSR.php?ID=41>

surrounding environment. Promoting environmental sustainability should not only be expected before or during the mine life but it should be particularly thought of for after the mining closure. A good way of ensuring this is addressed is during the evaluation of the EIA process as mentioned earlier.

Philex

Philex currently has only one operational mining site for gold and copper. Philex uses floatation processing which does not require mercury or cyanide for processing and is hence environmentally less hazardous.

In terms of meeting its environmental and social development requirements, Philex claims that it invests beyond the legal requirement. Currently, it has health, education, livelihood and public infrastructure programs worth 172.7 PHP which it has made accessible to its employees, their dependents and neighboring communities.

Under the health sector, Philex has built the Sto. Nino Hospital in Padcal which serves 350 patients per day on average. In Bulawan, it supports medical missions and medicine distribution while it similarly supports medical and dental missions in Silagan.

The livelihood projects include community business and technology centers, organic farming, aquaculture, honeybee keeping, mushroom production, loom weaving (in Padcal); fingerlings dispersal (Bulawan); and skills training, livestock production (in Silagan). Even though these projects are mainly designed for the dependents of employees, they also serve the neighboring communities.

Building hospitals, schools, farm to market roads, bridges, water systems, telecommunications and electricity are all incorporated in the infrastructure scheme of Philex mine in all three sites.

When it comes to environmental sensitivity the company prides itself with the fact that it plans a post-mining environmental revitalization program before it starts mining. Reforestation program in Padcal mining project, where it restored a forest cover of 2,090 hectares with seven million trees is mentioned as examples. Philex is also proud of the restoration of Sityp Lalab and Mt. Emily in Sibutad, Zamboanga del Norte, including the former central processing zone and open-pit and waste dump area.

Philex also claims that it usually employs people from the area and assists their dependents or other community members improve their livelihoods by supporting and strengthening their already existing economic activities or designing new ones for them. In order to combat the lack of specialized skills the company requires, Philex gives out college scholarships to students from mining communities and later offers employment to some of these students.

Philex conducts its consultation with communities on a house-to-house basis. While this might ensure the participation of a larger number of community numbers, it might also expose communities to biased (pro-mining) information rather than an objective explanation of the plan.

6.04 Implications

Mining tax practices in the Philippines seem to be similar to that of those of other countries. Developing countries also tax in the same manner with similar levels of taxation. This implies that there could be information sharing to be done to both mining companies and anti-mining advocacy groups around the fairness of mining. The reality seems to be that a change to tax code is not necessary but perhaps only changes to the tax enforcement. Other countries also struggle with similar issues around the environment, community displacement and community involvement in decision making. There are a few companies who have had successes in the Philippines who should be used as models to be replicated.

7. Recommendations for the CRS Peace-building Program

As CRS continues to work in communities that are impacted by mining, CRS should formulate a strategy that will allow the organization to effectively achieve its goal of serving vulnerable populations in those communities. For example, there may be opportunities for CRS to facilitate dialogue between local communities and large-scale mining companies who would like to seek mutually beneficial relationships with communities, but lack the skills and local knowledge to do so. Alternatively, CRS could work with communities who already engage in small scale mining to ensure that these mining activities are done in an environmentally, economically, and socially sustainable manner. Finally, CRS may choose to focus efforts on supporting industries that provide an alternative to mining for communities that choose not to participate in the mining industry. The appropriate strategy will be consistent with CRS's vision and mission and should capitalize on the unique capabilities of the CRS Philippines to meet needs that cannot be or are not met by other organizations working in Mindanao.

7.01 Criteria for Setting a Strategic Direction

The existing and potential impacts of mining on communities in Mindanao are significant in both magnitude and scope. As a result, any number of potential responses to the mining industry could present themselves as possible courses of action for an organization such as CRS. In selecting an appropriate course of action, CRS must be mindful of its own mission and its core competencies.

CRS Mission

The CRS mission statement includes a mandate to "Promote human development by responding to major emergencies, fighting disease and poverty, and nurturing peaceful and just societies."⁴⁴ In support of this mission, CRS Philippines is divided into three distinct programs: emergency response, agriculture, and peace building.

The project to explore the role that mining plays within Mindanao communities was initiated by the CRS Philippines peace building program, and any response to mining by CRS should contribute towards the mission increasing CRS's ability to building peace. Any action by CRS that serves to exacerbate the conflict in Mindanao should absolutely be avoided, and any action that does not have an impact on peace is not a good use of CRS's resources.

⁴⁴ <http://crs.org/about/mission-statement/>

CRS's mission statement does not include any provision for political advocacy. This is especially important with regards to mining, given the highly polarizing political environment that has arisen with regards to mining regulations and permits, as well as the vocal stance that the Catholic bishops in the Philippines have taken against mining. CRS works closely with the local Catholic bishops, but is an agency of the United States Catholic Bishops Conference and works in the Philippines at the invitation of the Philippines Bishop's Conference. Thus, CRS should not advocate on behalf of the Catholic Church, and should especially avoid any action that could be viewed as opposing the position of the local Catholic bishops.

By refusing to advocate either for or against mining in an environment that has become highly polarized, CRS is in a unique position to advocate for vulnerable individuals and communities. Although CRS is neutral with respect to the pro-mining or anti-mining positions, CRS has a strong bias towards the poor, the vulnerable, and the voiceless. This is in keeping with the goals and mission of CRS as an international Catholic aid organization.

CRS Competencies

In selecting a strategic response to mining, CRS must also be mindful of its own capabilities with an awareness of how those capabilities might overlap with the needs of local communities and the capabilities of other NGOs operating in Mindanao. CRS should focus efforts on meeting needs of local communities that would not be more appropriately met by other organizations. It may be helpful to visualize potential actions and strategies in terms of three overlapping circles,⁴⁵ as shown in Figure 18. Each numbered area on the figure is discussed below.



Figure 18: Three Circle Model of CRS Core Competencies.

⁴⁵ Davis, James H. and Joel E. Urbany. *Grow by Focusing on What Matters: Competitive Strategy in 3 Circles*. Strategic Management Collection. Business Expert Press. 2010.

Area 1: Competencies that are Unrelated to Mining

CRS has several key competencies and strengths that it uses to accomplish its mission in the Philippines. However, not all of these competencies are relevant or helpful in responding to the issues raised by mining. For example, CRS has excellent emergency response capabilities that do not necessarily apply to formulating a proactive response to mining. Some of CRS's key strengths may actually even create obstacles to formulating a successful strategy. For example, CRS's connection to the Catholic Church, although tremendously valuable in forming relationships, opening doors, and setting priorities for the organization may be a hindrance to any attempt by CRS to engage with mining companies, given the vocal position the Catholic Church in the Philippines has taken against mining.

Area 2: Needs Met by Other NGOs

There is a very clear need for advocacy and lobbying efforts to ensure that all voices are heard while the government moves towards formulating a clear and consistent policy towards mining. It is also important that there be individuals on the ground ensuring that existing regulations are being met, and to observe and report violations to government agencies and other interested parties. However, numerous NGOs are working to meet these needs and have developed strong competencies in these areas. It is not necessary for CRS to seek to reinvent the wheel by competing with organizations that are already well-positioned to undertake these activities.

Area 3: Needs That Cannot be Met by an NGO

The regulatory environment around mining is unstable and fairly corrupt in many areas. Although this situation is not ideal, there is little CRS or any NGO can do to change the regulatory environment and legal structures. In considering responses to mining, both the legal/regulatory environment and the natural environment must be taken as constraints to work within, rather than problems that CRS could be in a position to solve.

Area 4: Needs that Can be Uniquely met by CRS

These are the areas in which CRS should focus its efforts: identified needs of the community that CRS is better able to meet than any other NGO. Some of CRS's unique strengths and capabilities include its neutral status within the pro- and anti-mining debates, its peace building capabilities, its experience with planning for social development, and its experience of creating cooperative enterprises for community economic development.

7.02 Recommendations

Based on CRS's mission and competencies, three different vectors of activity present themselves as potential strategic directions CRS Philippines might choose to pursue with regards to mining in Mindanao. Since the self-determination of local communities is critical, different strategies may be appropriate in communities that relate to the mining industry in various ways, as summarized in Table 13. Each of these strategies is discussed in further detail in the sections below.

Table 13: Strategic responses to mining activities.

Relation of Community to Mining	CRS Strategic Response
Mining companies enter the communities from the outside (large scale)	Facilitate dialogue
Individuals from within the communities choose to engage in mining activities (small scale)	Organize co-ops and structures for self-monitoring
The communities choose to not to allow mining to occur	Explore alternatives to mining

Dialogue Facilitation

Many of the mineral-rich areas of Mindanao are within the ancestral lands of indigenous people (IPs). Based on best practices and existing laws, mining companies must obtain the free and prior informed consent (FPIC) of indigenous people before commencing mining operations on their ancestral lands. The process by which large mining companies have obtained FPIC has been fraught with misunderstanding and, in many cases, outright corruption. Regardless of the intentions of the mining companies involved, many indigenous people believe that their ability to participate in decisions that will have a lasting impact on their communities has been compromised. Even in cases where local communities have chosen to allow mining, once mining companies have entered their communities, they often feel that the promised benefits of mining are not realized. The resulting perception of injustice can lead to deep resentment and even to armed conflict. CRS and its partners in Mindanao might consider several types of activities that could mitigate these challenges and thereby reduce the potential for violence.

Table 14: Mutual benefits of transparent dialogue with mining companies.

Outcome of Dialogue	Benefit to Mining Companies	Benefit to Communities
Mining companies present benefits of mining to communities	Greater possibility for community buy-in	Greater opportunity to make decisions that can harness the benefits of mining
Mining companies present disadvantages of mining to communities	If communities know ahead of time what damages and risks are associated with mining, they are less likely to take action against the mines when negative effects become apparent.	Communities can make an informed decision about whether the risks of mining are worth the potential rewards.
Communities present specific concerns to mining companies	Mining companies can reduce costs by focusing risk mitigation on the issues that are most	Mining companies can respond to the needs and concerns that they are aware

	important to the community.	of.
Communities communicate their skills and capabilities to mining companies	Mining companies can determine if the skills it needs for mining operations are available in the community, or if locals could be trained for t a lower cost than bringing in labor from outside.	Greater opportunities for training and employment of community members.

Dialogue Training

The current debate around mining has become so polarized that many anti-mining advocates do not believe that mining companies have any interest in respecting the rights of indigenous populations. Given the history of human rights violations by mining companies in the Philippines, this perspective may be understandable. However, even in this highly polarized environment, there is a spectrum of perspectives on mining, both within the anti-mining advocacy community and within the mining community itself. Thus, although there is certainly a multitude of irresponsible, uncaring actors within the mining space, there may also be mining companies whose failure to properly seek the free and prior informed consent of indigenous people is not a result of intentional deception, but rather an inability to create meaningful dialogue in a way that is consistent with the traditions, customs, and experience of the indigenous people.

If CRS can identify mining companies that would like to seek a more transparent and open dialogue with communities, and partners with the credibility and ability necessary to help them to effectively interact with IP communities, this could be a benefit to both the mining companies and the IP communities, as summarized in Table 14. Note that effective dialogue would include full information about both the benefits and disadvantages of mining to an IP community.

CRS could work with IP communities to identify and codify their decision making processes in terms of their customary laws and any other laws which they may consider to be applicable to them. By codifying the process by which communities make decisions, they may limit the ways in which communities can and have been exploited regarding the free, prior and informed consent (FPIC). In addition, such a codification can help mining companies to better understand the communities' expectations with regard to community engagement.

Guidelines need to be developed on what is the best way of engaging with communities. Whereas there are some organizations that are assisting IPs in the FPIC process, there is insufficient support on the ground for IP groups and mining companies looking to engage properly with communities.

CRS could build on the structure developed by the world resources institute on how to engage with communities. The consultation model will be discussed below.⁴⁶

Step 1. Prepare Communities Before Engaging: During the design of the project, mining companies may ask communities to make decisions affecting their future, but communities may not understand the full implications of the project until after construction begins. Some members of the community may see a proposed project as an opportunity to gain community development benefits, while others oppose the project because of potential environmental and social impacts. Communities can be prepared to make informed decisions through

- Access to information, including legal and technical information;
- Training for community representatives on processes involved in community engagement, environmental and social impact assessment, and project development.
- Site visits by community representatives to similar projects.

Step 2. Determine the Necessary Level of Engagement: Choosing the appropriate level of engagement can lead to more effective decision-making and meaningful community input at the critical points in the project cycle. While one-way communication with communities can be cheaper and faster in the short term, two-way communication is more sustainable in the long-term. The following actions are associated with this step:

- Provide access to information before engagement.
- Engage communities before taking decisions.
- Respond to community input
- Negotiate to resolve identified issues

Step 3. Integrate the Community Engagement into Each Phase of the Project Cycle: Harmful environmental and social impacts, as well as community opposition, can arise at any time during the project. By engaging communities during each phase of the project cycle— a company can create stronger relationships with communities.

Companies should engage communities at each stage, including prefeasibility and feasibility, construction, operation, and decommissioning. Community engagement is particularly important during the construction phase because unanticipated issues may arise, regardless of the quality of previous community engagement, as local communities begin to experience rapid changes to their lives

Step 4. Include Traditionally Excluded Stakeholders: In some of the indigenous communities, extractive projects can influence the balance of political power in a community. Often groups excluded from a project's community engagement are those traditionally marginalized within existing community, local, and national politics such as women, ethnic, and nomadic groups.

⁴⁶ This principles are more fully discussed by the World Resource Institute in their paper titled [Breaking ground: Engaging communities in Extractive and Infrastructure Projects](http://pdf.wri.org/breaking_ground_engaging_communities.pdf)
http://pdf.wri.org/breaking_ground_engaging_communities.pdf

Traditionally excluded stakeholders can be included only when mining companies begin to identify these groups. When identifying impacted communities at the onset of a project, they should engage in a social assessment process that identifies gender, age, ethnicity, and other social groupings within each community. Each group identified may have different interests in the project.

To promote more inclusive engagement with marginalized groups, project proponents can use participatory mapping to identify how different groups rely differently on community resources and conduct separate meetings with different groups to create a setting where marginalized persons are comfortable speaking about the project.

Step 5. Gain Free, Prior, and Informed Consent: In extractive projects, it is risky for a company to assume that community engagement has automatically led to support for a project.

Rather, if local communities have opportunities to demonstrate their acceptance of a project, they are more likely to weigh the costs and benefits of the project, and to engage with the proponent in an informed way. Applying FPIC can have enormous reputational benefits, as it is the standard for enabling and ensuring full participation by communities in a project's design and implementation. FPIC is especially critical when a project proponent wants a community to relinquish a collective legal right.

Step 6. Resolve Community Grievances through Dialogue: Grievances can arise at any stage of the project cycle, and it is not possible to anticipate or resolve all of these problems during initial planning and design. Furthermore, seemingly minor grievances can be a part of broader systemic problems, and grievances that remain unaddressed can escalate into larger conflicts. Even small projects can change the power dynamics within local communities, which can create tensions and subsequent risks for the project.

Effective dialog can be created through three mechanisms: First, create access to an easy, low-cost way to raise grievances, such as through a designated office, company-community liaison officer, local NGO etc. Second, the grievance mechanism brings together communities and company decision-makers in dialogue, rather than either side attempting to resolve the issue unilaterally. Third, the Parties record all grievances and track all outcomes of the process.

Step 7. Promote Participatory Monitoring by Local Communities: Community engagement depends on community access to information. Without information on the proponent's project-related environmental and social performance, there is a risk that rumor and misinformation will replace factual evidence. Subsequently, community opposition may arise even if the proponent complies with its commitments.

Participatory monitoring can involve the following activities:

- Scientific sampling with community member present;
- Consultations with local community members;
- Review of the company's commitments in the environmental management plan and;
- The impact benefits agreement.

Some of the drawbacks and challenges to providing mining companies with training on how to better engage with communities are listed below.

- ***Finding a mining company willing to be fully transparent.*** Many mining companies may not see the advantages of transparent dialogue and would be unwilling to work with CRS's partners to engage with IP communities. This difficulty is exacerbated by the lack of respect that outsiders often have for indigenous people. Many companies do not believe that indigenous people are educated or intelligent enough to make an informed decision based on full information. Significant education of mining company representatives would be necessary.
- ***Finding a capable and willing partner.*** For the most part, potential NGO partners that have experience working within the context of IP communities have already taken a strong position against mining under all circumstances. It could be very difficult to find a partner organization that is willing to engage with a mining company. An organization that does seek to engage in this way could also lose credibility within the NGO community. Moreover, some NGOs, particularly those based in Manila or even Davao, might have a similar perception of IPs as that of the mining companies, and would thus be unwilling to trust communities to make independent decisions regarding mining, even with full information.
- ***Risk of Alienating Catholic Bishops:*** Any action by CRS that would be perceived as supportive of any mining company or mining operation could alienate Catholic bishops who have already taken a strong stance against all mining activities. This could present a major risk to all of CRS's other activities in the Philippines, since CRS operates at the invitation of the Catholic bishops.

Assisting in Investment Management

One common outcome of mining companies' engagement with local communities is a sudden, large influx of cash, either from payments to community members who work in the mines, or payments intended for the community as a whole as part of the mines' community development activities. While these community development payments are often touted by the mining industry as a major benefit of mining to local communities, they can have a neutral or harmful effect on the community if not properly managed.

Ideally, payments by the mines to the community should be invested in projects that will have a long-term benefit to the entire community, even after the mine has closed. This might include training to work more effectively in non-mining industries, or infrastructure projects such as roads, schools, and hospitals. Proper planning is necessary to ensure that money is invested in a way that will create sustainable community benefits. However, if communities are not prepared when the money comes, such investment is unlikely. CRS and its local partners can work with communities that are anticipating payments from mines to prepare plans for how they will ensure that the money is well-spent. Such a plan should include answer the following questions?

- ***Who will collect payments?*** A community member, leader, or group should be designated to collect payments from the mining company. Systems and structures should be put in place to ensure the accountability of this person or group to the community. Steps should be taken to

minimize the risk that the person who collects the payments keeps the money for his or her own benefit rather than using them for the purpose chosen by the community.

- ***How will the money be monitored?*** A person or group should be selected to oversee the use of the money by keeping track of who has it and how it is being spent. Systems and structures should be created to ensure the accountability of this person or group.
- ***What are the long-term needs of the community?*** The plan should include an inventory of the long term needs of the community and the type of investments that would be required for the community to meet its long-term goals. These needs should be prioritized based in the urgency of the need and the feasibility of addressing the need.
- ***What specific projects will be carried out?*** Specific projects should be identified that would meet the needs identified by the community. The planning process must include an assessment of how much each project would cost and how well it can be expected to meet a specific need.

The risks of taking on or facilitating that planning of potential uses for community development funds are less than the risks of engaging directly with mining companies. However, the Catholic Bishops and potential partner NGOs may still take issue with preparing communities for mining rather than actively working to stop mining companies from entering communities.

On a smaller scale, CRS and its partners could assist community member whose personal income increases as a result of mining operations. For example, CRS could provide training and workshops on responsible saving and investing. If community members employed by mines save their money rather than simply increasing their consumption, the risk of prices inflating together with increases in personal income might be mitigated.

Facilitate Self-monitoring and Co-operation between Small-scale Mines

In addition to the communities that are impacted by the entry of mining companies from the outside, many communities in Mindanao are impacted by small- to medium-scale mining operations by members of the community. Currently, there is little data collection around the number of small scale mines and their environmental impacts that make. The initial undertaking in terms of small scale mining should be to understand their impact. During our interviews, the Mines and Geoscience bureau spoke of performing a census of sorts on small scale mines. This data will be essential in creating educated viewpoints and strategies around small scale mining. CRS should seek to assist in determining what data should be collected or the collection of data itself.

Small-scale mining presents a very different set of challenges than large-scale mining does. Many of these challenges parallel those faced by the agricultural industry. Three major types of challenges presented by small-scale mining are its potential to create conflict, its impact on the environment, and the lack of substantial economies of scale.

Conflicts may arise between small-scale miners due to disputes over who had rights to the land. These disputes may take on an added level of complexity since an individual may have mineral rights, but not surface rights, or vice versa. Land issues are further complicated by complex and poorly managed

regulatory environment, which may result in multiple individuals or groups being granted surface and/or mineral rights to the same piece of land.

In addition to its potential to create conflict, small scale mining can also have a disproportionately large impact on the environment, relative to large-scale mining. In part, this is a result of the difficulty of monitoring small-scale mining operations. Small scale miners also use dangerous chemicals such as mercury and cyanide that can easily contaminate local water supplies if not properly handled and disposed of. This may have negative impacts on human health, as well as on the local agriculture.

Finally, an individual small-scale mine does not produce enough minerals to process and sell gold in the same markets that are available to medium- and large-scale mines. It can also be impractical for small-scale miners to obtain outside financing for their operations since traditional credit sources are not equipped to deal in such small amounts of capital.

A major benefit of small scale mining is that it is generally more likely to provide livelihoods for local community members than large scale mining. The process of small scale mining is much labor-intensive than the more mechanized, capital-intensive operations associated with large-scale mining operations. Furthermore, the labor that is required for large scale mining is often brought in from outside the community, while small-scale mines are more likely to draw labor from within the community.

Through its agricultural programs, CRS has addressed problems of small agricultural activities through the formation of co-ops and micro-credit organizations. Some of the methods and systems that have been successful in CRS's agricultural programs might be applicable to small scale mining operations in some communities under certain conditions. The formation of mining co-ops could also provide a mechanism whereby small-scale miners within a community can peacefully settle disputes over land and mineral rights.

The reasons for self-regulation and co-op formation are quite complicated. In an ideal world, there would be government systems in place to regulate environmental impacts. However in Mindanao, Manila is quite distant and often the local governments are corrupt or have self interest in the mining operations. Individuals can easily fall prey to the pressure of mines to make profits. Using CRS's abilities to build co-ops can fill the gap created by these weak government systems. Although it is more inefficient to force self-regulation, this seems to be the better alternative in this context.

Alternatives to Mining

In those communities which do not wish to either allow mining companies to come in from the outside or to engage in mining activities as a community, CRS and its partners could offer support in pursuing economic activities that could offer a feasible alternative to mining.

Comparative wages of mining

When examining alternatives to mining, it is important to understand the wages a miner would receive in comparison to the wages from other industries. Table 15 lists the wages of miners and workers in other industries.⁴⁷

Table 15: Wages of Workers in Mining and Other Industries

Occupation	Wages per Day
Managing Proprietors and Supervisors	790
Professionals	700
Technicians and Associate Professionals	480
Clerks	420
Service Workers and Shop and Market Sales Workers	270
Farmers, Forestry Workers and Fishermen	190
Trades and Related Workers	290
Plant and Machine Operators and Assemblers	320
Laborers and Unskilled Workers	180
Artisanal Mining Labor	1,400
Artisanal Mining Processing	770

Agriculture

Many communities in mineral-rich areas of mining have traditionally relied on subsistence farming and agricultural activities. In order for agriculture to compete with mining as a source of economic growth, these communities must find ways to farm more profitably. In this case, CRS's agricultural programs could make an important contribution to assist farmers in Mindanao to increase profitability through either improved farming practices or improved business practices.

In some communities, farmers may be able to increase their yields through more efficient use of irrigation, fertilizer, and other agricultural practices. The resulting increase in yields would lead to higher profits for farmers.

Farmers may also be able to engage in business practices that would increase the amount of profit available from a given level of yield. This could be done through better information on current commodity prices that could direct farmers to plant the most profitable types of crops, or organizing into co-ops that would allow farmers to utilize greater economies of scale.

Eco-tourism

Some mineral rich areas in Mindanao are suitable for agricultures because of the quality of the soil, the steep terrain, or other factors. These rocky, mountainous areas may have opportunities for ecotourism. Further research is required to determine which area of Mindanao might have potential for development as ecotourism destinations. The ongoing conflict in Mindanao presents a significant challenge to attracting domestic or international tourists to the area.

⁴⁷ Philippine Department of Labor and Employment; Contact Center Association of the Philippines; Interviews; Philippines Census Bureau

8. Conclusion

The challenges associated with the mining industry in the Philippines are complex, pervasive, and ever-changing. However, as CRS continues its peace-building efforts in the Mindanaoan communities that are affected by the mining industry, CRS must be mindful not only of the threats that mining may represent, but also of the opportunities that it may bring.

The team from Notre Dame would like to graciously thank the CRS staff for their support throughout the project. We always felt that we were in good hands and truly enjoyed their company. The experience that we had in working with Catholic Relief Services taught us each so much about the Philippines, business, law and peace. It is the hope of this year's Business on the Frontlines class that Catholic Relief Services will find the information and analysis in this report useful as they continue to plan for the future.

Sincerely,

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Appendix A: List of Mineral Production Sharing Agreements

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LIST OF MINERAL PRODUCTION SHARING AGREEMENTS (MPSA)

List of APPROVED & REGISTERED **51** Approved App'n **68,683.72** has **Total Area Approved: 129,369.49**

TENEMENT ID	TENEMENTS HOLDER	DATE APPROVED	EXPIRY DATE	Municipal Location	Provincial Location	AREA (has.)	COMMODITY	OPERATOR / PREVIOUS HOLDER	REMARKS
1 034-95-X	Deotrepis M. Bautista	01-Feb-1996	31-Jan-2021	Alegria	Surigao del Norte	405.00	Gold, etc.	Deotrepis M. Bautista	Agreement w/ SMMCI - No Exp'n activity
2 033-95-X	Estrella F. Bautista	01-Feb-1996	31-Jan-2021	Mallmono & Mainit	Surigao del Norte	488.00	Gold, etc.	Estrella F. Bautista	Agreement w/ MRL Gold - No Exp'n Activity
3 072-97-X (SMR)	Pacific Nickel Phils. Inc.	07-Aug-1997	6-Aug-2022	Nonoc, Awasan & Hanigan, Surigao City & Cagdlanao	Surigao del Norte & Dinagat Province	25,000.00	Nickel, etc.	Pacific Nickel Phils. Inc.	Operating
4 078-97-XIII (SMR)	East Coast Mineral Res. Co., Inc.	19-Nov-1997	18-Nov-2022	Valencia, Cagdlanao	Dinagat	697.048	Nickel, etc.	Cagdlanao Mining Corporation	Operating
5 084-97-XIII	Pacific Cement Philippines, Incorporated	20-Nov-1997	19-Nov-2022	Quezon, Mapawa, Surigao City	Surigao del Norte	645.2000	Limestone	Jose L. Cortes, Jr. Inocencio R. Cortes	Operating
6 103-98-XIII (SMR)	Claver Mineral Development Corp.	23-Feb-1998	22-Feb-2023	Cagdlanao, Claver	Surigao del Norte	433.98	Nickel, etc.	Shenzhou Mining Corp.	Operating under its SSMP
7 109-98-XIII	Consolidated Ores Philippines, Inc.	07-May-1998	6-May-2023	Manhulayan, San Miguel	Surigao del Sur	1,953.00	Gold, etc.	Consolidated Ores Philippines, Inc.	Temporary Stoppage of Exploration Activities
8 134-99-XIII	Minimax Mineral Exploration Corp.	25-May-1999	25-May-2024	Tubay & Santiago	Agusan del Norte	4,995.00	Nickel, etc.	MRL Gold Philippines, Inc.	Exploration
9 148-99-XIII	Philex Gold Philippines, Inc.	29-Dec-1999	28-Dec-2024	Tagana-an, Sison, Placer	Surigao del Norte	2,308.00	Gold, etc.	Silangan Mindanao Mining Co., Inc. (previously APSA no. 67-XIII)	No Exploration Activity
10 149-99-XIII	Philex Gold Philippines, Inc.	29-Dec-1999	28-Dec-2024	Sison, Tubod, Mainit, Placer	Surigao del Norte	2,879.70	Gold, etc.	Silangan Mindanao Mining Co., Inc. (previously APSA no. 40-XIII)	Exploration
11 158-00-XIII (SMR)	CTP Construction and Mining Corp.	02-May-2000	1-May-2025	Carrascal	Surigao del Sur	321.40	Nickel, etc.	CTP Construction and Mining Corp.	Operating
12 178-2002-XIII	Concordia R. Liave	21-Nov-2002	20-Nov-2025	Jabonga	Agusan del Norte	253.14	Gold, etc.	Concordia R. Liave	No Exploration Activity
13 184-2002-XIII	Greenstone Resources Corporation	11-Dec-2002	10-Dec-2025	Alegria, Mainit, Tubod, Bacuag	Surigao del Norte	3,288.77	Gold, etc.	JCG Resources Corp. (previously APSA No. 32-XIII)	Ongoing development activity for future mining operation.
14 190-2004-XIII	Philgold Metallic Ore, Inc.	06-Feb-2004	5-Feb-2029	Barobo	Surigao del Sur	449.49	Gold, etc.	Heirs of Emeterio L. Collado	Exploration
15 003-90-X (SMR)	Comet Mining Corporation	14-Nov-1991	13-Nov-2016	Esperanza, Loreto	Dinagat	1,298.00	Chromite, etc.	Vulcan Mining Corp.	Exploration
16 004-91-X (SMR)	San Manuel Mining Corporation	02-Apr-1991	1-Apr-2016	Masaplid Is., Placer	Surigao del Norte	1,490.00	Gold, etc.	Templar Resource Phils., Inc.	No Exploration Activity
17 007-92-X (SMR)	Surigao Resources Integrated Corp.	14-Feb-1992	14-Feb-2017	Cagdlanao, Claver	Surigao del Norte	4,378.00	Nickel, etc.	Case Construction Dev't. Corp.	Operating
18 008-92-X (SMR)	NARIDECO, Incorporated	15-May-1992	14-May-2017	Esperanza, Loreto	Dinagat	1,134.00	Chromite, etc.	NARIDECO, Incorporated	No Exploration Activity

19	010-92-X (SMR)	Century Peak Mining Corp.	07-May-1992	6-May-2017	Panamaon, Loreto	Dinagat	1,198.00	Chromite, etc	Casiguran Mining Corp.	Exploration
20	011-92-X (SMR)	Minahang Bayan ng Dinagat, Coop., Inc.	14-May-1992	13-May-2017	Panamaon, Loreto	Dinagat	648.00	Chromite, etc	Oriental Synergy Mining Corp.	Exploration
21	015-93-X (SMR)	Carao-an Development Corporation	19-Jun-1992	18-Jun-2017	Carrascal & Cantilan	Surigao del Sur	4,860.00	Nickel, etc.	Carao-an Development Corporation	Exploration
22	016-93-X (SMR)	Marc Ventures Mining & Dev't. Corp.	19-Jun-1992	18-Jun-2017	Carrascal & Cantilan & Madrid	Surigao del Sur	4,799.00	Gold, etc.	Ventura Timber Corporation	Operating
23	018-93-X (SMR)	CTP Construction & Mng. Corp.	11-Jan-1993	10-Jan-2018	Carrascal	Surigao del Sur	3,564.00	Gold, etc.	Operated by CNC	Operating
24	022-94-X (SMR)	E.L. Enterprises, Incorporated	11-May-1994	10-May-2019	Llamera, Albor	Dinagat	729.00	Chromite, etc	E.L. Enterprises, Incorporated	Under appeal at the Office of the Sec.
25	025-94-X (SMR)	Min. Bayan ng San Jose Multi-Purpose Coop.	11-Oct-1994	13-Oct-2019	Loreto & San Jose	Dinagat	486.00	Chromite, etc	Oriental Synergy Mining Corp.	Temporary Shutdown/Slowdown
26	028-94-X (SMR)	Minahang Bayan ng Albor, Coop., Inc.	17-Aug-1993	16-Aug-2018	Aguinaldo, Albor	Dinagat	570.00	Chromite, etc	Zhongli Mining Corp.	Exploration
27	002-90-X (SMR)	HY Chromite Mining & Dev't. Corp.	15-May-1990	14-May-2015	Loreto	Dinagat	972.00	Chromite, etc	Operator: Wellex	No Exploration Activity
28	031-94-X (SMR)	Vista Buena Mining Corp.	19-Jun-1992	18-Jun-2017	Tubajon & Loreto	Dinagat	3,696.00	Nickel, etc.	North Dinagat	Exploration
29	232-2007-XIII (SMR)	East Coast Mineral Resources Corp.	06-Jun-2007	7-Jun-2032	Loreto	Dinagat	249.00	Nickel, etc.	Previously East Coast Mineral Resources Corp. (APSA no. 71-XIII)	Exploration
30	233-2007-XIII (SMR)	East Coast Mineral Resources Corp.	06-Jun-2007	7-Jun-2032	Osmena, Plandil, Albor	Dinagat	4,226.27	Nickel, etc.	Philrock Alchemy Res. Corp.	Exploration
31	243-2007-XIII (SMR)	CTP Construction & Mng. Corp.	17-Jul-2007	16-Jul-2032	Carrascal	Surigao del Sur	4,547.76	Nickel, etc.	CTP Construction & Mng. Corp.	Operating
32	246-2007-XIII (SMR)	Hinatuan Mining Corp.	25-Jul-2007	24-Jul-2032	Taganaan Claver	Surigao del Norte	773.77	Nickel, etc.	Hinatuan Mining Corp.	Operating
33	247-2007-XIII (SMR)	Ludgoron Mining Corp.	27-Jul-2007	26-Jul-2032	Carrascal	Surigao del Norte & Surigao del Sur	3,248.06	Nickel, etc.	Itawes Mining Corp.	Approved
34	253-2007-XIII	Manila Mining Corp.	28-Jul-2007	27-Jul-2032	Placer	Surigao del Norte	211.50	Gold, etc.	Manila Mining Corp.	Temporary Shutdown/Slowdown
35	259-2007-XIII	Oriental Synergy Mining Corp.	12-Jul-2007	11-Jul-2032	Claver	Surigao del Norte	1,012.02	Nickel, etc.	Kalamazoo Mining Corp.	Temporary Shutdown/Slowdown
36	240-2007-XIII (SMR)	Nonweah Metals & Min. Corp., Inc.	12-Jul-2007	11-Jul-2032	Loreto	Dinagat	1,225.19	Nickel, etc.	-	Approved
37	241-2007-XIII (SMR)	Nonweah Metals & Min. Corp., Inc.	12-Jul-2007	11-Jul-2032	Cagdianao	Dinagat	226.02	Nickel, etc.	-	Exploration
38	242-2007-XIII (SMR)	Nonweah Metals & Min. Corp., Inc.	12-Jul-2007	11-Jul-2032	Tubajon & Libjo & Cagdianao	Dinagat	2,314.20	Nickel, etc.	-	Exploration. MOA bet. Oriental Vision and Declaration of Mining Project FS was forwarded to MGB CO on 07-20-10
39	261-2008-XIII	SR Metals Inc.	10-Mar-2008	9-Mar-2033	Tubay	Agusan del Norte	572.64	Nickel, etc.	-	Operating
40	262-2008-XIII	Philisaga Mining Corp.	11-Mar-2008	10-Mar-2033	Bunawan & Rosario	Agusan del Sur	2,623.41	Gold, etc.	-	Operating
41	266-2008-XIII	Taganito Mining Corp.	18-Jun-2009	17-Jun-2034	Taganito & Claver	Surigao del Norte	4,862.71	Nickel, etc.	-	Operating
42	280-2009-XIII	Merrill Crowe Corp.	21-Apr-2009	20-Apr-2034	Surigao City & Sison & Taganaan	Surigao del Norte	1,481.66	Gold, etc.	Previously Ever Mining Corp. APSA No. 30-XIII	Approved
43	283-2009-XIII (SMR)	Century Peak Corp.	19-Jun-2009	18-Jun-2034	Libjo & Loreto	Dinagat	3,188.26	Chromite, Nickel, etc.		Temporary Shutdown/Slowdown
44	284-2009-XIII	Ilepha Mining Exploration Company	19-Jun-2009	18-Jun-2034	Claver	Surigao del Norte	6,880.75	Nickel, etc.	-	Approved
45	291-2009-XIII (SMR)	Krominco, Inc.	28-Sep-2009	27-Sep-2034	Loreto	Dinagat	757.12	Nickel, etc.	-	Operating

46	299-2009-XIII	Philisaga Mining Corp.	24-Nov-2009	24-Nov-2034	Bunawan & Rosario	Agusan del Sur	2,200.36	Gold, etc.		Exploration
47	328-2010-XIII(SMR)	AAM-Phil Natural Resources Exploration and Development Corpo.	9-Mar-2010	8-Mar-2035	Basilisa & San Jose	Dinagat	1,680.81	Nickel, Cr, etc		Approved
48	322-2010-XIII(SMR)	North Dinagat Mineral Resources Corp.	11-Feb-2010	10-Feb-2035	Claver & Carrascal	Surigao del Norte & Surigao del Sur	2,320.09	Chromite, etc.		Approved
49	343-2010-XIII	Dias-agan Mining Corp.	9-Jun-2010	8-Jun-2035	Lingig & Barobo	Surigao del Sur	3,809.54	Gold, etc.		Approved
50	344-2010-XIII	Philex Gold Philippines, Inc.	9-Jun-2010	8-Jun-2035	Llana & Barobo & Sur, San Francisco	Surigao del Sur & Agusan de Sur	6,207.62	Gold, etc.	Philex Gold Philippines, Inc.	Approved
51	305-2009-XIII	SR Metals, Inc.	23-Dec-2009	22-Dec-1934	Tubay	Agusan del Norte	729.00	Gold, etc.	Rosalinda T. Deloso/ Complex Res. Inc.	Exploration