

How a mining firm protects the environment

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In Photo: School children benefiting from Philsaga's education program.

A mining company, wary of the huge responsibility to protect its immediate environment, has been proactive in accounting the stock on natural capital within its concession and neighboring areas with the aim of leaving a sustainable habitat once its mining operation ceases.

The Philsaga Mining Corp. (Philsaga) in Agusan del Sur operates below ground of the lush vegetation at its thriving mining complex in Co, Bunawan town.



Philsaga workers inspect tree seedlings to ensure their growth.

It has rehabilitated a 120-hectare denuded forest with premium tree species seven years ago, after it inherited the mine site that was already disturbed by unrestrained small-scale logging activities. The timbers were sold to gold mining-tunnel operators for mining portals.

Philsaga is certified by the International Standard Organization, giving it the serious tasks to strictly adopt the environment management system in its work places. An environmental management system helps organizations or companies identify, manage, monitor and control their issues in a “holistic” manner.

The mining firm has already planted thousands of dipterocarp and other tree species for carbon sequestration. It is determined to expand its tree plantation and continue to extend its support to tree farmers living near the mine area, where the beneficiaries are provided fruit-tree seedlings and financial assistance.



Connecting communities through the construction of bridges and roads.

Most of the identified farmer-beneficiaries own at least 3 hectares of sloping land where they grow grafted fruit trees, an endeavor under the technical supervision of the company’s foresters to ensure project viability.

A 225-hectare reforestation project was established in Kalingayan village, mostly inhabited by indigenous peoples (IPs). The project is in support of the National Greening Program of the government.

The company, which is harmoniously coexisting with the IPs belonging to the Manobo tribe of barangays Cabantao, Marfil, Maligaya, Pamintigan, Caulisihan and Masabong in Bunawan town, undertook massive reforestation activities for the rehabilitation of the endangered watershed area in Sitio Kalingayan in Bayugan 3 and planted 90,000 dipterocarp and fruit trees.

Reforestation beneficiaries as planters

The success of Philsaga’s reforestation project could be attributed to its hiring of the reforestation beneficiaries as planters, and paying them for activities like site clearing, planting, propagating and replacing dead seedlings with new ones.

Latex production from rubber plantations supported by Philsaga is benefiting farmers in the municipalities of Rosario and Bunawan, who are enjoying the fruits of the livelihood project.

Part of the company's environmental advocacy is also focused on bringing back to life the waterways in the nearby villages through the Adopt-A-Creek program.

The Agsao Creek, which is crisscrossing the mountainous areas at Upper Coo, was restored with a concrete rip-rap, thus, preventing siltation and keeping the creek garbage-free.

The creek's maintenance-and-cleanliness drive has been sustained with the community monitoring its upkeep.

The United Nations General Assembly Resolution 70/1 states, "Development must be sustainable, and sustainable development requires healthy ecosystems". In Sustainable Development Goal 15, States committed to "protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss".

Mangrove planting

Philsaga's commitment to massive tree planting is not only confined within and near the mining areas, but also in the villages of nearby province.

The company ventured into marine-habitat-protection program by planting mangrove propagules along the fish-rich coastal town of Barobo in Surigao del Sur. Of the more than 12,000 propagules planted, 90 percent survived. Some members of the communities are paid to ensure that the propagules grow and replace dead ones.

The Barobo project was the company's corporate initiative through the Adopt-A-Mangrove Plantation program in support of the local marine-conservation effort to address the condition of the 5-hectare coastal area, which has been critically disturbed.

The mangrove in this area has been vulnerable to indiscriminate cutting by fishermen to clear the way for boat passage and later for firewood and commercial charcoal production.

Rehabilitation of mangrove areas will slowly bring back the biodiversity in the once endangered coastal areas. Mangrove forests stabilize the coastline, reducing erosion from storm surges, currents, waves and tides. The intricate root system of mangroves also makes these forests attractive to fish and other organisms for food and shelter from predators.

Philsaga is bent on reforesting more mangrove areas and rehabilitate the endangered coastal areas in the Caraga region.

To date, it has planted and is maintaining 338,097 forest trees of various species; 198,813 rubber trees; and 75,287 fruit-bearing trees in 1,085.82 hectares of land in Rosario town and neighboring towns in the province.

"Our reforestation projects and other endeavors are ways to show the company's resolve to really become a true advocate of environmental causes, notwithstanding that it is our contribution in mitigating the effects of climate change," Philsaga President Raul C. Villanueva said.

Often overlooked in policy-making decisions is the value of the benefits and services derived from the nation's natural assets, such as freshwater, timber and forests. This situation has significant implications on economic policies and consequent impacts on communities, especially those that are highly dependent on natural resources for their sustenance.

Bamboo plantation

Ahead of all other companies in Mindanao and the government's efforts, Philsaga has recently embarked on giant bamboo-plantation project within its mine site and mill site. About 6,000 young bamboo plants have been planted.

The giant bamboos, like the mangrove propagules, are excellent in carbon sequestration.

Villanueva estimates that the company has sequestered almost 1 million tons of carbon with all its reforestation projects, while the company's annual carbon footprint is estimated to be below 50,000 tons.

Relying on GDP alone as gauge of development ignores the important role of natural capital in the economy and human well-being. Nobel laureate Joseph Stiglitz said GDP, the leading economy measurement, is outdated and misleading. "It's like grading a corporation based on one day cash flow and forgetting the depreciation of assets and other costs."

Corporate social responsibility

In its effort to alleviate poverty in communities, Philsaga was instrumental in organizing cooperatives and funded livelihood projects that are now an economic success for the beneficiaries and communities.

The company's corporate social responsibility on health, education, construction of school buildings, response to calamities and disasters and others exceed expectations. Regular and volunteer teachers are given honoraria; school supplies are distributed to 23 elementary schools for use by the teachers and pupils; scholarships are given to secondary and collegiate students; company-trained responders and rescue personnel are on standby in cases of emergencies and disasters, among others.

The company was able to rehabilitate four school buildings with 10 classrooms in earthquake-devastated Loon town in Bohol and schools in Leyte after Super typhoon Yolanda in 2013.

Modern technologies

Philsaga, the leading gold-mining company in Mindanao, continues to upgrade and introduce modernized mining approaches with new technology to increase production and heightened safety at work for its miners.

The mine's tailings ponds are well-built and covered by civil-works plans and designs, which have been recently audited and found to withstand earthquakes below Intensity 7. Mine tailings, before stored at the ponds, are detoxified by chemicals to make them cyanide-free. Excess water

is contained in dams for further treatment. All effluents pass the Environmental Management Bureau (EMB) and other legal standards.

Philsaga strictly adheres to well-sanitized wastewater treatment that it installed a silt-recovery plant equipped with filter presses and decanter. These are used to separate solid materials from liquids to improve the quality of wastewater from the slurry that strains the silt and make the water clean and then sent back to underground tunnel operation.

The technology has significantly reduced the wastewater concentration way below the threshold limits set by the EMB of the Department of Environment and Natural Resources that periodically monitors mine facilities. Clean water for underground-tunnel support will boost mine production to the maximum of 2,500 tons of ore per day.

Income for the community

More production means more work opportunities, and ensuring income for the community.

Philsaga infuses considerable revenue to the local economy, such that it pays P30 million to the province for Environment Sustainability Fee; P30 million to Bunawan for Ore Transport Fee; about P40 million to the municipalities of Rosario and Bunawan for business permits; and almost P40 million in real-property taxes.

Under the new collective bargaining agreement, the company will be providing its workers six sacks of rice yearly, monthly house allowance of P200; monthly light allowance of P200; cash-convertible vacation leave (12 days); and sick leave (five days) per year, plus an across-the-board increase of P25 per day, on top of the workers' existing benefits.

More than P80 million is paid for the monthly salaries and wages to regular work force and contract workers and miners.

Philsaga's compensation package is way more than the minimum wage set by the government, excluding other benefits—reason enough that industrial peace in the company is well-established.

Philsaga also spends almost P100 million to P150 million monthly for the purchase of materials from local suppliers, while it awards almost P100 million in civil-works project yearly.

“We will make this mine live longer, so that a lot of people can work here. A lot of parents can send their children to school. A lot of families can build their own houses. And we, in Philsaga, will continue to act as catalysts and bring opportunities to the lives of our workers and their families, including the communities and realize a well-being they never thought possible,” Philsaga said.