

Marinduque mining disaster

Calancan Bay in the northern part of Marinduque Island is still heavily silted from the mine tailings of Marcopper mines that stopped operating almost a decade now. Fish catch was adversely reduced to barely 2 kilos from 23 kilos per day before it was affected by the tailings discharge that started in the 1970s.

Fisherfolk and their families are now suffering from extreme poverty, miserable illnesses and unnecessary deaths due to the wide-scale destruction of the bay. Fish and marine products are contaminated with toxic metals. However, coastal residents have little choice but to feed themselves with their own catch. In July 2004, news of reopening the mines came out bringing shivers down their spine.

Calancan Bay is not the only ecosystem damaged by the Marcopper mines. Marcopper became a nightmare for the Philippine mining industry in 1996 when more than 2 million metric tons of tailings flooded the Boac and Makulapnit rivers from the Tapian pit operated by Marcopper Mining Corporation and the Canadian firm Placer Dome, Inc¹. As a result, thousands of residents immediately suffered isolation, hunger, thirst and disease. The damaged life support system of communities along the two rivers down to the coastal areas of Calancan Bay has never recovered till now.

The Marcopper Mining Corporation started mining operations on Marinduque island in 1969 in what was known as the Mountain Tapian ore deposit. Copper concentrate, also containing gold and silver, was produced from the deposit. When

the Mountain Tapian reserve was depleted in 1990, Marcopper continued its operations, utilizing the San Antonio copper ore body which lies some three kilometers north of the Mountain Tapian complex. The milling or processing method followed the conventional crushing, grinding, flotation mill, filtering and thickening to produce copper concentrate and tailing residues. The process reportedly did not utilize any cyanide or mercury².

However, since 1981, increasing complaints of leukemia, kidney problems, diarrhea, skin diseases, several other maladies, and even death among children and adults have been reported. But most were diagnosed as common diseases until serious toxic tests made in 1996 and indicated that high levels of heavy metals are in the blood of complaining patients.

It is estimated that no less than 84 million metric tons of mine tailings were discharged into Calancan Bay between 1975 and 1988. This dumping covered around 80 square kilometers of fishing grounds with a built-up of 1 to 2 meters above sea level. The Pollution Adjudication Board ordered in 1988 the stopping of tailings discharge to the bay, but Marcopper said that the dumping was indispensable and that it had a negligible impact. President Corazon Aquino then allowed Marcopper to continue, along with a remedial measure at a cost of not less than P30,000 per day. The discharging continued until 1991.

The local residents, who had been protesting since 1982, agreed that the old Mountain Tapian open pit be used to receive mine tailings from the San Antonio operations on a temporary basis. This



Boac river



Sea grass beds

disposal method was not discussed in the Environmental Impact Assessment. In spite of the unconventional use of the Tapian Pit as a containment system, no environmental risk assessment and management were ever carried out.

Since 1993 it is estimated that about 20 million cubic meters of tailings have been impounded in the Tapian Pit, which is 300 meters deep. The estimated capacity of the pit is approximately 69 million cubic meters.

In the same year, the Marcopper silt dam in Maguilaguila creek collapsed, severely flooding the Mogpog river and surrounding villages. Farm animals were lost, two children were drowned, crops were destroyed and the river was critically polluted³.

March 24, 1996, mine tailings from the Tapian Pit began escaping through the plugged drainage tunnel into the Makulapnit and Boac Rivers located below. After a month, tailings were still flowing unimpeded into the nearby marine areas. Immediately affected were around 700 families from five barangays. There were losses of most river crossings, loss of road connections, and the inundation of between 6 and 10 hectares of cropland used for banana and other agricultural purposes.

A UN Mission team assessed the damage in April 1996 and concluded that:

- The Makulapnit and Boac River system has been so significantly degraded as to be considered an environmental disaster;
- The aquatic life, productivity and beneficial use of the rivers for domestic and agricultural purposes are totally lost as a result of the physical process of sedimentation;
- The coastal bottom communities adjacent to the mouth of the Boac River are also significantly degraded as a direct result of smothering by the mine tailings;
- There is no evidence of acute poisoning in the exposed population due to the mine tailings.
- There is an increased health and safety risk due to immersion and flooding as a result of the very large volume and physical properties of the mine tailings, should they be mobilized during the wet season; and,

- Concentrations of trace metals in the mine tailings were not sufficiently high to represent an immediate toxicological threat.

In March 1997, a team from the Department of Health found seven children living along the Calancan Bay with high levels of lead. They were sent to the Philippine General Hospital for detoxification. In March 1998, then President Fidel V. Ramos declared a state of calamity among three coastal

barangays after 59 children were found to have toxic levels of lead in the blood. Due to chronic exposure, many illnesses with some leading to death have been suffered by several residents in one family, spanning several generations. In 2003, Roden Reynoso died of malnutrition directly attributable to lead poisoning⁴. Today, a class suit for damages has been filed by Calancan Bay victims through the group Upholding Life and Nature (ULAN) at the Regional Trial Court (RTC) Branch 94 in Boac⁵.

Victims in Calancan Bay were exposed to toxic chemicals from various sources. Fisherfolk were constantly in direct contact with contaminated seawater.

They also inhale them from seabreeze. Sandy particles are daily felt on the floors and tables. Another source is the ingestion of contaminated seafood, vegetables and other food products from polluted seas and soils since toxins accumulate through the food chain. Present chemical analyses of the tailings, pipes and waters in the area now reveal high toxicity and elevated levels of copper, lead, cadmium, selenium, mercury, silver, cobalt, and arsenic. These heavy metals are harmful to humans and marine creatures.



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- ³ Emelina G. Regis. Gold Mining Activities as Cause of Poverty of Local Communities in Gold Mining Areas. Gibon Ateneo de Naga University Journal. 1-2004.
- ⁴ PRRM Briefing Kit.
- ⁵ Calancan Bay Fisherfolks and several other plaintiffs vs Placer Dome, Inc. and Marcopper Mining Corporation, filed at Regional Trial Court Branch 94 in Boac, Marinduque.