Report Fact Sheet

A quick fact sheet of important statistics, findings, and recommendations from “Searching for Gold in the Highlands of Guatemala: Economic Benefits and Environmental Risks of the Marlin Mine”

Download the full report on our website:
http://www.ase.tufts.edu/gdae/policy_research/marlinminereport.html

Economic Contributions

In this report, economic benefits were conceptualized and evaluated as direct flows of income in the form of royalties, taxes, wages, procurement spending, and company social investment; and as indirect flows of income to workers employed in businesses providing goods and services to the mine and to the Guatemalan economy as induced spending from worker consumption spending. Some highlights from the assessment of economic contributions from the mine include:

- Together, royalties and taxes from the mine between 2006 and 2009 amounted to $51.93 million—15 percent of total mine earnings.
- Local communities received just under $5 million, one half of one percent.
- Almost 90 percent of the economic benefits generated by the mine flow to national government and to workers and businesses outside of the two local communities.
- SMI and Sipacapa received only 5.1 percent of the total revenue generated by the mine.
- Procurement:
  - Local share of procurement from the Marlin mine is very small: 5 percent in 2009, up from 1 percent in 2008.
  - The businesses and contractors who supply equipment, materials and supplies received nearly two-thirds of the total economic benefits of the mine. Procurement dwarfed royalties, taxes and wage income.
Environmental risks were conceptualized as long-term risks to livelihood and to human and ecological health stemming from evidence of poor governance and mine management; water contamination in the operating phase; and poor planning for the post-closure phase of the mine, especially in the context of projected climate change.

Some of the major environmental risks from the Marlin Mine stem from:

◦ **Cyanide**: A key component in gold mining, cyanide degrades into non-toxic substances, and the risk is therefore short-lived and posed primarily in the operating phase of the mine. The main risks to surrounding communities stem from the transport of cyanide to the mine, and the potential for leaching of sodium cyanide-rich pond tailings into ground and surface waters.

◦ **Acid Mine Drainage**: While cyanide risk exists in the operating phase, acid mine drainage (AMD) can persist and even worsen in the post-closure phase. The process of toxic releases from AMD is extremely long-lived and perhaps irreversible.
  ◊ The highly toxic metals found in the rock surrounding the Marlin Mine include arsenic, cadmium, and lead (see Table IV.2).
  ◊ Water contamination due to AMD is the greatest long-term risk from mining operations. Contamination in surface and ground water is especially risky in poor areas where basic water infrastructure is lacking. About 47 percent of households near the mine have no access to piped water and depend on ground and river water for drinking, as well as for crop irrigation and watering livestock.

◦ **Climate Change**: Climate change will exacerbate existing environmental risks and create new risks to mining operations, including AMD.

◦ **Tailings Pond**: The tailings pond contains sodium cyanide-rich water, and a major cause for concern is that there is seepage from the pond, which is lined with clay rather than a synthetic liner. A variety of factors could cause the tailings dam to be breached, including earthquakes, cyclones, and floods.

◦ **Water Quality around the Marlin Mine**: The Marlin Mine lies between two watersheds, the Tzala and the Quivichil, which form part of the larger Cuilco river watershed. Numerous studies confirm the existence of arsenic in groundwater in concentrations above IFC and Canadian water standards (see Table IV.3).
  ◊ Other studies have found evidence of local exposure to arsenic and other toxic metals, and that the levels of arsenic, copper and zinc in the blood of people living close to the mine were higher than those living farther from the mine (see Table IV.4).
Conclusions and Recommendations

The authors conclude that, overall, long-term environmental risks significantly outweigh the economic benefits of the mine based on three central findings:

1. **The Guatemalan government’s share of Marlin’s high profits is small.** Guatemala receives about 42% of mine revenues, with local communities receiving only about 5% of revenues. This is far below the best practice in global mining operations.

2. **The environmental risk the Marlin mine poses to local communities is exceptionally high and likely to increase over the remaining life of the mine and in the post-closure phase.** While the mine generates significant economic benefits currently, all benefits will abruptly cease when the minerals have been extracted and the mine is closed down. Environmental risk is high because of inadequate monitoring and regulation by the Guatemalan government, and because the mine was designed without taking projected increases in the intensity of rainfall due to climate change into account. There is a significant risk of widespread heavy metals contamination due to acid mine drainage in the decades after the mine closes. Local communities will bear virtually all of the environmental burdens, which could have significant impacts on health and agriculture, the primary source of local livelihoods. Very little provision—only $1 million—has been made to remediate or compensate local post-closure impacts.

3. **The Marlin mine is contributing little to long-term sustainable development in Guatemala.** Little of the royalty and tax revenue generated from the mine has been invested in public goods such as health, education and infrastructure, which could contribute to economic activities beyond the mine and after the mine has closed.

**Recommendations:**

1. Goldcorp and the Guatemalan Government agree to suspend Marlin Operations as ordered by the IACHR. The government should collaborate with Goldcorp, scientists, academics, and civil society to: 1) undertake an environmental and health assessment of the watershed surrounding the mine; 2) assess projected climate change impacts; 3) produce a comprehensive plan for mine closure and post-closure monitoring and remediation, including financial assurance; and 4) undertake a detailed socio-economic assessment of indirect jobs, induced spending, and an account of expenditure of mine royalties and taxes.

2. Guatemala’s Mining Law should be revised to enable the country to capture a higher share of mining revenue and earnings.

3. The capture of greater economic benefits and the reduction of environmental risk require significant development of Guatemala’s governance capacity in three dimensions: 1) environmental and health regulation and oversight; 2) legislative definition and judicial protection of the rights of indigenous people; and 3) fiscal accountability.

4. Develop a sustainable development plan that allocates mine revenues into targeted investment in building sustainable productive capacities, especially in indigenous communities.
## Timeline

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tr>
<td>2003</td>
<td>Glamis Gold, original owner of the Marlin mine, receives a twenty-five year exploitation license from the Guatemalan Government.</td>
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<td>2005</td>
<td>Mine begins extractive operations with a projected life of ten years.</td>
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<td>2005</td>
<td>Glamis holds consultations with local communities in San Miguel Ixtahuacan (SMI) and Sipacapa.</td>
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<td>January 2005</td>
<td>Mine protestors made up of indigenous, environmental, and farmers groups confront trucks carrying materials to the mine. Sixteen protestors are wounded and one is killed.</td>
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<td>March 2005</td>
<td>Sipacapa files a complaint with the Compliance Advisor Ombudsman of the IFC raising concerns that the mine would contaminate local water supplies.</td>
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<td>June 2005</td>
<td>Sipacapa holds a consulta on the mine. 98 percent of the 2400 participants voted no to mining activities in their communities.</td>
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<td>2006</td>
<td>Goldcorp acquires Glamis and all its assets, including Marlin mine.</td>
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<td>2007</td>
<td>Sipacapa files a petition with the Inter-American Commission on Human Rights.</td>
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<td>March 2010</td>
<td>ILO requested the government of Guatemala suspend mining operations due to the lack of adequate consultation with local communities.</td>
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<td>March 2010</td>
<td>IACHR ordered mining operations be temporarily suspended as a “precautionary measure” pending a decision on the merits of the petition submitted in 2007.</td>
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<td>June 2010</td>
<td>UN Special Rapporteur on the Human Rights of Indigenous Peoples called on Guatemalan government to adopt a law assuring indigenous rights to consultation on mining. He called on the government to comply with the precautionary measures and said that according to the UN Framework on Business and Human Rights, Goldcorp should comply with the order regardless of what the government of Guatemala decides.</td>
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