Coastal communities under attack by Newmont

The Peoples of Sulawesi and Sumbawa are being victimized by Newmont’s Submarine Tailings Disposal operations

Newmont Minahasa Raya gold mine - North Sulawesi

Newmont Minahasa Raya (NMR) is owned 80% by US-based Newmont Mining Corporation, the world’s largest mining company, and 20% by Tajung Serapung Indonesia. In 1986, NMR signed a contract to mine for gold with the Government of Indonesia. The NMR mine covers some 527,448 hectares in Minahasa and Bolaang Mongondow Districts in North Sulawesi, Indonesia.

No consultation or agreement was made with the local Ratatotok community people in the writing of the contract, and it did not include a proper plan for environmental management by the company. Before NMR, Ratatotok villagers farmed on fertile hills and Buyat Bay villagers fished from sparkling blue waters. But since NMR began mining, the people’s subsistence-based lifestyle has been destroyed.

A road built by NMR caused severe flooding that destroyed a mangrove forest and damaged resident’s homes. In March 1996, NMR started production and the people suffered the impacts. They have never been included in decision making on mining activities, they have been victims of land raiding and have been forced to sign letters to relinquish their lands and to accept mediocre land compensation.

Submarine Tailings Disposal at Newmont Minahasa Raya

In 1996, the Buyat Bay community was the first to suffer the consequences of Submarine Tailings Disposal (STD) at Minahasa Raya. NMR dumps 2,000 tons of tailings each day into Buyat Bay. In the past five years, Newmont has dumped some 2.8 million tons of tailings into Buyat Bay.

NMR uses cyanide to leach out gold ore from crushed rock. NMR then reportedly removes cyanide, arsenic and mercury by a neutralization process and evacuates the tailings under vacuum pressure to minimize oxygen bubbles. The tailings are disposed of through a pipe that runs from the Mesel pit to the shore and then from the shore 8,000 meters into Buyat Bay at a depth of 82 meters below the sea level.

This depth is just two meters below the acceptable minimum level for STD discharge.

The local people have been left in the dark about the details of the environmental impact assessment. The Environmental Impact Monitoring Agency (BAPEDAL) issued a statement that NMR’s tailing waste disposal is illegal.

A reputable toxicology expert Professor Rizal Max Rompas from Sam Ratulangi University (UNSRAT), North Sulawesi conducted a study in 1999 that concluded: “The mining activities of PT. Newmont Minahasa Raya in Minahasa District and Bolaan Mongondow need to be reviewed. There are detected high amounts of several toxic compounds in Buyat Bay. The amount of toxic compounds in seawater has gone over the tolerable threshold allowed by the government law, PP No 20/1990. Moreover, the research has found some indication of contamination of plankton and pelagic fish living in that area.”

The report also stated that, “the high toxic compounds in Buyat Bay are those with bio-accumulative and carcinogenic natures.” The report found that there were several heavy metal compounds including mercury, lead, arsenic, copper,
and cadmium in Buyat Bay. Rompas recommended an evaluation and redesign of the tailing disposal system, but his recommendations were never implemented.

Research by the Center for the Study of Natural Resources and the Environment at UNSRAT found that water from the area of the mouth of the pipe contained mercury concentrations of 34 parts per billion (ppb). This concentration exceeds the threshold limit for mercury set at 2 ppb, as specified by Government Regulation No. 20, 1990, concerning Control of Water Pollution.

**Impacts of Newmont Minahasa Raya**

NMR’s Environmental Impact Assessment (EIA) claims the presence of a **thermocline** in Buyat Bay. Based on this, the thermocline would prevent tailings from NMR from being dispersed throughout the ocean. (See: *Science and Submarine Tailings Disposal*.) However, Professor Rompas commented in Tabloid Kabar, No. 16 on July 26, 1999, a weekly news publication from Manado, that there is no permanent thermocline in Buyat Bay. Rompas’ research shows no extreme temperature differences between the sea surface and below. NMR’s EIA says that tailings were to be dumped at 82 meters below sea level. NMR recently recorded dumping tailings between 70-80 meters below sea level.7

**Dead Fish and Loss of Livelihoods**

Significant amounts of dead fish have been found in Buyat Bay numerous times from 1996 to 1997. The community has physically brought the dead fish to the company, but the company accuses the community of poisoning the fish.

The community has also brought fish to the UNSRAT laboratory to find the cause of the death. However, the Dean of the department refused to diagnose the fish, saying that it was possible it was bought from the market and had cyanide put on it. The Dean said he and his colleague could diagnose the fish only if they themselves went to where the dead fish was found. But when community people invited the Dean to come to their place, he refused. Besides dead fish, the community has smelled foul odors from the seawater on numerous occasions.9

Sea pollution has severely impacted the fishermen around Buyat Bay. The seabed, which is the marine productive area for fish, has been covered by tailings. Thus both fish species and numbers have deteriorated. Fishermen cannot catch fish around the bay, nor in the open sea because they do not have big motorized boats. The fishermen have to travel three to four miles to catch fish whereas before NMR, they only ventured out about a quarter of a mile.

By July 1996, only four months after NMR began mining operations, fish production in Buyat Bay had plummeted by 70% and fishermen’s incomes had dropped by 50%. The community has practiced responsible natural resource management but NMR has destroyed their resources and the people do not have any other source of livelihood. Before NMR, 59 species of fish were found in the Buyat Bay waters. After 1997, only 13 species were found.10

Also, before NMR, they could earn US$51 - 76 per month per family. Since STD began in 1996, average income dropped to US$10 dollars per month per family. Now, fishermen receive less money, yet must row their boats further and further out to sea.11

**Seabed Contour Changes**

Data provided by researchers from the Center for the Study of Natural Resources and the Environment at UNSRAT in 1999, shows the STD from NMR has changed seafloor depth in Buyat Bay. The data was also a product of community mapping done in 2000 by the people of Buyat Bay and Indonesian NGO WALHI. These groups found a deposition of tailings approximately 10 meters high and 500-800 meters in radius at the mouth of the pipe. Thickening mud indicates that the area around the mouth of the pipe is becoming progressively shallower. While the depth of the pipe mouth was 82 meters in 1997 according to NMR’s EIA document, it had decreased to 70 meters by 1999 according to PLS UNSRAT.

A further finding of the study, supported by BAPEDAL’s (Indonesia’s environmental monitoring agency) central office, was that the shallowing process changed the angle of the slope in Buyat Bay from 5 degrees in 1997 to 2.2 degrees in 1999. These facts are proof that the tailings disposal system used by NMR has not fulfilled the requirements as specified in the EIA.

The slope needed to set up an STD system for marine and coastal mining is 10-20 degrees.12 A report by the Independent Research Team (1998) formed by the Provincial Government of North Sulawesi concluded that the NMR’s tailings disposal system in

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*Photo: JATAM*
Buyat Bay was inappropriate. Because of this finding, a team was established on the basis of Governor’s Appointment No. 3, 1999.

One of the recommendations of this team was that waste in the form of these fine particles (more than 90% smaller than 74 microns) should not be disposed of on the sea floor. If NMR were to continue the process, the pipe would have to be extended into the sea. However, before the results of the report were published, NMR succeeded in convincing the Provincial Government to declare its research findings invalid.

Underwater video documentation by WALHI, starting at a depth of 10 meters, discovered that NMR’s tailings had spread, and were deposited throughout nearly all of Buyat Bay. The video shows serious impacts, ranging from damaged sea grass to dying or dead coral reefs. The local fishing grounds have been covered over with mud and sediment from the mouth of the pipe. WALHI’s dive team had planned to document the pipe area to a depth of 82 meters but they were forced to stop underwater filming at a depth of 30 meters because of poor visibility due to particles of waste and strands of thread-like mucus material.

**Broken Pipes and a Health Crisis**

NMR’s tailings pipes have broken and flooded many times at various places, releasing large amounts of heavy metals into different levels of the ocean. Foul smells in the air alert villagers of another pipe rupture.

The company has been forced to delay operations because of damaged tailing pipes. Citizens have protested the broken pipe problems to NMR. The heavy metal compounds that are being dispersed throughout the waters can contaminate the fish in Buyat waters, potentially exposing the community to high levels of mercury.

Professor Rompas has fish samples that show dramatic impacts from pollution but NMR has refuted his findings. In particular, in North Sulawesi, people love to eat bekasang, food made from fish liver and fish stomach. Blood samples taken from a random sample of community members and analyzed on October 26, 2000 showed unacceptable blood levels of arsenic and mercury. Compared to reference ranges established by Specialty Laboratory, Michigan, for mercury less than 5.0 mg/L and arsenic less than 11.0 mg/L, this level of contamination in the system is far beyond tolerable limits.

Nineteen people from the sample (95%) had arsenic levels above the tolerance value and thirteen (65%) had mercury levels above the tolerance value, thus posing a serious threat to their health. Community members are already suffering from visible health problems. WALHI reported that from April to May 1999, nearly 50 fisherpeople suffered skin diseases. Citizens, especially women and children on the Buyat coast, suffer from numerous skin diseases and other debilitating diseases. New diseases are being reported up to this date.

A medical survey done on the community in December 2000 found that the people suffered from debilitating headaches sometimes accompanied with trembling and problems in speech; mental function disorders including stuttering, memory loss, and fainting; sensory disorders including poor eye sight, poor hearing, swollen eyes and other eye diseases; larynx complications and difficulty swallowing; digestion function disorders that include serious stomach conditions; tumors on head, feet and larynx; male urine disorder; fever and chill symptoms; pains in wrist, hands and legs; rashes and sores; temporary incidences of paralysis and quite possibly reproductive health problems as a result of eating contaminated fish.

BAPEDAL, the Indonesian government’s environmental impact control agency has never issued a permit for NMR to dump its tailings into the sea. In June 2000, the environmental minister, Sonny Keraf ordered NMR to conduct an environmental risk assessment and to detoxify the tailings before dumping them into the sea. However, NMR has yet to produce a proper environmental risk assessment and Kerf, in May 2001, rejected NMR’s assessment based on the use of invalid technology.

Keraf, who was the chairman of BAPEDAL, acknowledged that the issuance of permits to NMR to build submarine tailings placement in its mining sites was not based on a thorough study.

However, NMR continues to dump 2,000 tons of tailings into Buyat Bay each day and has brought in supposed experts to promote the use of STD. George W. Poling from Canada-based consultants Rescan Environmental Services Canada, stated that the risk from placing mine waste into the sea is less than the risk of placing the wastes on land. This is an ironic statement since
mine waste disposal into the sea is effectively banned in Canada. (See: Canadian Legislation on Submarine Tailings Disposal.)

Community Concerns and Actions
The community has presented their concerns of tailing dumping into Buyat Bay numerous times to the Indonesian government. These concerns include increased amounts of silt in the sea, declining fish catches, and the disappearance of some fish species. On September 20, 1999, the Legal Aid Foundation in Manado and YSN Tomohon held a meeting with citizens in Buyat to discuss the impacts of STD and their demands against the company.

“You’re all liars. You said that the sea is not polluted, but why are the fishes dead and why is the coast that used to be beautiful now full of mud? Why is it recently we find difficulties to catch fishes? Our children’s skin itches. It is true that you all love to turn the facts upside down,” said Anton, a Buyat Bay citizen, to NMR on November 25, 1999.

On July 2, 1998, 300 people occupied the NMR office for seven hours. They demanded that all of NMR’s labor and environmental obligations as written in the contract of work be fulfilled. They also accused the company of imposing fines on small-scale miners and demanded that NMR pay taxes on other material that had been removed from the mine. Following this, the citizens protested many times in response to fish kills and broken tailing pipes.

Police stations have been built around Ratatotok to secure NMR’s presence in the area. A provincial police force has been stationed outside NMR’s public relations office. In 1997, NMR built a large police station directly in front of the road leading to the mine site. The provincial police force serves as an “unofficial security force” for NMR. NMR has given money to one group of people, causing clashes among people in the community.21

Newmont Minahasa Raya Mine Closure Update
NMR plans to close in the year 2003, leaving six open pit mines over a total area of 26 hectares. NMR has made limited reclamation plans for certain areas, including only one open-pit and not the other five open-pits. This means that NMR is only planning on reclaiming 15.4% of its mining area. NMR also has stated that the Buyat Bay seabed will return to normal after some seven years of having 2,000 tons per day of waste dumped in it. There have been no plans thus far for an alternative economy for the local community surrounding the mine.

By Tracy Glynn for the Mining Advocacy Network - (JATAM)

3 Jakarta Post, September 7, 1999.
7 “Proof of Environmental Damage Resulting from Newmont Minahasa Raya’s Tailings Disposal Activity. North Sulawesi,” Walhi Fact Sheet, Not Dated.
8 Ibid.
14 Ibid.
17 Ibid.
Newmont Nusa Tenggara - Batu Hijau, Sumbawa

Newmont Nusa Tenggara (NNT) is Newmont’s only full-fledged copper mine. NNT is owned 45% by Newmont Mining Corporation, 35% by Sumitomo Corporation from Japan and 20% by Pukuafu Indah from Indonesia.1

NNT began mining copper along with gold and silver on Sumbawa in 1999. NNT was originally granted a mining license for an area that constituted 50% of the West Nusa Tenggara province. After exploration, NNT limited its mining area to 17% of the entire province.

The NNT site, also known as Newmont Batu Hijau, is an open pit mine with operations covering 116,900 hectares. The mine is expected to last for approximately 20 years.2 American, Japanese, and German finance institutions among others have provided billion dollar financing for NNT.3 NNT operates two open pit mines, Air Merah and Tongoloka. The Tongoloka open pit mine already has reached a depth of 3,000 meters.

To lessen operational and production costs, NNT announced it will increase its production of gold by 40% and copper by 20% in April 2001. In 2000, NNT produced approximately 280,000 ounces of gold and 495 million pounds of copper. In 2001, according to NNT president Tom Enos, “production levels will reach 400,000 ounces of gold and 600 million pounds of copper.” The NNT site contains reserves of approximately 10 billion pounds of copper and 11 million ounces of gold.4

Submarine Tailings Disposal

At NNT, only one truckload of minerals is sold for every three truckloads of rock processed. The other two truckloads are waste rock. For every ton of rock processed, NNT is able to obtain 5.25 kilograms of copper, 0.37 grams of gold and lesser amounts of silver.5

After the copper, gold and silver are mined from the Batu Hijau mine, the metals are then separated from the rock at the concentrator where the ore is mixed with seawater and put into a large grinder called a SAG mill. The SAG mill grinds the rock into small stones that flow to another grinder called the Ball Mill. The Ball Mill grinds the stones into fine sand particles called slurry.

The slurry is then pumped into tanks where reagents are added. While NMR uses cyanide in its processing of ore, NNT uses a series of reagents. The reagents allow the slurry to foam and bubble when air is pumped into the tanks so that the finely ground metals attach to the bubbles and float to the top, while the waste rock sinks to the bottom of the tanks.6 NNT claims that the tailings are not dangerous because cyanide is not used in the processing of ore. Waste rock on the bottom of the tanks is transported by a pipe 3.2 kilometers from shore into the Senunu Bay near Sejorong, and dumped out at more than 100 meters below sea level into a deep ocean trench over 3,000 meters deep.

NNT has been dumping as much as 120,000 tons of waste each day into Senunu Bay since December 1999. This rate is sixty times more than what NMR is dumping.7 This amounts to 43.8 million tons per year. In May 2001, NNT held a seminar on “Submarine Tailing Placement (STP)” in Mataram, Lombok. NNT sent in so-called STD experts and consultants from Indonesia and Canada who have a long history of endorsing STD to promote the use of this waste disposal method in Sumbawa.8

Impacts of Submarine Tailings Disposal

West Nusa Tenggara Forum for the Environment (WALHI TB) says that the tailings are polluting the environment. The waste contains heavy metals and chemical elements, such as arsenic, barium, cadmium, copper, lead, selenium, and silver. A total of 1.045 billion tons will have been deposited by the time the operation is over.

Local people were not properly involved in the Environmental Impact Analysis (EIA) that was carried out and they are concerned that they will be poisoned or that they will develop cancer or mental illnesses as a result of contamination from the
heavy metals and chemical elements in the waste. WALHI TB has demanded that the government carry out an environmental audit on NNT, meaning that the government should check the results of NNT’s own EIA.

“It is clear that this system is destroying the environment,” said Yulianto, WALHI TB Advocacy and Development Coordinator.6

Before NNT came to Sumbawa, villagers caught more fish than needed and sold their surplus in the local markets. Since NNT began pumping tailings into the bay, the fish population has declined drastically and is insufficient for local need. Also, Senunu Bay was once a healthy green turtle spawning area, but now the community has a very difficult time finding any turtle eggs around Rantung coast. Some fish species have also disappeared.

The waste disposal site to the south is known for strong currents and the ocean floor has experienced seismic activity in the past. This increases the danger that waste is being dispersed at further distances. The ocean is culturally significant for the community as a place of celebration and gathering to share and pray that the ocean will continue to share its benefits with the community.10

In May 2000, a local NGO reported the collapse of a dam containing waste mud from NNT’s drilling operations. A wave of mud flowed downriver and covered surrounding farmland. Meanwhile, tailings pipes have ruptured several times from October 2000 to January 2001 on land, killing the grass around the vicinity of the spill.

On January 25, 2001, the tailings pipe broke but the company has so far not recognized this. In February 2001, as much as 21 barrels or 4,684 liters of diesel fuel spilled and polluted the ecosystem of the Benete Bay; the fishermen have since been unable to catch any fish.12

WALHI TB has been given information from diving guides that some diving locations in the Lombok and Bali seas have been polluted with NNT tailings. Coastal corals, especially blue corals, have been destroyed or have changed color from blue to brown. This has been evident in some highly frequented tourist areas, namely the Gili Islands and some regions of Bali.13

**Community Concerns and Actions**

The community rejected the acquisition of their land for NNT’s mine, port, processing plant, satellite, township, roads and tourism project. Fertile farmland was confiscated without landowner’s permission or at inadequate compensation rates, leading to a loss of livelihood.

NNT’s heavy water use has caused springs and wells to dry up, leaving communities without an adequate drinking water supply. The community has lost access to rattan, honey, bamboo and other resources that they made a sustenance living from. NNT security workers wearing “911” badges on their shirts prevent the community from accessing the land. Company guards prohibit the community from entering the forests.14

Benete Bay is NNT’s port site and from where NNT’s mineral concentrate is shipped. The heavy sea transportation here has had an impact on marine organisms, causing fish to migrate from there and making it extremely difficult for fishermen to land their boats. In some cases fishermen’s boats have flipped over because of the wake caused by NNT’s propeller-powered boats.15

Women of the community have lost their spouses’ income, putting additional pressures on them to work harder.16 On the Rantung coast along Senuu Bay, young milkfish and other fish—the women’s main source of livelihood—have disappeared. There is nowhere for them to turn for supplemental income since NNT does not hire women. This has forced some women into marriage or, if their husbands do not pass the medical tests to work at the NNT mine, they have been forced to marry again.

NNT has changed the cultural landscape. The town of Maluk has been filled with shops, salons and bars and housing for NNT workers. Prostitution, alcoholism, gambling and crime have rocked the area. The contract wife, marriages between local community women and foreign workers last for as long as the work contract lasts, posing several future problems.17

NNT has practiced discriminatory hiring practices, paid discriminatory wages and broken promises of giving 60% of its employment opportunities to the local community. Residents blockaded a road for three days until NNT promised to start training workers, but again didn’t keep its promise. Foreign NNT employees are able to pay higher prices for goods, and sellers have been refusing to sell their goods to local residents.

On October 10, 1999, the Sumbawa community met with NNT officials but was dissatisfied with the lack of responsiveness and staged a demonstration three days later. The community demanded that NNT improve water supply, monitor its waste and disclose information on mining impacts to the people. Military and police thugs acting on behalf of the company’s elite security force brutally wounded the protestors.

The Kruwak Community Alliance (AMAK) is an alliance of six coastal communities (Tanjug Luar, Batu Nampar, Teruwak, Sukaraja, Pijot and Pemangkongm) who have felt the impacts of NNT’s mining. The communities are united in their position that NNT has seriously disturbed their fishing grounds. NNT has been spreading false information that “Tailings are Safe Wastes” throughout the 21 fisher-communities along East and West Lombok, the center of fisheries in West Nusa Tenggara.18
On June 28, 2001, landowner Jhoni Hartono filed a civil lawsuit against NNT for illegally taking over land that he had recently purchased from a local community member. He had bought 5,780 square meters in August of 1996 and Newmont confiscated 1,275 square meters of it in 1997. The first trial was set to take place on July 9, 2001. However, the case was delayed and never did make it to trial.

New Government Threatens Progress on Banning STD

On May 22, 2001, former Indonesian Minister of Environment Sonny Keraf declared in a Government House of Representative meeting in Jakarta, that his Ministry had yet to issue a permit for tailings disposal at NMR and NNT.

Keraf told the House of Representatives that his ministry was still examining data and information. The local communities in both regions have been protesting the practice of STD. The Environment Minister, who is also the chairman of Environmental Impact Controlling Body, ordered NMR to make an Ecological Risk Assessment of the STD site before he would make a decision to issue a permit for STD.

However, in July 2001, Keraf was replaced as a result of a new Government and cabinet shuffle. During a mining industry event in Jakarta in October 2001, the current Indonesian Minister of Environment, HE Nabiel Makarim stated that his Department was open to accepting more applications for STD. The statement from the Minister is a result of heavy lobbying from the mining industry that seeks to deem this type of destructive practice as "environmentally friendly." STD was rejected by the former Indonesian Environmental Minister, Sonny Keraf, who stated that we would not give anymore STD licenses, because the two mining companies with STD licenses were having enormous problems at their mine sites with the use of this technology.

Community Struggles to Stop STD Continue

On March 28, 2002, communities impacted by NTT held a demonstration. As many as 250 people, including women, youth and children marched to the mine at Tongo Village in Sejorong, demanding access and rights to their natural resources. The day before the demonstration, community members visited the Mining and Energy Department, the Local Government Office and the Sumbawa Local House of Representatives in the capital of the district. The community has been visiting these offices for the past two years with no response yet from NNT. Hamzah, a community organizer at NNT read from a statement of community demands. Their demands were as follows:

• To have their rights on community agricultural land given back to them.
• Compensation for lands taken away without the community’s consent.
• A stop to the disposal of tailings into the ocean.
• A return to the natural functions of the forests, rivers and oceans.
• That Newmont stop intervening on local government decisions and planning.

The communities also called on the district, provincial and central governments to:
• Stop NNT’s operations
• To put into a moratorium in place on Newmont’s operations
• To review NNT’s contract of work
• To nationalize NNT

“If the demands expected by the community are not addressed seriously, we will boycott all company facilities “ stated Hamzah, a coordinator of the action.

As of April 2002, the West Nusa Tenggara Local House of Representatives has been drafting local regulations regarding STD permits and retributions. On April 28, 2002 a number of local NGOs including WALHI NTB, LOH and KOLLIS held a public consultation with fisherpeoples from the Sumbawa region about the local government’s blueprint regulation regarding the Control of the Impacts of Waste Disposal on the Ocean.

The consultation was also an opportunity to gather input and opinions from the public and fisher community and NGOs in order to prepare for participation in the decision-making political process. It also criticized the local government licensing and retribution system for the dumping of waste into the ocean. Most of the participants did not agree with the STD since it threatens to destroy the marine ecosystem, their livelihoods and welfare. They were also against the local government licensing companies to use it. Participants recognized that the drafting of local government regulations involved people who did not understand the ocean or the fisherpeoples’ dependence on the ocean for their subsistence.

During the consultation, the community drafted the following position statement:

1. The ocean is a blessing from God, and is a source of life for humans.
2. The West Nusa Tenggara must not become a garbage can, a place for waste disposal.
3 Local regulations regarding the control and ban of waste disposal into the ocean are far more urgent and important.

4. The West Nusa Tenggara Local House of Representatives must act on behalf of the community by saving the ocean, the community’s life source, from pollution.

5. We reject the efforts by the West Nusa Tenggara Local House of Representatives to legalize the local government draft regulations on permits and retributions for the disposal of wastes into the ocean.

The communities are united in their position to stop Newmont from abusing their basic human rights including dumping wastes into the ocean, their source of food and livelihood. While the local government is currently creating laws related to STD, laws that will affect the fate of the communities, the communities are taking action to have their voices heard and their rights recognized.

By Tracy Glynn for JATAM