Luklukan Sur Learning the Hard Way

Barangay Luklukan Sur is a coastal barangay north of the town of Jose Panganiban, Camarines Norte. Jose Panganiban is adjacent to the province's "gold country," the municipality of Paracale. Gold mining is a primary source of income in Luklukan Sur and the adjoining barangays as far as the town of Labo, making Camarines Norte a major mineral producer. The province has a great quantity and diversity of metallic and nonmetallic mineral deposits such as gold, silver, iron, lead, zinc, white clay, diatomite and limestone[1]. The long history of mining in this province, however, has not brought quality life to the local people. Camarines Norte, in fact, is the tenth poorest province in the country[2] and has the lowest life expectancy among Bicol provinces at the level of 65.75 years[3].

Luklukan Sur mirrors the poverty and degraded environment characteristic of other mining areas of the province. Houses are predominantly wooden or of mixed wood and concrete, only some few are of concrete. They have appliances and toilet facilities but others have no toilet at all. The only major livelihood at present is mining because harvest in the farm is poor and fishing has also declined. Child labor is common, as children are attracted to work in the mines because of the wages; thus, many have lost interest in going to school. Nevertheless, a Philippine Rural Reconstruction Movement (PRRM) project on education on children's rights and welfare has changed this trend these past years.

Underground sinking

Mining in this place started with the Americans. Mercury was used to extract gold from ores. Tunnels were dug and forest trees were cut to provide posts and other support for tunnels. Eventually, the expanding families of the early settlers also ventured into mining and used mercury. Due to lack of equipment, they resorted to digging ratholes — big enough to contain a person. Usually, when the mine site contains groundwater, and the rocks are broken through dynamite blasting, a person fitted with a goggle and a hose attached to a compressor to breathe, is lowered to collect the fragmented rocks. This process takes three hours in some cases. In a roughly built hut, the ores are processed through panning and amalgamation with mercury. Then a blue flame torch is applied to the amalgam to separate mercury from the gold. This is the process that has since contaminated the soil, water and air with the heavy metal[4].

Small-scale miners are currently organized and do not allow nonresident miners. The leader of another organization composed of women claimed that given the limited number of extractors, the benefit from gold ores would last longer. To avoid further contamination and pollution from mercury and possibly from cyanide, the residents barred the establishment of a mine tailings processing plant in the barangay. The gold ores from Luklukan Sur are processed in Barangay Tugos, Paracale. One processing plant operator in Tugos is a resident of Luklukan Sur[5].

Some households survive through *sarisari* store, livestock raising, charcoal making, carpentry, overseas jobs, and transportation. At the height of mining, the population increased in this barangay. One businesswoman recounted that they used to have four jeepneys plying the route between the village and the town proper. In those days, as many as 25 jeepneys were transporting people in this route. Now, only a few remain and one has to wait for an hour before a jeepney would leave for its destination.

There is hardly enough income from fishing and farming. Harvest from crops is currently low except for banana and cassava. Survival to some means going into illegal logging in the remaining forest area.

Lush forest vegetation dominated the mountains of Luklukan Sur before 1950. Initial settlers from Paracale started with "kaingin" in the area in

1948 when rats infested their farms. Crop harvest from the farm and fish from the sea was then abundant. Settlers recounted that they had all the things they needed to live comfortably. During those times, the only sickness they experienced was malaria, which was immediately remedied with a locally available medicinal plant.

Today, Luklukan Sur is in stark contrast to the past. The surrounding hills are denuded. Because of the need for wood in the underground mines, many hectares of surrounding forest have been cleared. Potable water is scarce. People have to fetch water from a hose connected to a spring at some distance from the barangay.

Child laborer

Water from the creeks necessary for raising crops and livestock is also limited because water quality is poor owing to siltation and possibly mercury contamination. Contaminated runoff water that comes from the small scale and rathole mines drains into a nearby ricefield. Rice harvest is poor and in one instance, the rice plants "dried up" in spite of the presence of water.

Mature coconut trees at sitio Ultra, the mining sitio, do not bear fruits while those in sitio Sta. Barbara, 3 Km away, are bearing fruits. People have described the soil as "hot" for plant growth and prone to erosion. They attributed low productivity to lack of fertilizer, poor soil condition and lack of irrigation facilities. Only banana and cassava showed good harvest.

A study of this site by Dr. Lina Regis of the Ateneo de Naga INECAR (Institute for Environmental Conservation and Research) showed that pollen grain of *Stachytarpheta jamaicensis* had high abortion rates of above 5 percent, indicating heavy metal contamination and low productivity of plants. Regis observed the same at the abandoned Hixbar mining site in Rapu-rapu, Albay. The area can hardly be used now for agriculture.

Fish harvest is low and made worse by dynamite fishing. The coastal area is also muddy. Red sediments cover part of the reef area. The creeks that carry the sediments originate from mining sites. A creek in sitio Bulalacao is muddy devoid of shrimps and fishes. The mud is further filtered and processed for possible content of gold[6].

Health problems in the barangay have notably increased. The most prevalent are respiratory ailments especially in children such as coughs and colds, tuberculosis, pneumonia and asthma. Coughs afflicted all workers who worked inside the tunnel. Other diseases include skin sores, paralysis, high blood pressure, glaucoma and heart disease.

One resident claimed that both her parents, who were miners, died after being sick for six months (mother) and seven months (father). Her parents worked in the mines using mercury in processing gold. Some residents attribute the tuberculosis to mining. They reported that most people who got sick were originally miners. One sample cited was of one migrant who was healthy when he started working in the mines but later became paralyzed. The sick usually leave the village to obtain medical treatment in Daet, the capital town of Camarines Norte, and elsewhere. [7].

A woman leader from the adjacent barangay of Gumaos, Paracale, whose husband had worked in the mines before, is convinced that small or large-scale mines harm both human health and environment. Hence, alternative livelihood should be expanded immediately. The community must be taught, she says, that mining is not a permanent source of income.

Small-scale mining in Luklukan Sur is illegal although miners are required to register their implements; hence, the local government unit (LGU) does not derive other revenues from the local miners. However, small miners provide support for community projects and activities whenever they are asked by the Barangay Council.

Today, mining activities could hardly be eliminated but the Barangay Council of another mining community at Dalas, Labo, Camarines Norte is seriously contemplating the rehabilitation of mined-out areas.[8]

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