

Below a Mountain of Wealth, a River of Waste

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JAKARTA, Indonesia - The closest most people will ever get to remote Papua, or the operations of Freeport-McMoRan, is a computer tour using Google Earth to swoop down over the rain forests and glacier-capped mountains where the American company mines the world's largest gold reserve.

With a few taps on a keyboard, satellite images quickly reveal the deepening spiral that Freeport has bored out of its Grasberg mine as it pursues a virtually bottomless store of gold hidden inside. They also show a spreading soot-colored bruise of almost a billion tons of mine waste that the New Orleans-based company has dumped directly into a jungle river of what had been one of the world's last untouched landscapes.

What is far harder to discern is the intricate web of political and military ties that have helped shield Freeport from the rising pressures that other gold miners have faced to clean up their practices. Only lightly touched by a scant regulatory regime, and cloaked in the protection of the military, Freeport has managed to maintain a nearly impenetrable redoubt on the easternmost Indonesian province as it taps one of the country's richest assets.

Months of investigation by The New York Times revealed a level of contacts and financial support to the military not fully disclosed by Freeport, despite years of requests by shareholders concerned about potential violations of American laws and the company's relations with a military whose human rights record is so blighted that the United States severed ties for a dozen years until November.

Company records obtained by The Times show that from 1998 through 2004, Freeport gave military and police generals, colonels, majors and captains, and military units, nearly \$20 million. Individual commanders received tens of thousands of dollars, in one case up to \$150,000, according to the documents. They were provided by an individual close to Freeport and confirmed as authentic by current and former employees.

Freeport said in a written response to The Times that it had "taken appropriate steps" in accordance with American and Indonesian laws to provide a secure working environment for its more than 18,000 employees and contract workers. "There is no alternative to our reliance on the Indonesian military and police in this regard," the company said. "The need for this security, the support provided for such security, and the procedures governing such support, as well as decisions regarding our relationships with the Indonesian government and its security institutions, are ordinary business activities."

While mining and natural resource companies sometimes contribute to the costs to foreign governments in securing their operations, payments to individual officers raise questions of bribes, said several people interviewed by The Times, including a former Indonesian attorney general, who said it was illegal under Indonesian law for officers to accept direct payments.

The Times's investigation also found that, according to one current and two former company officials who helped set up a covert program, Freeport intercepted e-mail messages to spy on its environmental opponents. Freeport declined to comment.

More than 30 current and former Freeport employees and consultants were interviewed over the past several months for this article. Very few would speak for attribution, saying they feared the company's retribution.

Freeport's support of the military is one measure of its extraordinary working environment. In the 1960's, when Freeport entered Papua, its explorers were among the very first outsiders ever encountered by local tribesmen swathed only in penis gourds and armed with bows and arrows.

Since then, Freeport has built what amounts to an entirely new society and economy, all of its own making. Where nary a road existed, Freeport, with the help of the San Francisco-based construction company Bechtel, built virtually every stitch of infrastructure over impossible terrain in engineering feats that it boasts are unparalleled on the planet.

That history, Papua's extreme remoteness and the company's long ties to the Indonesian government have given Freeport exceptional sway over a 21st-century version of the old company town, built on a scale unique even by the standards of modern mega-mining.

"If any operation like this was put forward now, it wouldn't be allowed," said Witoro Soelarno, a senior investigator at the Department of Energy and Mineral Resources, who has visited the mine many times. "But now the operation exists, and many people depend on it."

For years, to secure Freeport's domain, James R. Moffett, a Louisiana-born geologist who is the company chairman, assiduously courted Indonesia's longtime dictator, President Suharto, and his cronies, having Freeport pay for their vacations and some of their children's college education, and cutting them in on deals that made them rich, current and former employees said.

It was a marriage of mutual convenience. As Freeport prospered into a company with \$2.3 billion in revenues, it also became among the biggest -- in some years the biggest -- source of revenue for the government. It remains so. Freeport says that it provided Indonesia with \$33 billion in direct and indirect benefits from 1992 to 2004, almost 2 percent of the country's gross domestic product. With gold prices hitting a 25-year high of \$540 an ounce this month, the company estimates it will pay the government \$1 billion this year.

With Suharto's ouster in 1998, after 30 years of unchallenged power, Freeport's special place was left vulnerable. But its importance to Indonesia's treasury and its carefully cultivated cocoon of support have helped secure it against challenges from local people, environmental groups, and even the country's own Environment Ministry.

Letters and other documents provided to The Times by government officials showed that the Environment Ministry repeatedly warned the company since 1997 that Freeport was breaching environmental laws. They also reveal the ministry's deep frustration.

At one point last year, a ministry scientist wrote that the mine's production was so huge, and regulatory tools so weak, that it was like "painting on clouds" to persuade Freeport to comply with the ministry's requests to reduce environmental damage.

That frustration stems from an operation that, by Freeport's own estimates, will generate an estimated six billion tons of waste before it is through -- more than twice as much earth as was excavated for the Panama Canal.

Much of that waste has already been dumped in the mountains surrounding the mine or down a system of rivers that descends steeply onto the island's low-lying wetlands, close to Lorentz National Park, a pristine rain forest that has been granted special status by the United Nations.

A multimillion-dollar 2002 study by an American consulting company, Parametrix, paid for by Freeport and its joint venture partner, Rio Tinto, and not previously made public, noted that the rivers upstream and the wetlands inundated with waste were now "unsuitable for aquatic life." The report was made available to The Times by the Environment Ministry.

Freeport says it strives to mitigate the environmental effect of its mine, while also maximizing the benefits to its shareholders. The Times made repeated requests to Freeport and to the Indonesian government to visit the mine and its surrounding area, which requires special permission for journalists. All were turned down.

Freeport refused to make any official available for an interview and would respond to questions only in writing. A cover letter signed by its legal counsel, Stanley S. Arkin, said that Grasberg is a copper mine, with the gold retrieved as a byproduct, and that many journalists had visited the mine before the government tightened its rules in the 1990's.

"Freeport has nothing to hide," Mr. Arkin wrote.

Indeed, at Grasberg, Freeport-McMoRan Copper & Gold mines the world's third-largest copper deposit. The mine also has proven reserves of 46 million ounces of gold, according to the company's 2004 annual report. This year, Mining International, a trade journal, called Freeport's gold mine the biggest in the world.

Social Tensions Erupt

Since Suharto's ouster, Freeport employees say, Mr. Moffett's motto has been "no tall trees," a call to keep as low a profile as possible, for a company that operates on an almost unimaginable scale.

But even before then, the new world that Freeport created was growing smaller. By the mid-1990's, with production in full swing, and the expanding impact of Grasberg's operations ever more apparent, Freeport was beset on all sides. Environmental groups, able to coordinate more effectively with the Internet, made Freeport a target. Local tribes were more and more restless at seeing little benefit for themselves as vast riches were extracted from their lands. And some military commanders in Papua saw Grasberg's increasing value as ripe for the plucking.

To fortify itself, Freeport, working hand in hand with Indonesian military intelligence officers, began monitoring the e-mail messages and telephone conversations of its environmental opponents, said an employee who worked on the program and read the e-mail messages.

The company also set up its own system to intercept e-mail messages, according to former and current employees, by establishing a bogus environmental group of its own, which asked people to register online with a password. As is often the case, many who registered used the same password for their own messages, which then allowed the company to tap in.

Freeport's lawyers were nervous, a person who was at the company at the time said, but decided that nothing prohibited the company legally from reading e-mail messages abroad.

Social tensions around the mine, meanwhile, were fast growing, as was Papua's population. Papua, mostly animist and Christian after long years of missionary work, is distinct in many ways from the rest of Indonesia, the world's largest Muslim country.

Almost from Indonesia's independence, the province had rumblings of a separatist movement. Throughout Indonesia the military, a deeply nationalist institution, finances itself by setting up legal enterprises like shopping centers and hotels, or illicit ones, like logging. In Papua, the Grasberg mine became a chance for the military not only to profit but also to deepen its presence in a province where it had barely a toehold before Freeport arrived.

For many years Freeport maintained its own security force, while the Indonesian military battled a weak, low-level insurgency. But slowly their security needs became entwined.

"Where Freeport really took it on the chin is the military who came in had no vehicles, and they would commandeer a Freeport bus or a Freeport driver," said the Rev. David B. Lowry, an Episcopal minister hired by Mr. Moffett to oversee social programs. "We had no policies at that time."

No investigation directly linked Freeport to human rights violations, but increasingly Papuans associated it with the abuses of Indonesian military units, in some cases using company facilities.

An Australian anthropologist, Chris Ballard, who worked for Freeport, and Abigail Abrash, an American human rights campaigner, estimated that 160 people had been killed by the military between 1975 and 1997 in the mine area and its surroundings.

Finally, in March 1996, long-simmering anger at the company erupted in rioting when anti-mine sentiment among different groups coalesced into what was perhaps the biggest threat to the company to this day.

The mine and its mill were shut down for three days. Rioters destroyed \$3 million of equipment and ransacked offices. The company intercepted e-mail messages that, according to two persons who read them at the time, suggested that certain military units, the community and environmental groups were working together.

One e-mail exchange, between a community leader and the head of an environmental group, was filled with tactical military intelligence, according to a person who read the messages. In another exchange, an environmental leader urged the group's members to pull out because the demonstrations had turned violent.

Freeport told The Times that local leaders later met with company officials and said "they had provoked the disturbances as a means of expressing their aspiration to receive greater benefits from our operations."

In recent interviews, current and former Freeport officials recalled how they were stunned when, among those rioting, they saw men with military haircuts, combat boots and walkie-talkies. They seemed to be directing the rioters, at one point, to a Freeport laboratory, which they ransacked.

It was not long before a worried Mr. Moffett flew out to Indonesia in the company jet.

Freeport refused to comment on the meeting that followed. But a company official who was there recounted that Mr. Moffett met with a group of senior Indonesian military officers at the Sheraton Hotel in the lowland town of Timika, near the mine. The all-powerful Gen. Prabowo Subianto, son-in-law of President Suharto and commander of the Indonesian Special Forces, presided.

"Mr. Moffett, to protect you, to protect your company, you have to help the military here," General Prabowo began, according to the company employee who was present.

Mr. Moffett is said to have replied: "Just tell me what I need to do."

The Cost of Security

Each military service drew up its wish list, current and former company employees said.

In short order, Freeport spent \$35 million on military infrastructure -- barracks, headquarters, mess halls, roads -- and it also gave the commanders 70 Land Rovers and Land Cruisers, which were replaced every few years. Everybody got something, even the Navy and Air Force.

The company had already hired a former C.I.A. operative, and on his recommendation, it now approached a military attaché at the American Embassy in Jakarta, and persuaded him to join the company, according to former and current employees. Two more former American military officers were hired, and a special department, called the Emergency Planning Operation, was set up to handle the company's new relationship with the Indonesian military.

The new department began making direct monthly payments to Indonesian military commanders, while the Security Risk Management office handled the payments to the police, according to company documents and current and former employees.

"They signed a pact with the devil," said an American who was part of Freeport's security operations at the time, and who agreed with the company's decision.

Freeport gave the military and the police in Papua at least \$20 million from 1998 to May 2004, according to company documents. In interviews, current and former employees said that at least an additional \$10 million was also paid during those years.

Seven years of accounting records were provided to The Times by an individual close to the company. Additional records for three years were provided by Global Witness, a nongovernment organization, which released a report last July, "Paying for Protection," about Freeport's relations with the Indonesian military.

Diarmid O'Sullivan, who works for Global Witness in London, criticized the payments. It may be necessary for a company to help governments with security, he said, but "they should give the money through the proper channels, in a transparent way."

Freeport told The Times, "Our books and records are transparent and accurately reflect the support that we provide." That support, the company said in its responses, included "mitigating living costs," as well as "infrastructure, catered food and dining hall costs, housing, fuel, travel, vehicle repairs, allowances to cover incidental and administrative costs, and community assistance programs conducted by the military and police."

The company said all of its expenditures were subject to a budget review process.

The records received by The Times showed payments to individual military officers listed under things like "food cost," "administrative services" and "monthly supplement."

Current and former employees said the accounting categories did not reflect what the money was actually used for, and that it was likely that much of the money went into the officers' pockets. The commanders who received the money did not have to sign receipts, current and former employees said.

Asked if there was a reason Freeport would give money directly to military officers, Father Lowry, who retired in March 2004, but remained a consultant to Freeport until June, said, "I can't think of a good one."

The records show that the largest recipient was the commander of the troops in the Freeport area, Lt. Col. Togap F. Gultom.

During six months in 2001, he was given just under \$100,000 for "food costs," according to the company records, and more than \$150,000 the following year. Freeport gave at least 10 other commanders a total of more than \$350,000 for "food costs" in 2002, according to the records.

Colonel Gultom declined to be interviewed.

Those payments were made to individual officers, current and former employees said, even though since the riots Freeport had allowed soldiers to eat in the company's mess and had trucked food to more distant military kitchens. "Three meals a day, seven days a week," a former official said.

Freeport also gave commanders commercial airplane tickets for themselves and their wives and children. Generals flew first or business class and lower ranking officers flew economy, said Brig. Gen. Ramizan Tarigan, who received \$14,000 worth of tickets in 2002 for himself and his family.

General Tarigan, who held a senior police post, said that police officers were allowed to accept airplane tickets because their pay was so low -- as a general, his base salary was roughly \$400 a month -- but that it was in violation of police regulations to receive cash payments.

In April 2002, the company gave the senior commander of forces in Papua, Maj. Gen. Mahidin Simbolon, more than \$64,000, for what was described in Freeport's books as "fund for military project plan 2002." Eight months later, in December, he was given more than \$67,000 for a "humanitarian civic action project." The payments were first reported by Global Witness.

General Simbolon, who is now inspector general of the Indonesian Army, declined requests to be interviewed. A former Freeport employee who was involved in making those payments said the company could not be certain how much of the money General Simbolon actually spent on those projects.

Unsolved Killings

By 2003, following the Enron scandal and passage of the Sarbanes-Oxley Act, which imposed more rigid accounting practices on companies, Freeport began making payments to military and police units instead of individual officers, according to records and current and former employees.

The company paid police units in Papua slightly under \$1 million in 2003, according to the records, listed under items like "monthly supplement payment," "administrative costs" and "administrative support."

Freeport told The Times that "company policies take into account the potential for human rights abuses in determining what types of assistance to provide."

According to the records received by The Times, the police Mobile Brigade, a paramilitary force often cited by the State Department for its brutality, received more than \$200,000 in 2003.

In its 2003 annual human rights report, the State Department said soldiers from the Mobile Brigade "continued to commit numerous serious human rights violations, including extrajudicial killings, torture, rape, and arbitrary detention." It cited no specific incidents from Papua.

There was another reason for extra care by the company.

In August 2002, three teachers employed by Freeport, including two Americans, were killed in an ambush on a company road patrolled by the military that Freeport had paid to protect its employees. Three years later, the F.B.I. is still investigating and the reasons for the killings have not been determined. Freeport said that it could not comment on the investigation.

The United States indicted a Papuan, Anthonius Wamang, in 2004. But it has yet to receive the full cooperation of the military, several American officials said.

Freeport employees and American officials said the killings could have been part of a turf war between the military and the police, each of which wanted access to Freeport payments.

An initial report by the Indonesian police pointed to the Indonesia military, and some Freeport and Bush administration officials have said they suspect some level of military involvement.

The police report suggested that the motivation was that Freeport was threatening to cut its support to soldiers. Soldiers assigned to Papua have "high expectations," the report said, but recently, "their perks, such as vehicles, telephones, etc., were reduced."

Questions of Accountability

Freeport has resisted nearly any detailed disclosure of its payments to the military, saying they are legal and even required under Indonesian law.

Marsillam Simanjuntak, who was minister of justice and later attorney general in one of the first governments after the fall of President Suharto, said it was a violation of Indonesian law for soldiers or police officers to accept payments from a company. "Of course, it's illegal," he said.

But many companies do it, he said. The better question to ask, he said, was, "Is it allowed by the laws of the United States?"

This year, the New York City pension funds submitted a shareholder resolution asking Freeport to review its policy on paying the police and military. They argued that it could violate the Foreign Corrupt Practices Act, which forbids American companies from paying bribes to foreign officials. Freeport opposed the resolution.

In 2002, the funds submitted a similar resolution demanding that Freeport disclose how much it was paying to the military. Freeport kept it off the ballot.

In later filings with the Securities and Exchange Commission, Freeport reported that it had paid the military a total of \$4.7 million in 2001, and \$5.6 million in 2002. The company did not indicate whether the money was paid into commanders' personal accounts, or what the money was used for.

Freeport, in its responses, said it was complying with the Voluntary Principles on Security and Human Rights, a set of guidelines drawn up by the State Department. They recognize that natural resource companies "may be required or expected to contribute to, or otherwise reimburse, the costs of protecting company facilities."

The principles do not address the question of direct payments to individual officers. Nor do they require companies to account for the payments.

Freeport has also said that the payments were required under its Contract of Work, its basic agreement with the government of Indonesia, first signed in 1967 and updated in 1991.

The company declined to provide a copy of the contracts to The Times. A copy of each was provided by Denise Leith, author of "The Politics of Power: Freeport in Suharto's Indonesia." They contained no language requiring payments to the military.

S. Prakash Sethi, head of the International Center for Corporate Accountability, which recently concluded a report on Freeport's development policies in Papua, said that the company had told him that it made "in-kind" contributions to the military, for housing and food, but that he had not been given access to accounting records.

Any direct payments to military officers would be illegal, said Mr. Sethi, an expert on business ethics and corporate social responsibility and a professor at Baruch College. "It's corruption," he said. "It's bribery."

Mine Waste in the Rivers

All the while Freeport sealed its relations with the military, the country's fledgling environment ministry could do little but watch as waste from the mine piled up.

This year Freeport told the Indonesian government that the waste rock in the highlands, 900 feet deep in places, now covers about three square miles.

Down below, nearly 90 square miles of wetlands, once one of the richest freshwater habitats in the world, are virtually buried in mine waste, called tailings, with levels of copper and sediment so high that almost all fish have disappeared, according to environment ministry documents.

The waste, the consistency and color of wet cement, belts down the rivers, and inundates and smothers all in its path, said Russell Dodt, an Australian civil engineer who managed the waste on the wetlands for 10 years until 2004 for Freeport.

About a third of the waste has moved into the coastal estuary, an essential breeding ground for fish, and much of that "was ripped out to sea by the falling tide that acted like a big vacuum cleaner," he said.

But no government, even in Indonesia's new democratic era, has dared encroach on Freeport's prerogatives. The strongest challenge came in 2000, when a feisty politician, Sonny Keraf, who was sympathetic to the Papuans, was appointed environment minister.

Again, Mr. Moffett flew out to Jakarta.

Mr. Keraf initially refused to see the Freeport boss, but eventually agreed, and on the day kept him waiting for an hour and a half. "He came in so arrogant," Mr. Keraf recalled of the meeting in a recent interview, "sitting with his legs crossed."

Freeport refused to comment on the meeting. The American ambassador to Indonesia at the time, Robert Gelbard, said in an interview: "It was a terrible meeting."

Mr. Keraf said that Mr. Moffett had said that his company had never polluted. "I told him that he should spend the money he spent on paying off people not to talk about the mine to properly dispose of the waste," Mr. Keraf said.

Behind the scenes, Mr. Keraf kept up the pressure, angered that the company was using the rivers, forest and wetlands for its mine waste, a process allowed during the Suharto years.

An internal ministry memorandum from 2000 said the mine waste had killed all life in the rivers, and said that this violated the criminal section of the 1997 environmental law.

In January 2001, Mr. Keraf wrote to the coordinating minister for economic affairs, arguing that Freeport should be forced to pay compensation for the rivers, forests and fish that its operations had destroyed.

Six months later, one of his deputies, Masnellyarti Hilman, wrote to Freeport, saying a special environmental commission had recommended that the company stop using the river as a waste chute, and instead build a system of pipes.

She also told Freeport to build sturdier dam-like walls to replace the less solid levees that it used to contain the waste on the wetlands. That practice has continued.

Freeport says that local and regional governments have approved its waste management plans, and that the central government has approved its environmental impact statement and other monitoring plans.

But in a blistering July 2001 letter, Mr. Keraf took the governor of Papua to task for granting Freeport a permit in 1996 to use the rivers for its waste. The governor, Mr. Keraf said, had no authority to grant permits more lenient than the provisions of national laws.

Despite all these efforts, nothing happened. Mr. Keraf was unable to secure the support of other government agencies or his superiors in the cabinet.

In August 2001, a new government came to power, and a less aggressive minister, Nabil Makarim, replaced Mr. Keraf. At first, he, too, talked publicly of setting stricter limits on Freeport. Soon his efforts petered out.

The Environment Ministry has begun trying to put teeth into its rules where it can. It brought a criminal suit against the world's largest gold company, Newmont Mining Corporation, for alleged pollution, including a charge of not having a permit for disposing of mine waste into the sea. Newmont has fought the charges vigorously.

But in the case of Freeport, the ministry has had no traction. Freeport still does not hold a permit from the national government to dispose of mine waste, as required by the 1999 hazardous waste regulations, according to Rasio Ridho Sani, assistant deputy for toxic waste management at the ministry. Mr. Arkin, Freeport's counsel, said that the company cooperated well with the environment ministry and that Freeport would not otherwise comment.

"Freeport says their waste is not hazardous waste," Mr. Rasio said. "We cannot say it is not hazardous waste." He said his division and Freeport were now in negotiations on how to resolve the permit question.

'A Massive Die-Off'

The environment ministry was not the first to challenge Freeport over how it has disposed of its waste in Papua. The Overseas Private Investment Corporation, a United States government agency that insures American corporations for political risk in uncertain corners of the world, revoked Freeport's insurance policy in October 1995.

It was a landmark decision, the first time that the agency had cut off insurance to any American company for environmental or human rights concerns.

In doing so, two environmental experts, Harvey Himberg, an official at the agency, and David Nelson, a consultant, after visiting the mine for several days, issued a report critical of Freeport's operations, especially the huge amounts of waste it had sent into rivers, something that would not be allowed in the United States.

The company went to court to block the report from being made public, and only a redacted version was later released. A person who thought it should be made public provided an uncensored copy to The Times.

Freeport says the report reached "inaccurate conclusions." The company says it has considered a full range of alternatives for managing and disposing of its waste, instead of using the river, and settled on the best one.

A storage area would not be large enough and would require a tall dam in a region of heavy rainfalls and earthquakes, it said. A waste pipeline, rather than the river, would be too costly, prone to landslides and floods.

To the American auditors, such arguments were not convincing.

Freeport "characterizes engineered alternatives as having the highest potential for catastrophic failure when the project otherwise takes credit for legendary feats," the audit noted, like the pipelines more than 60 miles long down the mountains to carry fuel and copper and gold slurry.

At the time, the waste was jumping the riverbanks, "resulting in a massive die-off of vegetation," the report said.

The company threatened to take the agency to court over the cancellation of its insurance. After protracted negotiations, the policy was reinstated for a few months, as a face-saving gesture to Mr. Moffett, according to the head of the agency then, Ruth Harkin. It was not renewed.

Today, many of the same problems persist, but on a much larger scale. A perpetual worry is where to put all the mine's waste -- accumulating at a rate of some 700,000 tons a day.

The danger is that the waste rock atop the mountain will trickle out acids into the honeycomb of caverns and caves beneath the mine in a wet climate that gets up to 12 feet of rain a year, say environmental experts who have worked at the mine.

Stuart Miller, an Australian geochemist who manages Freeport's waste rock, said at a mining conference in 2003 that the first acid runoffs began in 1993.

The company can curb much of it today, he said, by blending in the mountain's abundant limestone with the potentially acid producing rock, which is also plentiful. Freeport also says that the company collects the acid runoff and neutralizes it.

But before 2004, the report obtained by The Times by Parametrix, the consulting company who did the study for Freeport, said that the mine had "an excess of acid-generating material."

A geologist who worked at the mine, who declined to be identified because of fear of jeopardizing future employment, said acids were already flowing into the groundwater. Bright green-colored springs could be seen spouting several miles away, he said, a tell-tale sign that the acids had leached out copper. "That meant the acid water traveled a long way," he said.

Freeport says that the springs are "located several miles from our operations in the Lorentz World Heritage site and are not associated with our operations."

The geologist agreed that the springs probably were in the Lorentz park, and said this showed that acids and copper from the mine were affecting the park, considered a world treasure for its ecological diversity.

In the lowlands, the levees needed to contain the waste will eventually reach more than 70 feet high in some places, the company says.

Freeport says that the tailings are not toxic and that the river it uses for its waste meets Indonesian and American drinking water standards for dissolved metals. The coastal estuary, it says, is a "functioning ecosystem."

The Parametrix report shows copper levels in surface waters high enough to kill sensitive aquatic life in a short time, said Ann Maest, a geochemist who consults on mining issues. The report showed that nearly half of the sediment samples in parts of the coastal estuary were toxic to the sensitive aquatic organisms at the bottom of the food chain, she said.

The amount of sediment presents another problem. Too many suspended solids in water can smother aquatic life. Indonesian law says they should not exceed 400 milligrams per liter.

Freeport's waste contained 37,500 milligrams as the river entered the lowlands, according to an environment ministry's field report in 2004, and 7,500 milligrams as the river entered the Arafura Sea.

Freeport would not comment on the measurements. The company says it spent \$30 million on environmental programs in 2004, and planted 50,000 mangrove seedlings last year as part of its reclamation efforts. It says cash crops can be grown on the waste with the addition of nutrients, and has begun demonstration projects.

An Uneasy Coexistence

If the accumulating waste is the despair of critics, for Freeport it signals expanding production. To keep its mine running, the company has increasingly had to play caretaker for the world that it has created.

After the 1996 riots, Freeport began dedicating 1 percent of revenues annually to a development fund for Papua to pay for schools, medical services, roads -- whatever the people wanted.

The company built clinics and two hospitals. Other services include programs to control malaria and AIDS and a "recognition" fund for the Kamoro and Amungme tribes of several million dollars which, among other things, gives them shares in the company as part of a compensation package for the lands Freeport is using.

By the end of 2004, Freeport had spent \$152 million on the community development fund, the company said.

Mr. Sethi, of the Center for Corporate Accountability, commended Freeport for commissioning the report on the company's development programs, saying that it was the first mining company to do so.

The report, which was released in October, concluded that the company had successfully introduced a human rights training program for its employees and had doubled the number of Papuan employees by 2001. The company was poised to double the number of Papuans in the work force again by 2006, the audit said.

Still, Thom Beanal, the Amungme tribal leader, says the combined weight of the Indonesian government and Freeport has left his people in bad shape. Yes, he said, the company had provided electricity, schools and hospitals, but the infrastructure was built mainly for the benefit of Freeport.

Mr. Beanal, 57, a vocal supporter of independence for Papua, has fought the company from outside and inside. In 2000, he decided that harmony was the better path, and joined the company's advisory board.

In November, he and other Amungme and Komoro tribesmen met with Mr. Moffett at the Sheraton Hotel in Timika. In an interview in Jakarta not long afterward, Mr. Beanal said he told Mr. Moffett that the flood of money from the community fund was ruining people's lives.

When the company arrived, he noted, there were several hundred people in the lowland village of Timika. Now it is home to more than 100,000 in a Wild West atmosphere of too much alcohol, shootouts between soldiers and the police, AIDS and prostitution, protected by the military.

Still more soldiers are on the way. Having negotiated an end to a separatist insurrection this year in another province, Aceh, the government is redeploying soldiers to Papua in a move to defeat the growing enthusiasm for independence, once and for all, and to watch over the province with the world's biggest gold mine. Freeport says its gold ore has 35 years to go.

Mr. Beanal said he was increasingly impatient with the presence of the soldiers and the mine. "We never feel secure there," he said. "What are they guarding? We don't know. Ask Moffett, it's his company."

The Cost of Gold Articles in this series examine gold mining around the world. Previous articles are available on the Web at nytimes.com/world. Evelyn Rusli contributed reporting for this article.