THE SAN MARTIN MINE AT VALLE DE SIRIA

Exploration, Exploitation and Closure: Impacts and Consequences EXECUTIVE REPORT





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- ... and the company takes what the company wants; nothing's as precious as a hole in the ground
- ... y la compañía se lleva lo que la compañía desea; nada es más valioso que un hoyo en la tierra.

Song: Blue Sky Mine, Midnight Oil. Australian rock band, 1990

The "oils", as the band is known by its followers, produce progressive rock with social critique. The song is a rallying cry against open-pit mining. Vocalist Peter Garret went on to be the Minister of the Environment in Australia, where he promoted important changes in the field of mining exploitation.





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1. Introduction



Honduras has been linked to mining since its beginnings. In addition to religion and a desire to expand the Spanish Kingdom, the conquistadors brought with them ambitions for gold and silver.

Honduras has been an area subject to mineral exploitation since colonial times under the Spanish Crown, and this extractive industry has guided much of its legislation, government leadership, and structure of state apparatus. As one particular extreme, in fact, mining interests decided where the capital city of the republic should be located.

After the peak and fall of colonial rule, and the liberal reforms at the end of the 19th century, mining lost its face-off with enclave economy of banana production and export. The fall of mining was so precipitous that from 1974 to 1984 the mining GDP is reported in negative numbers (-1.45)¹.

The close of the 20th century brought a new opportunity and momentum for mining exploitation projects. Nonetheless, mining is far from transcendental in terms of well-being: it does not generate substantive impacts for employment, does not distribute money or wealth, does not make important contributions to the treasury through taxes or municipal payments, all while it does leave behind a controversial wake of effects on human health, communities, and the environment.

Mining's economic contributions to the country are equal to less than 1.5% of the Gross Domestic Product, or GDP. According to official data from the Central Bank of Honduras, community, social,

TABLE 1 Behavior of mining activity with respect to gross domestic product.Honduras: 2000-2010 (in millions of lempiras)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Mining and quarries	489	684	717	900	1,099	1,184	2,396	2,770	2,036	1978	2,132
GDP by market prices	106,654	118,416	129,167	142,818	161,507	183,749	206,288	233,567	262,417	267,851	290,991
% of GDP	0,5	0,6	0,6	0,6	0,7	0,6	1,2	1,2	0,8	0,7	0,7
% of GDP of community, social, and personal services	8,0	8,9	9,5	2,5	2,5	2,5	2,5	2,5	2,6	3,0	2,9

Source: Internal design based on Honduras by the Numbers, Central Bank of Honduras.

^{1 &}quot;Extractive Industries: Mining is bad business for Honduras." Claudia Cárcamo. OXFAM INTERNATIONAL - ASO-NOG - CHRISTIAN AID. Honduras 2005.

and personal services contribute more to GDP than metallic and nonmetals extractive industries.

Another expression of the scant contributions that mining has made to the wealth of the country and the communities can be seen in the contrast between the total money paid in taxes to the Municipality of San Ignacio, and the cost of just one instance of damages caused by mining operations:

ENTRE MARES Minerals reports having extracted 500,000 troy ounces through the year 2007 (San Martín Closure Plan, 2007). Calculating this weight based on the average perounce price for gold from the years 2000 - 2008 (intervals each October) of \$514.15, the 500,000 troy ounces extracted represent a total value of \$257,075,000.00 (USD).

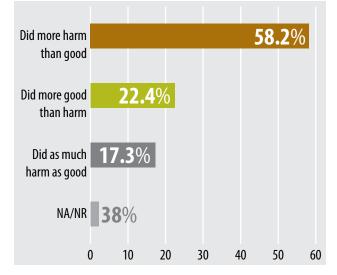
Given these numbers, the 1% mining tax that the Municipality of San Ignacio should have received over the exploitation period is \$2,570,750.00 (USD), or 47,558,875 lempiras.

Damages caused by the mining operation to the forest alone, without considering additional damages, have been calculated at an approximate 39,000,000 lempiras, that is, 82% of the entire value of the 1% municipal mining tax paid to San Ignacio.

The San Martín mine is the first open-pit mineral extraction project in the country that has completed the cycle of exploration, exploitation, and closure. This study thus seeks to explore the results of this operation as objectively as possible, from a standpoint of costs/benefits for affected communities and future generations, taking into account social, economic, and environmental impacts as well as the health of the democracies of the state and the municipalities of Valle de Siria.

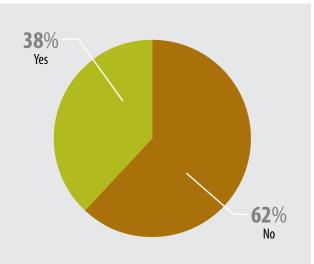
The informational summary presented below includes the outcomes of the study undertaken by the Honduran Environmental Law Institute, IDAMHO, and explores the impacts of the San Martín project in terms of its contributions to community development through social, human, economic, and environmental assessments.

The issues contained in the executive report are covered in greater detail in the full study. Over the course of the research process, a perceptions survey on mining operations was performed; the study revealed some interesting results (some of which are detailed in this executive in this report) regarding the thoughts and perspectives of the communities surrounding and immersed in daily mining operations at the San Martín open-pit project. These results are expressed in the following graphs: **GRAPH 1** | Which of the following statements best describes your feelings? The mine...



Source: Perception survey on social, economic, and environmental impacts of the operations and closure of the San Martín Mine in the villages of San Miguel de Barrosa, Municipality of San Ignacio, and El Pedernal, Municipality of El Porvenir, in the Department of Francisco Morazán. Honduras, C. A., September, 2012.

GRAPH 2 Are you in favor of the mining operations in this community?



Source: Perception survey on social, economic, and environmental impacts of the operations and closure of the San Martín Mine in the villages of San Miguel de Barrosa, Municipality of San Ignacio, and El Pedernal, Municipality of El Porvenir, in the Department of Francisco Morazán. Honduras, C. A., September, 2012.

GENERAL INFORMATION

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Research Scenario

The mining exploration process in Valle de Siria began in the early 1980s when the Fisher Watt Gold Company began to perform explorations in the area.

From 1995 to 1996, Mar West (Entre Mares Minerals) took control of the area and identified three possible exploitation zones: one which it called the Sinter Zone, and two deposits named Rosa and Palo Alto.

In January, 2000, Entre Mares Minerals of Honduras received a permit for mining exploitation as part of the controversial General Mining Law passed in 1998. The granting of these exploration and exploitation permits occurred in a context of grave gaps in the state structure that granted privileges to foreign and national capital at the cost of the country's social and human interests. This context was driven by neoliberal doctrines implanted in the country since the 1990s, and which continue to be promoted and implemented in the country today as national and community goods and resources are transferred into the hands of private foreign investors.

The San Martín mining project was undertaken in a country context with the following characteristics:

a) PYRAMID SOCIETY STRUCTURE: Honduran society is structured unequally. The quintile of the population with the greatest privileges consumes or controls 58% of the annual national production; the most excluded and marginalized quintile of the population receives only 2.3% of the benefits of the annual wealth produced.

Some 61.9% of the population of the country lives below the poverty line (http://datos. bancomun-dial.org/pais/honduras).

There is also widespread deficiency in access to water (95% of the rural population and 4.7% of the urban population do not have access to public running water). There is exclusion for youth and children: 53.8% of school-aged young people do not have access to preschool education; 10.85% do not have access to primary education; 38.9% for secondary education, and; up to 71.9% of youth do not have access to diversified secondary education (high school or specialties such as teaching, secretarial skills, or commerce). Up to 24.4% of youth do not have access to education or employment (Source: INE-EPHPM 2010 and 2011).

Development policy tends to privilege urban sectors and marginalize the rural areas, keeping them submerged in poverty. Exclusion of women, indigenous people, blacks, sexual diversity, and the urban and rural poor is strong and suffocating. Older adults and people with disabilities are permanently hidden and overlooked.

b) LACK OF LEGITIMACY AMONG POWERFUL **GROUPS AND POLITICAL ELITES:** Frustration and discontent with expectations for social democracy, economic performance, and judicial and political systems can clearly be seen in a protracted drop in citizen participation in political and electoral processes. Over 29 years, from 1980 to 2009, voter abstention in elections grew from 18% to 50.3%². This absenteeism in democratic elections has a double effect, moving the country toward the danger of being termed as a failed-state given the political vacuum and lack of solid opposition, and opening the door to theft and plunder of public goods and resources without strong social oversight.

And it is in the midst of this context that is so vulnerable to a discourse of employment and prosperity (discourse of wealth) that the San Martín mining project is established.

From the years 2000 to 2008, mining exploitation activities were performed in the Tajo Rosa and Tajo Palo Alto mineral deposits, respectively. The closure and post-closure stages for the San Martín Mine began in the year 2008. In its wake, the mine closure leaves the unease of the affected population and uncertainty regarding lasting contamination, environmental damages, and impacts on human health, local economies, and the social structure of the communities.

This study thus investigates, reflects upon, and reconstructs the mining process (exploration, exploitation, and closure), and draws forwardlooking conclusions for current future mining enterprises in Honduras.

Methodology and Objectives

The study was conducted over the course of four synergistic stages:

- 1. Research planning.
- 2. Document research and consulting with secondary sources.
- 3. Research with direct and primary sources.
- 4. Analysis, conclusions, and writing.

The objective of the research is to provide a retrospective evaluation of the open-pit mining operations at the "San Martín Mine" site located in Valle de Siria, with special attention paid to the closure process and post-closure stage from a cost/benefit standpoint for the country and communities, as well as to the social, economic, and environmental impacts of the mining project.

Over the course of the process, researchers interviewed main stakeholders and conducted group sessions with ex-employees at the mine to reconstruct the information and experiences. Researchers reviewed and analyzed the official do-

^{.....}

² Based on data from the Supreme Electoral Tribunal of Honduras and Manuel Alcántara Sáenz & Flavia Freidenberg)

cumentation to which they were granted access for the study, along with various independently produced documents; over 150 informational worksheets were completed to extract and collate this information. To contrast the document review stage and gain another perspective from primary sources, a perception survey was also administered in the communities near the mining exploitation zones³.

Processing, discussion, and analysis of the information was undertaken by a research team that worked on the pre-analyzed and organized materials provided by the project coordination group. The inputs generated were presented as advance findings to a National Committee of Experts who volunteered their time and recognized experience to provide feedback to the research process. Individuals in international organizations working in the field of extractive industries also reviewed and provided feedback on the research materials and findings.

Obstacles and Contributions

The main obstacle to the research process was the lack of transparency among public officials

3 The survey was conducted in the villages of San Miguel de Barrosa in the Municipality of San Ignacio (including the communities of San Miguel de Barrosa Pueblo, Nueva San José de Palo Ralo, and La Chorrera), and the village of El Pedernal, in the Municipality of El Porvenir. All of these areas bordered the extractive operation zone of the San Martín Mine. A total of 488 people were surveyed.

in managing information on the mining projects. The research coordinators requested information, meetings, and interviews from diverse government offices (the Secretary of Natural Resources and the Environment, Executive Director of the Department for Mining Promotion (DEFOMIN, by its Spanish acronym), the public prosecution department (Special Attorney for Human Rights), and the Mining Commission at the National Congress.) No responses were received for these requests.

Access gained to official information has been thanks to the proactive work of environmental activists and defenders that have patiently and scrupulously collected and archived all of the official information that they were able to obtain.

Several of the pro-mining organizations of the country (National Association for Metals Mining in Honduras - ANAMIMH, and Entre Mares Minerals itself) also declined to respond to requests for information and interviews.

Nonetheless, it is important to note that community members and ex-employees who continue to hold favorable views of mining interests did respond to requests for information and provide interviews for the research team; these interviews and data have been key elements to understanding their points of view and reflecting them in the study. It is also important to recognize the valuable contributions made by the members of the Valle de Siria Environmental Committee (CAVS by its Spanish acronym), the group of exemployees of the mine, the Municipality of San Ignacio, and Julio Rolando Escobar, Mayor of San Ignacio during the exploitation of the San Martín Mine.

FINDINGS AND IMPACTS

Findings

• Women and Mining

Operations at the San Martín Mine have been particularly harmful for the women of Valle de Siria. The exploration, exploitation, closure, and post-closure processes for the mining operations have all excluded women from any benefits. The practice of mineral extraction has been seen as "a man thing", while the effects and impacts of extraction have direct consequences in the lives of women.

Mining is strictly androcentric; that is, it marginalizes and overlooks women. Mining does not contribute to gender equity or equality; in fact, it reproduces and reinforces traditional roles in machista social structures. At the mine, men have been assigned tasks based on their physical strength and rule over decision-making: operating machinery and vehicles, security, ADR (absorption, desorption, and recovery), blasting, industrial safety, etc.

Management and leadership roles have been mostly assigned to male foreigners, and in the case of nationals named for leadership or management, these nominations have mainly been for men as well.

The few women that have gained employment in mines have generally been hired as kitchen or cleaning staff. Women have been so overlooked in the logic of the San Martín mining project, that the mining personnel reports never mention any gender distinctions whatsoever. Gender-based exclusion is not only expressed internally in the mining operation; the negative impacts and harmful effects of the project also directly affect women's overall and reproductive health as a result of unequal gender relations.

The documentation, testimonies, and narratives reviewed, along with the results of the perception survey, all reveal that the characteristics of mining work (long work days that prohibit participation in other spheres such as family, household, and social areas), and the higher salaries around the mine, often replicate situations and actions that keep women under submission, excluded, and vulnerable.

The state and municipal governments have been unable to identify and plan around this situation, or include mitigation measures with an understanding that higher salaries and long hours must be accompanied by efforts to raise awareness around gender issues and build new models of masculinity that avoid the replication of patterns of domination and machismo.

The negative effects of mining on the environment and human health have a direct impact on women. Water contamination also contaminates women. Due to the androcentric model in which mothers and daughters are given all of the family responsibilities (cooking, raising and educating children, hygiene, administration of water and food, washing clothes, etc.), this contamination then spreads. Mining contamination affects women through at least **two direct channels**:

- Health effects damage women's wellbeing and self-esteem: damage to the digestive system (including vomiting, nausea, kidney problems, gastrointestinal distress, etc.), loss of hair and fingernails, dermatitis, miscarriages, etc.
- 2. Impacts in the health of partner relationships and children. Even if women are sick themselves, it is often the case in restricted household economies caused by the loss of income due to illness, that they are also called upon to care for others as they suffer impacts and illnesses. Stress from household economic restrictions is transferred directly to mothers.

An additional example of how women are overlooked and excluded in mining promotion and operations could be seen when the mining project was established for the community of Palo Ralo: mining promoters conducted a community consult on the project and heard opinions only from "male heads of households". This attitude was repeated when the mine failed to comply with its obligations under the Equal Opportunities for Women Act (on the books since the year 2000) on employment, access to assets⁴, health, and social participation.

4 There are no indications that the state or municipal governments, or the mining company have considered their obligations stipulated in the existing positive international legal framework (international conventions and agreements) or the Equal Opportunities for Women Act. These obligations with respect to women's access

In conclusion, while the mine does not directly provoke exclusion and isolation of women, the unmitigated effects of mining actions reinforce, enhance, and promote conducts that lead to exclusion and discrimination against women.

High salaries, for example, according to the participants in community perception surveys, led to an increase in the authoritarian conduct of men against their partners, mothers, sisters, or female friends. Large-scale projects also bring greater local sexual activity (prostitution and infidelity, for example).

In addition to exacerbating the environment of machismo expressed against women, this increased activity enhances the possibilities for the spread of Sexually Transmitted Diseases (STDs) such as Human Papillomavirus, vaginal infections, HIV, and others.

Long workdays and the side effects of expendable salaries tend to reduce the likelihood of men participating in household work and chores, which accentuates the traditional domestic roles and the burden upon women, preventing more egalitarian participation in society.

to assets seem to have gotten lost in the shuffle of property movements caused by mining activity.

• Violation and non-compliance with national and international legislation

During its operations, the San Martín mining project violated or failed to comply with at least the following national laws and international agreements:

 INTERNATIONAL COVENANT ON ECONOMIC, SOCIAL, AND POLITICAL RIGHTS (IC-ESCR), AR-TICLE 2: Communities were not consulted for their opinions on the implementation of a metals mining extraction project that would affect their resources and other sources of income⁵.

The population consulted in the opinion survey reported that the San Martín Mine affected their traditional and most important means of subsistence. 2. ILO CONVENTION 29 ON FORCED LABOR, AR-TICLES 5 AND 42 ON PROFESSIONAL ILLNES-SES, ARTICLE 2. The majority of ex-employees revealed in their testimonies that a number of abuses were committed in violation of Honduran labor law and ILO international agreements, particularly Article 5 of Convention 29 of the ILO, which clearly prohibits employers from demanding forced labor from their workers.

Most of the ex-employees from the mine report cervical, vertebral, and lumbar damage as a result of the physical work they performed, including lifting heavy pipes for the leaching sprayers, lime powder bales, fertilizers, rocks, etc.

TABLE 2 Perceptions on the effects of extractive operations at San Martin on livelihoods for the communities of Valle de Siria

p. 46 Of the following economic activities, choose if mining activity made an improve-	Percent				
ment, caused harm, or had no effect:	Improved	No effect	Damaged		
Agriculture	9,4	33,3	57,3		
Livestock-raising	6,5	31,8	61,7		
Poultry-raising	7,1	44,9	48,0		
Fishing	8,3	55,3	36,4		
Crafts	9,5	68,3	22,2		
Tourism	33,7	44,2	22,1		
Small-scale commerce	32,2	47,7	20,1		
Large-scale commerce	29,7	49,6	20,7		
Rental, loans, and others	34,9	44,6	20,5		

Source: Perception survey on social, economic, and environmental impacts of the operations and closure of the San Martín Mine in the villages of San Miguel de Barrosa, Municipality of San Ignacio, and El Pedernal, Municipality of El Porvenir, in the Department of Francisco Morazán. Honduras, C. A., September, 2012.

5 Article 2 of the ICESCR establishes the obligation to consult with the communities regarding their means of subsistence.

Over the course of the interviews and meetings with ex-employees from the mine, subjects reported having suffered humiliation and abuses in violation of Article 2 of the convention, which prohibits work under threat of dismissal, characterized for example by the phrase: "If you don't want to work, you know where the door is." Workers reported that their health and safety was in danger as well (washing containers and equipment that had chemical residues without any protective equipment and nearly in the nude ("just in our underwear"), or burning cyanide packaging without proper protection, etc.)

3. THE CONSTITUTION OF THE REPUBLIC: In the year 2006, a legal suit was filed arguing that the General Mining Law of 1998 was unconstitutional. The suit was successful, and that same year 13 articles of the law were repealed. Some of these articles were so egregious as to allow for the expropriation of land from any owner that did not settle with the mining company or refused mining operations.

The state has not assigned liability for those who passed and enacted these unconstitutional articles, nor have reparations been made for the eight years for which these provisions were on the books.

It should be mentioned that the spirit behind these unconstitutional articles was so extreme that some government officials and employees even left their legal posts to go to work for the mining company.

TEXT BOX 1 General Mining Law

Article 32.- Holders of mining rights, upon verifying the impossibility of using the benefits of the concession or obtaining a negotiated or court-mandated right-ofaccess from the owner of the surface land rights, many request forced expropriation of the land via eminent domain in the public interest. The corresponding authority will rule upon the request based on the terms and procedures outlined in this law.

TEXT BOX 2 | Mining Power

According to the representative of CODEHFOR (Santa Rosa de Copán, City Office): "The mining company may do whatever it deems appropriate with the forest resources within the mining concession; if there is a thousand year old tree on the land and the company has to cut it, they may do so."

Extractive industries: Mining is bad business for Honduras. Claudia Cárcamo. OXFAM INTERNA-TIONAL-ASONOG-CHRISTIAN AID. Honduras, 2005. Page 21.

Impacts

O Economic Impacts

Paul Krugman, Nobel Laureate in Economics in the year 2008, posits that a new industry should generate a "doubtless improvement in the lives of common people. This in part because a growing industry should offer its workers a higher salary than what they would receive in another company. In addition to this, growing production and employment that this production creates should have a multiplier effect throughout the economy". (Krugman, 2009). Nonetheless, the San Martín Mine operations fly in the face of these suggestions.

Some of the **contradictions** include:

A. DISTORTION FROM ECONOMIC BUBBLES IN FOOD SUPPLIES, RENTALS, AND CARGO TRANSPORTATION

During the initial period of mining extraction there is a spike in the demand for specific goods and services (food and home goods, and rentals) driven by the needs of the mining company. This demand causes an economic bubble which eventually bursts; rising demand drives up the prices of these goods and services, and then the demand suddenly disappears.

In the case of home goods and food, the bubble explodes when the mine establishes its own company store. At this point, in addition to dropping mine purchases from these providers off the map, local stores face the loss of mine employees as customers as well. In its attempt to make as much money as possible, even by leading its workers to pay back their salary to the company store, Entre Mares Minerals severely affected its previous providers.

A similar phenomenon happens in the case of the rental market. Demand for rental lodgings when mining operations came in drove traditional neighborhood relations (such as poor people giving each other free room and board) out of the picture in San Ignacio. The average price of rental lodgings in the municipality rose tenfold or more. There are cases of individuals who invested or went into debt to build rental spaces in the midst of the local rental boom, and who went bust as the rental bubble exploded when the mine built its own housing camp. With the mine's new construction, the company stopped renting housing locally, and concentrated all of its external personnel in the camp on the concession land, further drawing them away from the local rental real estate market.

A case of slower expansion and contraction can be found in transportation sub-contracting. Transporters were very active at the start of the project, and these contractual relations extended over the course of the eight years of mining exploitation. The relationship between the transportation providers and the mining company became so close that the drivers at one point even laid siege to the public high school in San Ignacio, with teachers and environmental activists inside. The transporters made threats to rape, injure, and kill the people in the school in an attempt to stop a meeting of the Valle de Siria Environmental Committee going on inside. **TEXT BOX 3** | Municipal taxes paid on transportation services: Entre Mares Minerals, San Martín Mine, San Ignacio, Valle de Siria.

Year	2005	2006	2007	2008	2009	2010	2011	2012
Lempiras	9,878.66	16,085.40	21,461.23	15,158.51	608,968.27	290,559.39	2,970.00	1,980.00

Source: Data provided by records from the Municipal Government of San Ignacio

During the bubble from 2000 - 2010, the water truck owners and drivers were awarded contracts to supply water to communities affected by the extreme water usage of the mine. In the year 2002, the San Martín Mine caused a water shortage for the population, and reached an agreement with the local inhabitants in which the mining company would supply an average of 14,000 gallons of water per day.

A look at the municipal taxes paid by transportation companies in San Ignacio, at least by the existing municipal records (files exist from the year 2005 to the present, but none predate that year), clearly shows the behavior of this bubble. Income from the years 2011-2012 give an idea of what business is like without the mine, while the income reported for the years 2005-2008 show the contracts awarded in the midst of mining exploitation. The income reported for 2009-2010 shows the dynamics around the mine closure (dismantling and transporting various loads).

As one can see, taxes paid in 2009 and 2010 grow nearly 28 times past the maximum level during the mining exploitation period (2005-2008), while the post-closure period sees income fall nearly five times less than the minimum reported during the exploitation period.

B. LOW EMPLOYMENT AND OCCUPATION

Considering the population:jobs ratio, the employment generated by Entre Mares Minerals for Valle de Siria is not significant locally or nationally: 330 jobs for a national population that fluctuated from 6 to 8 million for the operations period represents around 0.005%. Regionally, this ratio is not much better: 200 jobs for a population of 41,635 inhabitants represents 0.5%. On a municipal level, 170 jobs available for a population of 7,409 inhabitants (San Ignacio) means that the San Martín Mine employed 2.3% of the population.

Additionally, the jobs that were generated have not been permanent. Once the mine closed, there was not alternative occupation available for ex-employees of the mine; the local labor market had no use for their highly specialized training.

The industrialized work offered by the mine tended to atrophy or discontinue the previous skills and livelihoods of the now ex-employees of the mine (agriculture and livestock-raising).

Lastly, disabilities or reduced physical abilities as a result of the labor abuse received at the mine puts the ex-workers at a disadvantage for future gainful employment.

C. SCANT CONTRIBUTIONS TO THE NATIONAL OR MUNICIPAL TREASURY

From the year 2000 to 2010, the exploitation period for the San Martín Mine, all of the extractive activities of the mine (metals and non-metals mining) contributed an average of 0.7% annually to the GDP of the country. According to reports from the mine itself (San Martín Mine Closure Plan, 2007), a total of 500 thousand troy ounces were extracted through the year 2007, at an average ounce-price of 581.67 USD (calculated at yearly intervals each October from 2002-2007), for a total of 290,835,000.00 USD, or 5,380,447,500.00 lempiras. This amount is a similar total the foreign debt burden accumulated by Honduras from 1950-2004 (when nearly 40% of the debt total was forgiven). In other words, in seven years of operations the mining company saw money flow into its coffers equaling the total foreign debt acquired by Honduras over 54 years.

Given these data, the Municipality of San Ignacio should have received some 2,908,350.00 USD, or 53,804,475.00 empiras, over the course of the exploitation period as payment for the 1% Municipal Tax on Mining. This comes out to a little over seven million lempiras per year, which is a small sum for a municipality such as San Ignacio: less than 1,500 lempiras per person per year in the community, or less than 100 lempiras per person per month.

• Social and Human Impacts

In addition to economic impacts, mining activities have caused direct social, individual, and human impacts in the communities. The multiple social impacts include: effects on the cultural landscape, changing social patterns and conducts (growing authoritarianism and machismo, deepening inter-generational differences, and rising consumption of gateway and hard drugs such as tobacco, alcohol, marijuana, and cocaine). The human impacts include severe health problems and in some cases even death.

A. THE SAN MARTÍN MINE HAS DAMAGED SOCIAL FABRIC AND COMMUNITY LIFE

According to the perception study performed in October of last year as a part of the research to compile this report, mining operations led to greater authoritarian attitudes and actions by male heads of household, and led to consumption of alcohol, tobacco, and use of recreational drugs such as cocaine and marijuana.

There is clear damage to the physical landscape as well. The wound in the mountain where the mine was located is visible from a great distance all across the Valle de Siria area. Other more intimate changes to the local landscape are visible in the areas surrounding the epicenter of the exploitation area, and represent a great emotional impact on the population. The most severe damage to the landscape in terms of the emotional impact on the inhabitants has been the forced relocation of the community of Palo Ralo.

Nonetheless, the individuals interviewed and contacted through the perception survey also mention other damages to the cultural landscape as a result of the impacts on recreational areas in communities (hot springs and water sources), and the loss of contact with the local fauna that was a part of local life as well as an important element in the local traditional diet.

In terms of the landscape in general, interview and survey subjects lament the felling of trees that the community had planted and cared for over the course of more than a decade on both sides of the highway through Valle de Siria. The trees were brought down by mining company in a unilateral operation without consulting the communities, under the justification of improving access to the mine.

B. HARM TO HUMAN HEALTH

There is ample evidence of damage to human health as a result of mining operations. The effects on human health can be classified in two ways: damages as a consequence of workplace activities, and damages to inhabitants as a result of mining activities.

O HARM FROM MINING WORK:

Deaths: Ex-employees at the mine report different impacts on their health as a result of abuses by their employer (San Martín Mine). Those interviewed reported two cases of death:

One death occurred as a result as a workplace accident in sub-contracted labor. One subcontracted worker was sleeping under his truck and was run over by the vehicle once the machinery was turned on again. The other case, no less severe, involved the mine's security department:

One of the security guards hired by Entre Mares Minerals was an ex-member of the well-known "3-16 Batallion" that operated as a death squad during the application of the National Security Doctrine during the 1980s, committing kidnappings, torture, murder, and forced disappearances of many individuals considered to oppose the the regime at that time. This security guard is believed to be responsible for the torture and murder of *Rolando Gutiérrez*, who came to the mine looking for a job and disappeared that same night. Rolando Gutiérrez was the brother of a well known human rights activist.

Health impacts. One severe case of particular relevance is that of Mr. *Ángel Reyes*, an ex-employee from the Environmental Department at the San Martín Mine. Ángel was responsible for burning the cyanide packaging: the plastic wrappers, cardboard boxes, and wooden containers. This disposal was done under very poor security protocol (Mr. Reyes was simply given a hospital mask), and this task eventually affected his health. Mr. Reyes currently has leukemia, which he attributes to his work at the mine burning cyanide packaging. Ángel Reyes is alive thanks to expensive cancer medicine that he is given by a foundation for people living with cancer. Mr. Reyes' precarious situation is so extreme that at times he has trouble getting the medicines he needs due to lack of money for transportation. Reyes has received no indication that the mine has any interest in his case.

Another important case is that of *José Ernesto López*, who worked in blasting (the department responsible for the explosions using ANFO).

José Ernesto's workmates lost track of where he was in an explosion field, and he was left unprotected from an imminent ANFO detonation. Sensing he was in danger, and with the detonation time fast approaching (detonations were performed at 12:00 noon), José Ernesto moved as far away as he could. Even so, the shock wave threw him more than 10 meters through the air. López was admitted to a hospital and eventually released; the mine attempted to reinstate him in his job blasting for the mine. Given his fierce refusal to return to blasting under the same conditions as before his accident, José Ernesto was relocated in the Environmental Department where, despite his convalescence, he was made to carry heavy rocks.

José Ernesto was never treated for Post-Traumatic Stress Disorder, despite the fact that after a traumatic experience of such magnitude that he could have been killed he requires care, not just for his physical health, but also for his psychological and emotional status. As a consequence of the explosion, José Ernesto suffers hearing damage, headaches, and intense post-traumatic stress disorder. He also suffers vertebral and lumbar distress as a result of the physical labor to which he was subjected during convalescence, when he was forced to carry heavy bales of the materials to fashion the explosives for blasting. The mine has not taken responsibility for José Ernesto's medical expenses following his dismissal. Entre Mares Minerals has failed to comply with its obligations as an employer, as well as with the commitments it made to José Ernesto for his medical care following the accident.

José Ernesto had to spend the greater part of his worker's benefits on his own health expenses, and thus was not able to invest in improving his living conditions. In addition, José Ernesto is now unfit for further work.

In addition to these notable cases, other exemployees have also filed complaints. Most of the employees report cervical, vertical, and lumbar damage as a result of the physical work they performed, including lifting heavy pipes for leaching sprayers, lime powder bales, rocks, etc.

There are also reports of workplace accidents for which the workers did not receive care or the necessary accommodations for their convalescence. The medical files of ex-employees were never returned to the patients, and they have mysteriously disappeared. A claim for the medical records has been filed with the Special Prosecutor for Human Rights. The prosecutor's office declined to give any comments for this study.

It is not clear if, in addition to the recognized cases, there may be other cases of ex-employees with health damages due to contamination from chemical agents or heavy metals. Some ex-employees reported suffering nausea, vomiting, and loss of hair and fingernails, all of which are common symptoms of contamination.

ODAMAGES TO HEALTH, THE ENVIRONMENT, AND THE GENERAL POPULATION AS A RESULT OF MINING ACTIVITY

Reports confirmed the death of a young girl named Leslie Yanitza Pérez on September 25, 2010, from Werdnig-Hoffman Syndrome, also know as type 1 muscular atrophy.

A study in the year 2007 (Bianchini, 2007) reported that the "paternal and maternal family history of Leslie Yanitza did not include cases of the syndrome, which rules out hereditary transmission... medical tests revealed high levels of lead (173 ug/ dl) and arsenic (263 ug/ dl)... these metals are teratogenic and may cause genetic mutations". According to the WHO, acceptable lead and arsenic values in micrograms per deciliter (ug/dl) range from 10 to 30 ug/dl. The WHO draws a standard line at 100 ug/dl as a critical level for these metals in one's blood. These blood levels with heavy metals may be, not only in the case of Leslie Yanitza, a result of exposure of sulfide rocks in the earth's crust during blasting⁶.

The sulfides in the rocks under the earth's crust tend to degenerate into acid upon contact with oxygen and water; this reaction leads to heavy metals that are harmful to human health.

The Entre Mares Minerals closure plan presented in the year 2007 admits that a rock analysis of the Tajo Palo Alto site detected a significant number of rock samples that could generate acid and activate the presence of heavy metals such as arsenic and lead. The sample showed that 6 out of 25 rocks (24%) were found in these conditions. There is no indication that the state or mining company has performed an objective assessment to determine the impact of sulfurous rocks coming into contact with oxygen and water (sulfur catalyzers that activate heavy metals in the environment) as a result of blasting for minerals extraction.

One of the studies performed for this research (Flaviano Bianchini, July, 2006) shows that "the community of Nueva Palo Ralo presents an infant mortality rate 12 times higher than the national average). These values increase considerably for children of former mine workers. In the case of these children, the mortality rate reaches 833/100, or 33 times the national average."

6 The mine conducted detonations (blasting in the mine) with ANFO - (Ammonium Nitrate Fuel Oil), a powerful explosive used to move rocks and leaching material in search of gold. There are at least 62 cases reported of inhabitants in the mine's area of influence with heavy metals in their blood. This was also confirmed in a forensic medicine study conducted on August 16, 2007, though the results were only shared with the study subjects four years later (in 2011), after the mine had closed its operations and withdrawn from the area.

It should also be noted that arsenic was detected in a drinking well provided by the mine for the inhabitants of Nueva Palo Ralo, and the well was closed five years later, after the community members had made use of the water.

There are also reports of miscarriages with unusual frequency in communities surrounding the epicenter of the mine.

• Environmental Impacts

There is no sense in debating whether or not extractive industries generate a negative environmental impact. Gashing a deep wound in the earth implies removing the organic layer, destroying the habitat for flora and fauna in the extraction operation area, applying chemical agents such as cyanide, exposing water sources to contamination, and potentially contaminating the area with heavy metals by moving sulfide rocks with explosions. Simply put, the discussion should not be IF there is environmental damage, rather it should explore the magnitude of the harm done.

The findings of the report indicate the following damages:

A. TOTAL ANNIHILATION OF THE FLORA AND ANIMAL HABITAT AT THE EPICENTER OF MINING OPERATIONS, AND EXPANDING IMPACT INTO THE SURROUNDING AREA OF INFLUENCE.

The Environmental Impact Assessment and Closure Plan for the San Martín Mine indicate that, judging from the physical and biophysical resources and the climate records in the San Martín project area, the exploitation zone and its area of impact fall within the Dry Tropical to Subtropical Forest Region as per the Holdridge classification.

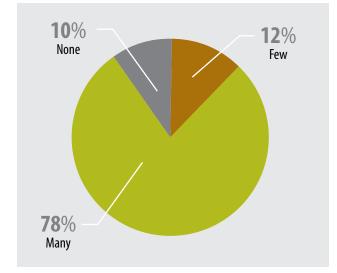
Both documents report 41 families from 76 species including arboreal, bush, herbaceous, epiphyte, and cactus groups; herbaceous plants represent 43% of the total, trees another 38%, and the remaining 19% is divided among bushes, epiphytes (specifically orchids), and cacti.

The documents identify 26 species of mammals divided among 15 families; researchers also found 49 species of birds belonging to 22 families. Another 18 species of amphibians and reptiles were identified, corresponding to 13 families. Only two naturally-found genus of fish were mentioned: Poecilia and Cichlid.

There are five orders of invertebrates reported in the documents: Odonata, Hemiptera, Diptera, Trichoptera, and Coleoptera. This species inventory coincides with the testimonial evidence shared by the interview subjects over the course of the research for this report. The local inhabitants report having seen: wildcats, deer, rabbits, tapirs, rats and mice, iguanas, snakes, toads, frogs, parrots, ibis, chachalacas, and roadrunners. In terms of vegetation, interview subjects mentioned cedars, pines, and oak.

The habitat for these species was entirely destroyed in the mining exploitation epicenter. No further evidence is needed to demonstrate that the animals had to relocate, or that the vegetation of the area was annihilated and the organic layer totally removed.

GRAPH 3 | Mining has no, few, or many effects on the following environmental problems: deforestation (forest destruction, loss of forest coverage)



Source: Perception survey on social, economic, and environmental impacts of the operations and closure of the San Martín Mine in the villages of San Miguel de Barrosa, Municipality of San Ignacio, and El Pedernal, Municipality of El Porvenir, in the Department of Francisco Morazán. Honduras, C. A., September, 2012.

B. WATER CONTAMINATION

Mining activity demands great quantities of water, ranging from 10,000 to 30,000 liters per day. Over the course of the San Martín project, Entre Mares Minerals provoked water shortages in the surrounding communities, and the company was forced to design water supply mechanisms for the communities after a prohibition was set by the Secretariat of Natural Resources and the Environment (SG 083 2002).

In the case of the San Martín Mine, there is sufficient evidence to demonstrate permanent contamination of the streams and other water sources; this contamination is an active and dangerous cycle for flora, fauna, persons, and livestock in Valle de Siria.

The inhabitants of San José de Palo Ralo all consumed water from a well contaminated with cyanide for five years.

In the year 2002, the National Autonomous Service of Aqueducts and Sewers (SANAA by its Spanish acronym) expressed the importance of prohibiting industrial use of the waters of the Siale, Malaque, and Playas rivers in the area of influence of the San Martín Mine.

Reports from DEFOMIN reveal peaks and valleys in measurements of cyanide, arsenic, and lead. For example, a monitoring report for December 13-16, 2005, shows a cyanide measurement of 3.71 ppm (parts per million) in the Guajiniquil stream, while the previous inspection at the same site showed 0.25 ppm. The same report notes that "sulfides found exposed in the access road to Tajo Rosa are 98% encapsulated". A reading from 2007 (monitoring from April 24-26, 2007) reports that the well at El Pedernal shows Zinc rising from 0.1 to 0.3098 ppm, and copper rising from 0.1 to 0.9560. The permissible detected limit for both metals should be 0.1 ppm.

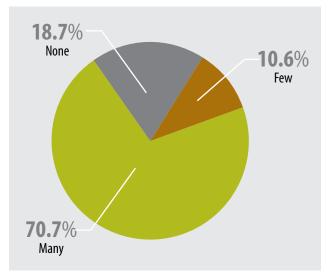
On June 25, 2007, the Secretariat of Natural Resources and the Environment ruled to levee the maximum fine against Entre Mares Minerals for having caused the following environmental damages:

- Contaminating and degrading activities according to "Technical Report Numbers 397-2005, 441-2006, and 237-2006 published by the General Department for Environmental Assessment and Control, and AGA-II-06-102006, AGAII-015-08-20065 and AGA-II-016--08-2006, published by the Center for Contaminants Control CESSCO".
- 2. Discharge of waters with contaminating substances affecting the Guajiniquil stream.
- 3. Contamination and filtration in the Laguna de los Patos pond. "There is sufficient evidence to show that the wastewater discharges to the Laguna de los Patos treatment pond surpass the established reference norms in the National Technical Standard", and the AGAII-06-2006 Technical Report "concludes that the soil and Guajiniquil stream have suffered negative environmental impacts as a result of infiltration of contaminated water from the Los Patos pond.

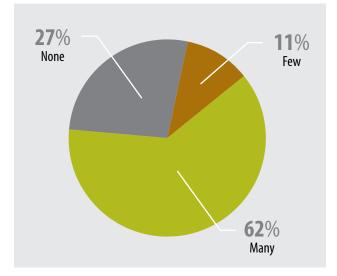
Independent reports present their own findings that support the allegations that mining activity has contaminated different water sources in the area of influence of the mine.

The Latin American Water Tribunal found Entre Mares Minerals of Honduras to be guilty of "inappropriate use of water resources and contamination of the Valle de Siria region", and ruled to censure for damages and risks to ecosystems and human health.

GRAPH 4 | Mining has no, few, or many effects on the following environmental problems: water contamination

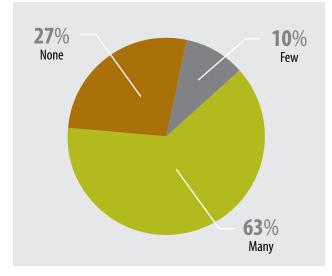


Source: Perception survey on social, economic, and environmental impacts of the operations and closure of the San Martín Mine in the villages of San Miguel de Barrosa, Municipality of San Ignacio, and El Pedernal, Municipality of El Porvenir, in the Department of Francisco Morazán. Honduras, C. A., September, 2012. **GRAPH 5** | Mining has no, few, or many effects on the following environmental problems: **significant or excessive waste of water**



Source: Perception survey on social, economic, and environmental impacts of the operations and closure of the San Martín Mine in the villages of San Miguel de Barrosa, Municipality of San Ignacio, and El Pedernal, Municipality of El Porvenir, in the Department of Francisco Morazán. Honduras, C. A., September, 2012.

GRAPH 6 | Mining has no, few, or many effects on the following environmental problems: **droughts** (less water production)



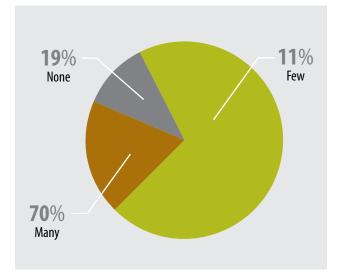
Source: Perception survey on social, economic, and environmental impacts of the operations and closure of the San Martín Mine in the villages of San Miguel de Barrosa, Municipality of San Ignacio, and El Pedernal, Municipality of El Porvenir, in the Department of Francisco Morazán. Honduras, C. A., September, 2012.

C. AIR POLLUTION

In addition to sonic contamination as a result of the explosions from the Tajo Rosa and Palo Alto sites to extract leaching materials, dust clouds are created that hang in the air for long periods of time. As mentioned earlier, blasting exposes sulfides and other harmful agents.

In the Tajo Rosa area of 42.3 hectares, a total of 24,718,269 tons of material (earth and rocks) were moved. At the Tajo Palo Alto site the affected area is a total of 80.43 hectares, on which a total of 29,658,019 tons of material have been blasted, dug, and moved. In addition to the effects on vegetation at both sites, there are another 98.66 hectares for the leach pads that previously were prime livestock pasture grounds. The organic material was removed and a layer of clay was applied, with an impermeable liner on top and then a series of installations to recover the cyanide solution with leached metals. Over the eight years of operation at least 36,984,394 tons of earth accumulated on the leach pads, which represents a serious danger for contamination.

GRAPH 7 | Mining has no, few, or many effects on the following environmental problems: **air pollution**



Source: Perception survey on social, economic, and environmental impacts of the operations and closure of the San Martín Mine in the villages of San Miguel de Barrosa, Municipality of San Ignacio, and El Pedernal, Municipality of El Porvenir, in the Department of Francisco Morazán. Honduras, C. A., September, 2012.

Closure

While the mining concession contract and mitigation plan do not establish expiration dates, the mine planned to operate for 10 or 11 years. Mining operations closed in the year 2008.

In the year 2007 the mine began to dismiss workers, especially in the ADR (absorption, desorption, and recovery) section, firing one per shift team. At that time activities and production were scaled back in preparation for ceasing operations. During peak production at the mine, the "gold harvest" reached an average of 10 to 15 bags per week, with a weight of around 600 ounces.

Over the course of two years the majority of the active personnel was released, and remaining workers were reassigned to dismantling and cleaning tasks.

The approved closure plan is not a public document, although Clause 4 of the Compliance Contract for Mitigation stipulates that the mining company should "undertake public campaigns to share information on the characteristics of the Mining Project to avoid extreme cases of false expectations or general public aversion".

Even though the state regulation on mining extraction in San Martin includes a clause stipulating informational campaigns to avoid discontent in the communities, the mining company did not undertake a participatory process nor make public its plans for closure.

Over 67% of the population surveyed is unaware of any consults held in the community with respect to the closure of the mine (Graph 4), and the majority of those interviewed report very little transparency in handling information on the closure plan, and denounce the exclusion of the population in the observation and decisionmaking process on the closure of the San Martín Mine.

The individuals interviewed expressed their concerns around the closure of the mine, as the company has given very little information with respect to:

A. WASTE WATER COLLECTION PONDS (ENRICHED, DEPLETED, AND TREATMENT POND) WHICH WERE MOSTLY EMPTIED AND BACKFILLED.

It is not clear and there are no informational campaigns from the mining company to share what was done or what happened with the cyanidelaced water in these ponds. There are also no reports on the state of the impermeable liner (which could have been damaged with the materials heaped upon it).

B. THE CLOSURE PLAN DOCUMENT (ENTRE MARES MINERALS, 2007) PROPOSES THAT SOME OF THE STRUCTURES SUCH AS THE CAR WASH, LABORATORY, ADR SITE, REFINERY, AND/OR FUEL TANKS AND USED TIRES WILL BE BURIED.

While the plan does lay out a few procedures to clean these structures of contaminants, it does not describe the process in detail nor the security measures for these burials in order to ensure that there will be no lasting harm. There is no discussion of the impact of these activities.

C. ONE OF THE POSSIBILITIES SUGGESTED FOR OILS, GREASE, AND FUEL IS TO TREAT THEM WITH BIO-REMEDY BACTERIA OR OTHER AVAILABLE TECHNOLOGIES.

No further details are offered in this respect. There is no indication as to what would then happen with the bacteria, or what the other treatment technologies could be.

D. WASHING THE LEACHING PADS.

The closure plan of 2007 proposes a washing process for contaminants (sodium cyanide), including a spray rinse cycle and draining the rainwater that falls on the pads and runs into the solution ponds.

There is no description or information as to the scope of these actions that would allow the community to know: if rainfall and rinsing was sufficient to wash the 96.66 hectares of the pads and the nearly 47 million tons of leached materials accumulated therein.

There is also no reference made to the treatment and discharge of the water used to wash the pads.

E. SOLUTION PONDS.

The mine layout for operations used a fourpond system:

- THE ENRICHED POND collected the deposit of cyanide-laced water with metals in liquid (gold, silver, copper, cobalt, mercury, and probably uranium), drained from the leaching pads and transferred to the ADR plant.
- THE DEPLETED POND that collected the water ouput from the ADR process, now stripped of its metals. This water was transferred to a treatment pond to decontaminate the sodium cyanide levels to below the allowable limits for discharge into water sources as established by Honduran law.
- THE STORM RUN-OFF POND was a discharge pond that could use a collection mechanism to hold water from the leaching pads due to

rain and precipitation greater than the common discharge levels.

The mine reported that this pond had a capacity for 116,300 cubic meters of water. This capacity was calculated to be sufficient to hold run-off from a "hundred years rain" based on calculations from previous studies on the maximum rainfall levels of the previous 100 years.

It should be noted that the Environmental Impact Assessment, the aforementioned document that reports the historic precipitation levels, fails to mention the two strongest tropical storms/hurricanes from the preceding decades: Hurricane Fifi (1974) and Hurricane Mitch (1998). These omissions raise serious doubts about the reliability of these rainfall calculations and the capacity of the storm runoff pond.

In fact, there is information of an overflow in 1997 during Storm 19, which spilled acid into the Gujiniquil and Hervideros streams.

The group of ex-employees from the mine report having administered large quantities of hydrogen peroxide to try to diminish the impact of the cyanide in the water spilled toward these streams.

There is one more pond that is not mentioned in the closure plan (Table 7), which is THE LOS PATOS POND. This pond is more of a natural concave near the Guajiniquil stream that runs across the mining site, and it is an artificial pond that was appropriated as a predischarge site.

TEXT BOX 3 | Rain overflow in 2007

"Remember, when we had that strike, ask Julito, when the gringo John Dur was spilling water. We put the peroxide bottles in the pumps on full power, because it just didn't stop raining and the ponds were full. Remember, that orange pump and the other pumps were overflowing with water. And we were using peroxide as fast as we could."

Workshop with the group of ex-employees of the mine. Track 5, minute 58:56-59.

The closure plan of 2007 reports that once the washing process of the leached materials on the pads was completed, the ponds would be drained, there would be a process to manage sludge and tailings, and then a process to dry and convert the ponds would be performed.

TABLE 7 | Description of the process ponds at the San Martín Mine, Honduras.

Pond	Area (m²)	Capacity (m³)
Enhanced	11,342	33,600
Degraded	18,300	67,200
Storm Run-off	26,578	116,300
Treatment	25,771	159,100

Source: Mina San Martín Closure Plan Entre Mares Minerals, S.A. de C. V. , 2007.

The text does not describe in any detail how these processes would be performed. As was mentioned earlier, information has not been shared openly, and the communities and other stakeholders are not aware of the details of the reclamation of the pond sites.

The testimonies of the group of ex-workers suggest that the tailings and sludge was not all treated and buried. The enriched, depleted, and treatment ponds were filled.

Only the "Los Patos" pond remains active with treated waters, and it is now part of the tourist attraction site administered by the San Martín Foundation.

F. THE ROSA AND PALO ALTO OPEN PITS

THE TAJO ROSA site was exploited beginning in the year 2000, and its closure process began in the year 2004. Entre Mares Minerals reports that the total extension of the exploitation of the Tajo Rosa site is 42 hectares, at a depth of 120 meters.

Once the mineral extraction at Tajo Rosa concluded, the closure process began for this section. The mine expected to continue with re-vegetation efforts through the year 2009.

The closure plan announces that if necessary "non-native species will be used for landscaping effects in order mitigate or reduce the visual impact of the pit." Nonetheless, there is no mention made of the verification of the impacts of these non-native plant species in the local ecological balance. **THE TAJO PALO ALTO** site was exploited starting in the year 2004, with an extension of 80.4 hectares and to a depth of 150 meters. The closure of this site was reported in 2008, and reclamation works were reported having begun in the year 2009.

The research team visited the site under the guise of a tourism visit, checking in as tourists at the hotel administered by the San Martín Foundation. During this visit, the team visited the Tajo Palo Alto site and the Los Patos pond. At first sight, the extraction area at what was the Palo Alto deposit does not appear to show much progress for socalled reclamation.

PHOTO 1



PHOTO 2



The walls have made little progress toward their natural slope. There is no re-vegetation, other than a few sparse pine trees; it is not clear whether this limited growth is the result of natural restoration processes or the mine closure activities. (Photos 1 and 2 were taken during this visit).

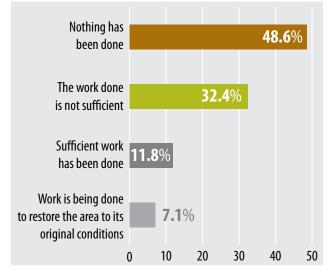
The visit to the mining operations area (the epicenter of the San Martín Mine's activity) shows that the objectives of the closure and reclamation efforts have not been met as described in the 2007 plan.

TEXT BOX 4 Objectives of the Closure and Reclamation Plan

- To minimize, mitigate, and reduce the effects of mining activity.
- To promote the establishment of wild communities of flora and fauna in areas that had been altered as a result of mining activities.
- To reestablish productive traditional use of the area of intervention of mining activities, and to consider the possibility of including nontraditional production activities that could be considered an acceptable alternative for land use.
- To promote sustainability in the region.
- To protect public health.

During the field visit for this research, the team was not allowed access to the Tajo Rosa site, under the argument that it was not looking its best following a recent forest fire. In the year 2007 the mining company reported having planted 27,018 trees in the area, most of nonnative species. Most of these trees were lost in a fire on March 31, 2011. No reparations had been made by September, 2012.

GRAPH 8 As a result of the mining company's work for the mine closure:



Source: Perception survey on social, economic, and environmental impacts of the operations and closure of the San Martín Mine in the villages of San Miguel de Barrosa, Municipality of San Ignacio, and El Pedernal, Municipality of El Porvenir, in the Department of Francisco Morazán. Honduras, C. A., September, 2012.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- 1. The mining law of 1998 was designed and created to attract mining investment, and it was thus fashioned to favor the interests of multinational and domestic mining capital by ensuring lax legislation that does not obligate companies to comply with strict environmental controls and processes to consult and respect the rights of the potentially affected population. The law passed this year at the close of this report repeats and deepens this situation, despite the efforts of the public and organizations to try to participate in the reform process.
- 2. Over the five years of the exploration process and eight years of exploitation at the San Martín Mine, no consultation was held with the communities prior to the installation of the mining project. Over the course of the exploitation period, there was no consultation undertaken regarding the use of the natural goods and the impacts that mining activities could cause.
- 3. The operations at the San Martín Mine affected the social wellbeing of the communities of Valle de Siria. Mining operations divided the communities to nearly irreconcilable extremes, expanded generational gaps and conflicts, aggravated relations of domination, especially machismo, played a role in increased consumption of alcohol, tobacco, and other drugs, and lacerated trust in national democracy (and the three branches of the state) and local democracy (municipal government and community and local leadership).

- 4. Human rights defenders have been and continue to be subject to selective repression: attacks, threats, and legal persecution. At least 11 environmental defenders have been processed by the public prosecutors' office for "unfairly" obstructing forest exploitation projects. Over the course of the interviews and document analysis it was common to hear environmental defenders complain of feeling harassed by judicial and police persecution as a result of their activities in favor of life and the environment.
- 5. The San Martín Mine did not produce economic benefits or development for its area of influence. The municipalities that rejected mining activities boast better performance in human development indexes over the exploitation period than the municipality that opened its doors to extractive activities.
- 6. Impacts on people's health have been unquantifiable. Infant mortality in the area of influence of the mining project is higher than the national average. There are health impacts for ex-employees and inhabitants from the mining area. The mine has not taken responsibility for these damages.

One of the studies performed for this research (Flaviano Bianchini, July, 2006) shows that "the community of Nueva Palo Ralo presents an infant mortality rate 12 times higher than the national average). These values increase considerably for children of ex-mine workers. In the case of these children, the mortality rate reaches 833/100, or 33 times the national average."

- **7.** There is ample evidence of arsenic contamination of water sources.
- 8. According to this executive report, the mine closure process is unsatisfactory vis-a-vis the commitments laid out by SERNA and DEFO-MIN, who established the mitigation actions to begin with. Advances in reclamation work at the Tajo Rosa site were reversed by a fire in 2011, and damages have yet to be restored.
- 9. The continuity of open-pit mining projects in Honduras, use of chemical agents such as cyanide, and water control and use procedures such as those established and used in exploitation at the San Martín Mine are not recommended for Honduras.

Recommendations

The following recommendations can be made after reviewing documentation, hearing stories and testimonies through interviews and group sessions, identifying the opinions of the communities through an opinion survey, seeing the area of influence first-hand, and reconstructing the exploration, exploitation, and closure process for the San Martín Mine and considering the conclusions of the research from a cost-benefit perspective for the social, economic, development, and environmental impacts of the mine, using a gender, youth, and human rights lens:

- The Honduran State and society should undertake an participatory democratic process to discuss, debate, and decide on the need to prohibit open-pit mining such as other countries have done, including Costa Rica, certain provinces of Argentina, and even their neighboring country of El Salvador, where there is a standing moratorium on open-pit mining.
- Prohibit the use of cyanide for leaching, as the European Parliament has done (Resolution 5, May of 2010), and recommend alternatives for cyanide-free mining (http://megamineriaacieloabierto-contamina. blogspot.com/p/ europa-prohibida-la-mineria-concianuro. html). Executive Report: The San Martín Mine at Valle de Siria 39.

- Repeal the Honduran legislation on mining concessions as a real property right, which subordinates property owners to conform to mining exploitation concessions.
- 4. Establish an express prohibition in Honduran legislation against discharging waste into water sources and nature, expanding the proscription by including objective and participatory verification and monitoring (with direct participation from the communities and environmental organizations) to protect the environment, bio-security, and human life.
- 5. Establish obligations and create autonomous compliance verification mechanisms to require all mining companies to restore the affected areas to their initial state (reversibility of damages).
- 6. Create obligatory and automatic application of mechanisms for inclusive and participatory democratic processes for decisionmaking and assessment of the mining operations.
- Pass tax legislation and build operative capacity to eradicate tax evasion and the use of offshore companies to launder mining capital.

- 8. The state should request an objective and autonomous study to reveal the impacts of mining, particularly new mining, upon the Honduran population, especially affected communities. The conclusions of this national study should lead the state to fulfill its obligations to force mining companies to take responsibility for damages caused, restore the environment, and compensate the victims.
- 9. End the persecution and legal repression against environmental and human rights defenders, and restore their image and public reputation as defenders of rights that benefit the country as a whole.

