

**The 1996 Marcopper Mining Disaster in Marinduque:
Five Decades of Social Injustice and Neglect**

Jimbo M. Fatalla

University of the Philippines Baguio

Author note

This research was submitted as a
final paper requirement in Anthropology 198
course under Jennifer C. Josef, Ph.D.

The 1996 Marcopper Mining Disaster in Marinduque: Five Decades of Social Injustice and Neglect

Marinduque, popularly known as the “heart of the Philippines” because of its shape and geographical location, lies between the Tayabas bay and the Sibuyan Sea in Southern Luzon. The province is famous for the Moriones Festival held during Holy Week celebration where people, usually men, wear colorful masks and dress like a centurion commemorating the life and persecution of Saint Longinus. More than the religiosity and hospitality of its people—through the traditional welcome song-dance called *putong*—it is the rich natural environment of the island that is really captivating.

The provincial waters of Marinduque include portion of the Verde Island Passage which has been declared by conservation groups as the “*Center of The Center of Marine Shorefish Biodiversity In The World*” with the most number of marine species and habitat discovered in the area unlike any other (Carpenter & Springer, 2005). It is placed 76th smallest out of 81 provinces in the Philippines with a total land area of only 367.79 square miles (Philippine Standard Geographic Code, 2013). As of the 2015 census, the island has approximately more than 234,000 inhabitants comprising the six municipalities of Buenavista, Gasan, Mogpog, Torrijos, Santa Cruz, and Boac – the provincial capital (Philippine Statistics Authority, 2016).

Mining is one of the most environmentally damaging industries in terms of ecological, sociocultural, and economic impact (Environmental Law Alliance Worldwide, 2010). The small island of Marinduque had no known history of mining engagement until the Marcopper Mining Corporation, jointly owned by Placer Development Limited and then Philippine President Ferdinand Marcos, conducted an operation in the province. The tragedy struck the island when one of the Marcopper dams collapsed and flooded the nearby villages with toxic mine tailings. It has caused the death of thousands of marine lives affecting the community residents who today continue to endure its devastating effects. For the longest time since the Marcopper disaster, they have not received any proper compensation from the mine companies nor was a legitimate rehabilitation program of the polluted river systems undertaken.

This paper aims (1) to look back at the 1996 Marcopper mining disaster in Marinduque and be able to point out the negligence of mine companies to take obligations for the damage they have

done. This include the incompetence of the provincial government before, during and after the disaster, its inaction to secure the rights and welfare of the people they promised to protect. In addition, (2) revisit the affected communities and local residents still suffering from its aftermath given that the mine tailings continue to pose threat to the nearby communities whilst the continuous degradation of land and aquatic resources. (3) Also, to show that justice has not been served to the victims of the disaster after more than two decades now.

Through the lens of engaged and activist anthropology, the “seemed-to-be-forgotten” issue of Marcopper Mining Disaster in 1996 will be presented through the *narratives* of concerned mining companies and *counter-narratives* of the affected local members. What did the government and mine companies say about the issue as compared to the stories and actual experiences of affected community members?

This paper stands firmly that the Placer Dome (now a franchise of Barrick Gold Corporation) still be held liable for the disaster this mining company has caused in Marinduque. To provide the demanded payment of compensation for the affected communities that was never given in the first place. For the Barrick Gold to take the utmost obligation to continuously rehabilitate the still contaminated river and marine ecosystems in the affected areas. Most importantly, it calls upon the Department of Environment and Natural Resources (DENR) Marinduque, both the provincial and national government, to consolidate action raising the total ban of any form of mining activity in the province.

NARRATIVES: The Marcopper Mining Corporation

Year 1956, when the Placer Development Limited started the exploration of Marinduque Island in order to find out its potential for mining. From 1967 to 1969, the Philippine dictator Ferdinand Marcos co-owned with Canada’s Placer Development Ltd. to create the Marcopper Mining Corporation that would dig into the gold, copper, and silver reserves of the island. Marcopper started the construction of Mt Tapian open pit mining in 1967 and by 1969, it began its first operation (McDonald & Southall, 2005). During the initial years, Mt Tapian mine dumped its waste inland but this changed in 1975 when Marcopper was given a “blanket permit” to dump its mine tailings in the nearby Calancan Bay (Hamilton-Paterson, 1997). However, the said permit

required that the waste disposal be done through a submerged marine dumping system to protect marine life and aquatic resources, but Marcopper clearly violated this “best practice” standard when mine tailings of Mt Tapian were directly dumped into the surface of Calancan Bay (Coumans, 2002).

For 16 years, an approximate total of 200 million tons of toxic chemicals was pumped into the surface of the bay which contaminated the primary source of food and livelihood of more than 20,000 residents living in the coastal area (McDonald & Southall, 2005). During this period, the Marcopper managers denied that the contamination was caused by the mine tailings (Philippines Solidarity Network of Aotearoa, 1998).

An Oxfam International investigation was conducted in 2005 to contradict the earlier claim of Marcopper. It was found out that other than loss of livelihood due to the death of marine resources, the health of the villagers was also severely affected. Residents complained about heavy metal poisoning which was suspected to be the cause of death of three children, stomach complaints, and many other cases of chemical intoxication in the bay area. The villagers maintained that they did not consent to the dumping, worst is that they have not received any compensation for their losses (McDonald & Southall, 2005).

In 1981, the affected residents protested against Marcopper Corporation to which the government responded and immediately stopped the dumping into the Calancan Bay. However, the Philippine dictator Marcos who was a shareholder of mining in the province (as per the direct request of Marcopper Mining Corp.) ordered the resumption of dumping activity. Marcos co-owned with the Marcopper mine since the time it first operated in 1967 until he was ousted in position via the 1986 EDSA People Power Revolution. The following year, ownership of Marcopper Mining Corporation was transferred to the Philippine government with the newly established *Placer Dome* (McDonald & Southall, 2005).

Mine waste dumping from Mt. Tapian to the Calancan bay area continued during the administration of President Corazon Aquino (McDonald & Southall, 2005) and an underground tunnel leading to the Boac River was constructed to drain rainwater from the pit (Gregory, 2000.). In 1991, the Tapian reserves depleted and Marcopper operation had since then shifted into the new San Antonio pit located just three kilometers away. The tunnel at the bottom of Mt Tapian was sealed and the pit was used instead as a container pond for the mine tailings of San Antonio. This

way of containment system was unconventional. On the one hand, Marcopper Mining Mining Corp. did not undergo a comprehensive Environmental Impact Assessment for using the previously mined pit as a waste storage. Also, the plugging of the tunnel was not extremely monitored nor endorsed by any international consultant (Coumans, 2002). Nevertheless, the Department of Environment and Natural Resources (DENR) Marinduque issued an Environmental Compliance Certificate (ECC) to Marcopper Mining Corp. which allowed its operations to continue (Tauli-Corpuz, n.d. in Gregory, 2000). This would later lead to one of the worst mining disasters in the country.

The Maguila-guila Dam Collapse in 1993

In the same year, Marcopper Mining Corporation now under the ownership of Placer Dome with the Philippine government as stockholder, started the damming of Maguila-guila headwater — a tributary of the Mogpog River. It was made of earthen dam which served to hold the contaminated silt coming from San Antonio because of fear that the Mt Tapian pit would collapse if it could not contain too much mine tailings (Mcdonald & Southall, 2005).

As early as 1990, the people of Mogpog protested but the dam construction pushed through. December 06, 1993 when the Maguila-guila dam collapsed and flooded the nearby communities with toxic residues of heavy metals and silt. More than 70 families living beside the Mogpog River were buried in mud. The flood wiped out their houses, destroyed the crops, killed their livestock, and contaminated the agricultural soil. Two children were instantly killed by flashfloods. The Marcopper Mining Corp. denied any responsibility on the incident. According to the resident manager of Placer Dome, Steve Reid, the collapse of Maguila-guila dam was due to the heavy rainfall brought by the typhoon. The residents of Mogpog received not a single centavo as compensation (Coumans, 2002). Local community members also reported how Marcopper officials claimed that the typhoon was “an act of God” or *force majeure* in legal term (Coumans, 1999; Mcdonald & Southall, 2005, p. 23). Since the 1993 collapse of Maguila-guila siltation dam, Mogpog river was declared “biologically dead” by the DENR (Querubin, 2009).

Three years later, the tunnel at the bottom of Mt Tapian containing all the mine tailings of San Antonio pit burst and flowed directly into the Makulapnit waterways and Boac River system where it was connected.

The ‘Marcopper Mining Disaster’ in 1996

On March 24, 1996, two to four million cubic meters of mine tailings flooded the town of Boac severely pouring the 27-kilometer-long Boac River with tons of heavy metals and acid (Mcdonald & Southall, 2005). Marine and aquatic life in the river were immediately killed. Several villages were buried in six-foot floodwater and mud. Twenty out of 60 communities in Boac had relocated and potable water source of the residents became undrinkable. Following the disaster, “water samples were found to have 1,300% above the human tolerable level of .5 microgram per 1/1000 liters of water.” Boac river was likewise pronounced dead by the provincial government. Many suffered from respiratory complications and skin diseases (Tauli-Corpuz, n.d. in Gregory, 2000). The damage also reached the coastal area and downstream communities which were literally covered in mine tailings coming from the Boac River (United Nations Environment Programme, 1996, p.70).

President Fidel Ramos officially declared a ‘State of Calamity’ for the affected areas and all Marcopper operations were force stopped. The damage was so immense that United Nations experts considered it as a major “environmental disaster” (Mcdonald & Southall, 2005, p. 29). Antonio La Viña, the DENR undersecretary who issued the ECC allowing Marcopper to use the Mt Tapian pit for the containment system said that their department was not aware about the underground drainage connected to the Boac and Makulapnit river system. The residents were never consulted but they knew about the tunnel since it was constructed. The Mines and Geoscience Bureau who led the monitoring system also made no such report (Tauli-Corpuz, n.d. in Gregory, 2000).

The disaster happened because the tunnel did not undergo risk assessment and was badly sealed (Coumans, 2002). Placer Dome did not acknowledge this and blamed the cause to a minor earthquake that happened a week before the tragedy. They claimed it to be an act ‘nature’ but the government insisted on Marcopper’s negligence (de la Cruz, 2017). However, Placer Dome

promised in a letter of CEO John Wilson, dated April 11, 1996, that the “[t]he residents of Marinduque who have suffered personal inconvenience or damage to their property as a result of the Marcopper event will be quickly and fairly compensated” (McDonald & Southall, 2005, p. 29) They also committed to aid in the rehabilitation effort of the Boac River and affected waterways. A promise that was never fulfilled.

One year after the disaster, Placer Dome fled from the Philippines leaving its subsidiary Placer Dome Technical Services (PDTS) to handle the compensation and clean-up efforts. In 2001, the PDTS left the Philippines and handed Marcopper F Holdings the funds for rehabilitation. From 1997 to 2001 across the Presidencies of Ramos, Estrada, and Arroyo not a single rehabilitation program was undertaken due to the insistent disapproval of the government to the request of Marcopper to use the Submarine Tailings Disposal system as it would cause further damage. The residents were still left in a precarious situation with little or no compensation (McDonald & Southall, 2005)

COUNTER-NARRATIVES: The Marginalized Ones

Many times, that the residents of affected communities protested against Marcopper and many times, they were ignored. From 1975 to 1991, people of Calancan Bay vehemently complained about the dumping of mine tailings to the bay where they depend for food and livelihood, but they were consistently turned down by government and mine officials. They even wrote petitions and letters to the President but none of them worked because “Marcos was a stockholder of Marcopper”, according to Vilma Piguerra — a schoolteacher and a resident of Botilao, Calancan Bay (McDonald & Southall, 2005, p. 15).

From the interviews conducted by Oxfam investigation in 2005, most residents reported about how fish catch in the area had suddenly went down following the dumping activity. Francisca Portento recalled how her father who was a very good fisherman, was able to send them to school with the little income they earn through fishing. But since Marcopper operated in 1975, they observed how the catch declined every single day such that fishermen had to go far into the open sea for them to survive. As a result, they lost their livelihood. Children were also hospitalized for lead and mercury intoxication. Three of the residents died from heavy metal poisoning. One of

them was an eight-year-old Roden Reynoso who was diagnosed by his doctor, Philip Cruz MD, with severe mental problems (McDonald & Southall, 2005, p.18). Many have experienced stomach ache, nausea, and vomiting as they believed that the fish they have been eating all along were contaminated with heavy metal-enriched mine tailings (McDonald & Southall, 2005, p.16).

Wilson Manuba, a fisherman of Calancan lost his lower limbs because of an infection which, according to his doctor, was due to arsenic poisoning. His father also suffered similar case of infection (McDonald & Southall, 2005, p. 19). The only assistance they received from Marcopper was during the time when the company helped in the detoxification of children in Calancan Bay. Residents complained that they have not been compensated for the loss of livelihood nor supported for their medical check-ups and health testing. Despite these obvious effects to the environment, health, and livelihood of the local community, Marcopper denied that these were consequences of mine waste. Further studies and scientific researches conducted in the area supported all the residents' claims (McDonald & Southall, 2005).

Prior to the collapse of Maguila-guila dam in 1993, people have protested several times against its construction fearing that it would cause extreme flooding and pollution of Mogpog river. In 1990, 130 residents living in low lying areas situated below the Maguila-guila headwater petitioned the proposed plan of Marcopper to create an earthen dam that would hold silted mine tailings from San Antonio pit. The petition cited potential dangers the dam could cause to the villagers of Bocboc and nearby communities had it be constructed (Coumans, 1999).

The Marinduque Council for Environmental Concerns (MACEC) also reached out to President Corazon Aquino through Senator Koko Pimentel to stop the construction. Four hundred and ninety-nine (499) signed the petition including barangay captains of the villages along Mogpog river. Unfortunately, despite all their protests and numerous petitions the dam was successfully constructed in 1991 but without a spillway in case of heavy rainfall. The following year, residents started to notice flow and leaching of contaminated silt from the Maguila-guila dam. After it collapsed in 1993 and flooded the entire town of Mogpog, agricultural lands were left buried in contaminated mud and acidic silt, properties were destroyed, and two casualties were recorded (Coumans, 1999).

Placer Dome management blamed heavy rainfall brought by typhoon Monang for the collapse of the siltation dam. Marcopper denied any responsibility or lack of foresight. This

incident also led to the death of Mogpog river. Years after the tragedy, villagers reported frequent fishkills in the river as they believed that the mine wastes from Maguila-gula have been continuously leaking. A resident in the area interviewed by Coumans (1999) complained:

The fish, shrimps and crabs we used to rely on for our food are scarce now in the river, and sometimes disappear altogether. Some mornings we wake up and the fish are floating dead in the river. We are afraid to let our animals drink (from the river) because pigs have died after drinking (its) water.

In 1995, one year before the Boac River disaster, Mogpog villagers once again petitioned for the dam to be completely removed as it continues to pose threat to the communities. Placer Dome's Resident Manager, Reid decided to conduct necessary "repairs" but was never finished after the cease operation following the collapse of Mt Tapian drainage tunnel in 1996 containing 23 million tons of mine tailings (Coumans, 1999).

After the Boac river spill that attracted global attention and scrutiny from various environmental groups including the United Nations, Marcopper Mining Corporation and Placer Dome committed to provide the affected residents with "quick" and "fair" compensation as well as enough funds for the clean-up rehabilitation of the river. This time, Marcopper somehow acknowledged the responsibility of addressing the post-disaster effects. However, they were still in denial that the spill was because of the company's failure to meet safety protocol and measures as per using the Mt Tapian pit to impound San Antonio mine tailings, including the drainage tunnel construction (Coumans, 2002b; de la Cruz, 2017).

Placer Dome claimed to have spent a total of \$USD71-million for the Boac river clean-up (Gregory, 2000) and guaranteed Php40 million for the compensation (McDonald & Southall, 2005). Marcopper also reported in 1998 that the spill's impact was already resolved and that the Boac River was back to life. In contrast, later examination of the Makulapnit-Boac river system revealed still high toxicity and PH levels in the area. Dr. Sharon Taylor, a marine biologist reexamined the sea grass condition in the coral coasts and found out that they did not survive the spill. They are no longer growing because mine tailings residues are still present in the sea. This went with similar findings of United States Geological Survey (USGS) that concluded with the ongoing presence of mine tailings in the Boac River (McDonald & Southall, 2005, p. 30).

After the spill, residents demanded payment of compensation for loss of properties and life. It was distributed by the Environmental Guarantee Fund (EGF). The DENR reported in August 2004 that more than 6,000 claimants were paid for compensation from 1996 to 1998. Some of them have waited six years to have the money while around 3,000 claimants have not yet received anything from the funds. After Placer Dome and its subsidiary Placer Dome Technical Services (PDTS) for the rehabilitation program, divested from the Philippines amid the post-disaster effects, they claimed to have handed down Php40 million total compensation to the EGF. However, Marcopper required the claimants to quit all their legal claims first before they could receive the money. This would mean that no other and succeeding claims can be made from the responsible mine companies after being compensated (McDonald & Southall, 2005, p. 33)

The \$USD71-million claim of total expenditure for the rehabilitation however was disputed by the Boac Mayor Roberto Madla, who claimed that more or less only \$21 million was spent in total for rehabilitation. Most of which went to repaying Placer Dome's existing loans. On the other hand, out of Php40 million compensation the mine company has given to the EGF, majority share was spent to settle Placer Dome's guarantee loans "so that company could leave the Philippines and avoid legal action," according to the then Congressman Hon. Edmundo Reyes (McDonald & Southall, 2005, p. 34).

In other words, the rehabilitation program of Boac was not completed nor successful, and the disaster victims received little or no compensation from Placer Dome and Marcopper Mining Corporation. This is not to mention the people of Mogpog and Calancan who have long been inhaling and ingesting mine tailings yet were not able to hear a single apology or acknowledgement of what the companies have done to them, what more of a payment for compensation.

Revisiting the Affected Communities

Five decades have passed since Marcopper Mining Corporation operated in Marinduque. Thirty years of large-scale mining and two decades of ignoring to own up to their mistakes or "criminal negligence" during the 1996 mining disaster, the affected community members still suffer from its aftermath. From the previously pristine water of Calancan Bay, to the mountainous headwater of Mogpog, down to the historic Boac River, the ecological damage Marcopper has

caused is beyond irreparable. People who used to catch fish, shrimps, and crabs in the rivers no longer see anything that has life in these bodies of water.

In 2008, Karol Ilagan of the *Philippine Center for Investigative Journalism* revisited three Marcopper towns in Marinduque to find out the residents living near the abandoned mining sites, suffering from chronic diseases. Dr. Honesto Marquez, the provincial health officer pointed out extreme number of diabetes cases, kidney and renal problems in the municipalities of Boac, Mogpog, and Santa Cruz. Three children already died of illnesses believed to be associated with heavy metal poisoning. The affected barangays during the Boac and Mogpog river spills and Calancan bay dumping experienced high prevalence of acute and upper respiratory tract infections with a rate of 6,813.54 per 100,000 population. These illnesses are symptoms of heavy metal intoxication including lead, cadmium, arsenic, and zinc which the Marcopper mines left years ago (Ilagan, 2008). Former DENR secretary Gina Lopez in her inspection of the affected communities counted 78 total cases of brain damaged children linked to the Marcopper mining (Bonquin, 2017).

Earlier in 2002, Maguila-guila dam and Mt Tapian were declared to be in a state of “disrepair and may collapse” (McDonald & Southall, 2005, p.10). The company abandoned five of the Marcopper dams following the 1996 disaster. Recently in 2017, the Mines and Geosciences Bureau (MGB) discovered that one of the Marcopper dams’ diversion channel had cracks and continuously leaking with water (Philippine Daily Inquirer, 2017; Carag, 2017). Residents echoed the same worry that the dams might collapse with just heavy rainfall or strong typhoons, given the questionable integrity of Maguila-guila and Mt tapian (Mallari, 2014). They also appealed to the Barrick Gold Corporation for the complete removal of the dams or at least cover the cracks to ensure safety of nearby villages. However, the company would not answer anything not unless they would allow Marcopper’s parent company to operate again (Omaga-Diaz, 2017).

The Mines and Geosciences Bureau (MGB, 2017) released another official report indicating proofs that the abandoned Maguila-guila and Makulapnit dams of Marcopper have been continuously leaching heavy metals to the Mogpog and Boac rivers. According to the Environmental Management Bureau of MIMAROPA, these decades-old dams are leaking toxic heavy metals as evident from high concentration of lead, cadmium, and copper still present in the two rivers alongside connected waterways. Five decades since Marcopper dumped mine tailings

into the Calancan bay, residents still cannot eat anything from the sea because of high heavy metal presence in the water.

Failed Lawsuits

Early in 2001, the residents of Mogpog and Calancan Bay Fisherfolk Federation (CBFF) filed a Php41-M lawsuit and a P49.2B class suite respectively against Marcopper Mining Corporation and Placer Dome — cases which remained unresolved up until today (Legal Rights and Natural Resources Center, 2010; Santos, 2012). In 2005, the provincial government of Marinduque filed an international case in Nevada where Barrick Gold Corp. is now based. It was a 100-million-dollar lawsuit against the company for all their damages to life and property during the Marcopper mining disaster. After ten years, the case has been dismissed due to jurisdictional question as to where the case must be heard (The Associated Press, 2015). Barrick Gold Corporation who now owned Placer Dome (formerly Marcopper Mining Corp.) has been constantly fighting the residents of Marinduque in court (Coumans, 2013).

Social Injustice and Neglect of Human Rights

Fifty long years since a foreign company with the aid of a dictator squeezed the island's resources up to the last ore deposit, then suddenly left the people to suffer in misery from the disasters they made. There must be no question of who should be held accountable, clearly it was Canada's Placer Dome (formerly Marcopper Mining Corp.), now hiding in the vest of Barrick Gold.

The company has assumed different 'identities' through years of running away from condemnation, but nothing will change the fact that they have ruined the once peaceful island. They continue to do so by not owning up to their mistakes. They have deprived the people of basic human rights, stripped off their identities and livelihood while children were left in handicapped conditions for the rest of their lives. All of which are social injustices stemming from politico-economic forces, government policies, and bureaucratic failure.

For one, the province of Marinduque has been run by political dynasties long before Marcopper existed. An 87-year-old incumbent governor of Marinduque was the same congresswoman of the province during the Marcos era and through years of Marcopper operation. Meanwhile, the seating governor that time who allowed the Marcopper Mining Corp. to operate served for twenty-one years straight in line with the Martial Law. Then followed by the late husband of the incumbent governor until she started taking gubernatorial position two years after the 1996 mining disaster. Political clans have been assuming government positions in the province, sometimes in an alternating or straight 20-years fashion.

The ruling of political clans in Marinduque left little room for change in policies and political agenda, partnered with the development goals of then President Marcos. All but at the expense of people's suffering. As I have pointed out earlier, Calancan residents protested several times against mine waste dumping in the bay area yet this practice was allowed to continue for sixteen years. Marcopper clearly violated the permit for mine tailing disposal and DENR did nothing to stop them. The DENR and provincial government were so afraid of the dictator who was a shareholder of the mining that the people endured the consequence until now.

The construction of Maguila-guila dam faced similar protests, flooded the Malacañang with petition to stop Marcopper but what did the Aquino administration do to help the affected locals of Mogpog? After all, they were right about the dam collapse and the pollution that it would cause to the downstream communities. Prior to the 1996 Boac river spill, why was an ECC issued to the Mt Tapian pit containment system plan despite the lack of environmental impact and risk assessment or even a consultation with mine experts? It was so impossible that the DENR - Mines and Geosciences Bureau did not know about the drainage tunnel while the residents knew that there was one right underneath the Mt Tapian.

Other than the countless human rights violations during the dark years of Martial law, it was the national economic policies of Ferdinand Marcos focused on foreign exchange and infrastructure development, that left many indigenous local populations in distress. As the people of Cordillera struggle against the intrusive Chico river dam project in the 1970s, the residents of Marinduque were on the same plight against Marcopper. Unfortunately for the latter, they were not able to defend their land as they helplessly succumbed to the 'overpowering' but 'disempowering' neoliberal capitalistic framework of development.

It is true that for over thirty years of Marcopper operations in Marinduque, it had generated employment opportunities for at least 1,000 residents and provided electrification for the entire province (McDonald & Southall, 2005). However, the ecological damage it has caused in return outweighs everything that follows. In fact, the three decades of operation barely, if not, did not contribute to the province's economic growth as Marinduque remains one of the poorest provinces in the country. In 2000, it is ranked 27 among the forty poorest provinces in the Philippines (National Statistical Coordination Board, 2005, p.32).

The 1996 Boac river spill is tagged as the 'worst mining disaster in the Philippines' but as I have shown, Marcopper mining was a disaster since the very beginning of its operations. Therefore, it must be remembered as Marcopper mining "disasters." If justice delayed is justice denied, then it is reasonable to say that the people of Marinduque have long been denied of something so difficult to obtain in this country. Fifty years hence, the case of Marcopper in Marinduque is languishing but the victims still cry for justice. Barrick Gold Corporation, the "largest gold mining company in the world" as it wanted to be called, is resistant to own up the mistakes of Marcopper. By depriving the people of compensations and rehabilitation of affected river systems, they have committed an environmental and social injustice, and long since neglected the residents' human rights.

Today, despite efforts of the residents in all six municipalities to campaign for the total ban of mining in Marinduque, the island province is still not a mining-free zone. There is always a possibility of another Marcopper given that the political arena has not changed in the province as we continue to live in a neoliberal society and a looming era of Martial law.

Mining, no matter how responsible, cannot be made in small islands like Marinduque. It would only wreak havoc to the environment long before it could recuperate. In the same manner that it was not predictive of economic growth for it only feeds the corporate interest at the expense of people's suffering. This type of industry was never appropriate nor sustainable for the heart that we have once left broken and bleeding.

Reference List

- Bonquin, C. (April 24, 2017). DENR to file case vs. Marcopper. *ABS-CBN News*. Retrieved from <https://news.abs-cbn.com/news/04/24/17/denr-to-file-case-vs-marcopper>
- Carag, K. (March 27, 2017). Residents fear of mam collapse at Marinduque. *DZRH News*. Retrieved from <http://dzhnews.com.ph/residents-fear-dam-collapse-marinduque/>
- Coumans, C. (1999). Marinduque's other toxic river. *Philippine Center for Investigative Journalism*. Retrieved from <http://pcij.org/stories/marinduques-other-toxic-river/>
- Coumans, C. (2002). Case study on Marcopper mining and the Marinduque disaster. *Mines and Communities*. Retrieved from <http://www.minesandcommunities.org/article.php?a=1445>
- Coumans, C. (2002b). *The successful struggle against submarine tailings disposal in Marinduque, Philippines*. Retrieved from https://miningwatch.ca/sites/default/files/marinduque_std_struggle_0.pdf
- Coumans, C. (October 16, 2013). Marinduque is 'pushed to the wall'. *Inquirer*. Retrieved from <https://opinion.inquirer.net/63421/marinduque-is-pushed-to-the-wall>
- Carpenter, K. & Springer, V.G. (2005). The center of the center of marine shore fish biodiversity: The Philippine Islands. *Environmental Biology of Fishes*, 72(4), 467-480. Retrieved from https://www.researchgate.net/publication/227112122_The_center_of_the_center_of_marine_shore_fish_biodiversity_The_Philippine_Islands/citations
- de la Cruz, G. (March 24, 2017). Look Back: The 1996 Marcopper mining disaster. *Rappler*. Retrieved from <https://www.rappler.com/move-ph/issues/disasters/165051-look-back-1996-marcopper-mining-disaster>
- Environmental Law Alliance Worldwide. (2010). Overview of mining and its impacts. Chapter 1 In *Guidebook for Evaluating Mining Project EIAs*. Retrieved from <https://www.elaw.org/content/guidebook-evaluating-mining-project-eias-0>
- Gregory, C. (2000). Marcopper in the Philippines. *Environmental Justice Case Studies*. Retrieved from <http://www.umich.edu/~snre492/Jones/marcopper.htm>
- Hamilton-Paterson, J. (January 1997). A watery grave. *Outside Magazine*. Retrieved from <http://www.outsidemag.com/magazine/0197/9701field.html>
- Ilagan, K. M. (2008). Chronic illnesses on the rise in Marcopper towns. *Philippine Center for Investigative Journalism*. Retrieved from <http://pcij.org/stories/chronic-illnesses-on-the-rise-in-marcopper-towns/>
- Legal Rights and Natural Resources Center - Luzon. (2010). After 16 years Marinduque folk still seeking justice for Marcopper tragedy. In *Filipinos still seeking justice for 1993 Marcopper tragedy*. Mines and Communities. Retrieved from <http://www.minesandcommunities.org/article.php?a=10113>

THE 1996 MARCOPPER MINING DISASTER

- Mallari, D.T., Jr. (December 07, 2014). Strong rains raise fear of Marinduque mine dams collapse. *Inquirer*. Retrieved from <https://newsinfo.inquirer.net/655523/strong-rains-raise-fear-of-marinduque-mine-dams-collapse>
- Mcdonald, I., & Southall, K. (2005). *Mining ombudsman case report: Marinduque island*. Oxfam International, Australia. Retrieved from <http://www.oxfam.org.au/resources/filestore/originals/OAus-MiningOmbudsmanMarinduque-0305.pdf>
- Mines and Geosciences Bureau (March 20, 2017). *MGB-MIMAROPA presents Marcopper issues and updates at the RIACEH Meeting*. Retrieved from <http://region4b.mgb.gov.ph/14-articles/137-mgb-mimaropa-presents-marcopper-issues-and-updates-at-the-riaceh-meeting>
- National Statistical Coordination Board. (2005). *Estimation of local poverty in the Philippines*. Retrieved from https://psa.gov.ph/sites/default/files/NSCB_LocalPovertyPhilippines_0.pdf
- Omaga-Diaz, H. (February 23, 2017). Mining dam crack threatens Marinduque residents. *ABS-CBN News, ANC*. Retrieved from <https://www.youtube.com/watch?v=nsA38aULApA>
- Philippine Daily Inquirer. *Leaks found in abandoned Marcopper dam*. Retrieved from <https://newsinfo.inquirer.net/865145/leaks-found-in-abandoned-marcopper-dam>
- Philippine Standard Geographic Code (2013). *List of Provinces. PSGC Interactive*. Makati City, Philippines: National Statistical Coordination Board. Retrieved from <http://www.nscb.gov.ph/activestats/psgc/listprov.asp>
- Philippine Statistics Authority. (2016). *Population of Region IV-B - MIMAROPA (Based on the 2015 census of population)*. Retrieved from <https://psa.gov.ph/content/population-region-iv-b-mimaropa-based-2015-census-population>
- Philippines Solidarity Network of Aotearoa (1998). Marcopper disaster: Two years later. *KASAMA*, 12(2). Retrieved from <http://cpcabrisbane.org/Kasama/1998/V12n2/Marcopper.htm>
- Querubin (April 02, 2009). Marinduqueños act on toxic river woes. *Inquirer*, Southern Luzon. Retrieved from the Philippine Indigenous Peoples Links, <http://www.piplinks.org/open-pit+copper+mine+waste.html>
- Santos, L. (November 18, 2012). #WhyMining Conversation: Which is worse, Philex or Marcopper incident? *Rappler*. Retrieved from <https://www.rappler.com/business/special-report/whymining/whymining-latest-stories/16197-whymining-conversation-philex-vs-marcopper>
- The Associated Press (June 12, 2015). Nevada court blocks Marinduque's Barrick Gold suit. *BusinessMirror*. Retrieved from <https://businessmirror.com.ph/nevada-court-blocks-marinduques-barrick-gold-suit/>
- United Nations Environment Programme (UNEP, 1996). *Final Report of the United Nations Expert Assessment Mission to Marinduque Island, Philippines*. p. 70.

Appendices



Figure 1. The residents of Boac looking at the 2-3 million tons of mine tailings pouring into the river after the Mt Tapian drainage tunnel collapse in 1996. Photo from *AFP*. Retrieved from *Rappler* (2017): <https://www.rappler.com/move-ph/issues/disasters/165051-look-back-1996-marcopper-mining-disaster>



Figure 2. Marcopper Mining Corp. Mt Tapian open pit in Marinduque. Photo from *Mining Watch Canada*. Retrieved from <https://miningwatch.ca/blog/philippines-marinduque-pushed-wall-barrick-gold>

THE 1996 MARCOPPER MINING DISASTER



Figure 3. The Calancan Bay in Santa Cruz, Marinduque where Marcopper dumped its mine tailings through a seven-kilometer causeway pump, amounting to a total of 200 million tons of heavy metal waste for sixteen years. Photo from *Mining Watch Canada*. Retrieved from <https://miningwatch.ca/blog/philippines-marinduque-pushed-wall-barrick-gold>

Figure 4. The Mogpog River at present. It was declared biologically dead after the Maguila-guila dam tragedy in 1993. Photo from *Environmental Justice Atlas*. Retrieved from https://file.ejatl.org/img/Conflict/marcopper-placer-dome-mining-disaster-marinduque-island-philippines/ATM_Mogpog.jpg



Figure 5. Heavy metals like copper sulfate (blue green) coming from an old mine pi of Marcopper continue to pollute the Boac River. Photo from *Mining Watch Canada*. Retrieved from <https://miningwatch.ca/blog/philippines-marinduque-pushed-wall-barrick-gold>

THE 1996 MARCOPPER MINING DISASTER



Figure 6. Tomas Gutierrez, 82 years old of Malusak, Mogpog showing his scarred legs caused by the 1993 Maguila-guila dam collapse which flooded the villages with acidic silt and toxic mine chemicals. Photo by *David Sproule*. Oxfam International, Australia (2005). Mining ombudsman case report: Marinduque island.



Figure 7. Pedro and Wilson Manuba (father and son) are fishermen of Calancan bay who were diagnosed with arsenic infection. Wilson already lost his right feet while his father, Pedro continues to suffer from the infection due to the contamination caused by Marcopper surface disposal. Photo by *Ingrid Macdonald*. Oxfam International, Australia (2005). Mining ombudsman case report: Marinduque island.