

Mining Ombudsman Case Report: Marinduque Island





Acknowledgements

This report was produced through the skills, knowledge and hard work of many dedicated people. We extend our thanks and respect to the many women and men from communities who suffer the impacts of irresponsible mining activities in their daily lives. The information, knowledge and learning in this report largely arises through their support for the Oxfam Australia Mining campaign. The first-hand case information of many non-government organisations and researchers has also been invaluable.

Oxfam Australia would like to thank our Australian-based local groups which contributed funds to the production of this report and casework. These include the Oxfam Australia Adelaide Book Store and Travel Group and the Canterbury, Chadstone, Knox, Bayside, Bayswater, Dandenong Ranges, Warrnambool, Mornington, Morwell, Southern Fleurieu and the Western Australian groups. The generous support of such groups has enabled Mining Ombudsman to assist communities to raise their grievances with Australian mining companies, and to defend their rights to a sustainable livelihood and voice. We would also like to acknowledge the technical support of Dr. Alan Tingay.

No Australian government funds nor tax-deductible donations have been used to fund the production of this report or the work of the Mining Ombudsman.

Feedback welcome

We appreciate any feedback, comments or input you may have about issues and cases discussed in this report. Comments can also be emailed to miningombudsman@oxfam.org.au

This report is available online at www.oxfam.org.au/campaigns/mining

Cover: Fishermen pass the 7 kilometre causeway of mine tailings dumped in Calancan Bay by the Marcopper mine. David Sproule/OxfamAUS

Left: Michael (top) and Jay (bottom). Michael has skin problems which local people blame on the mine waste pumped into Calancan Bay. Photo: David Sproule/OxfamAUS

Published March 2005

Oxfam Australia

156 George Street Fitzroy Victoria Australia 3065

ABN 18 055 208 636

Telephone +61 3 9289 9444 Website www.oxfam.org.au/campaigns/mining Email miningombudsman@oxfam.org.au

Authors Ingrid Macdonald and Katy Southall

Editors Sarah Lowe and Lisa Vettori

Proof reader Gloria Martinez

Picture editor Martin Wurt

Design Paoli Smith

Contributors

Catherine Coumans, Alan Tingay, Pablo Brait, Brendan Ross, Laura Nixon, Nina Field, Marc Purcell

Printed on 100 per cent recycled paper.

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Executive summary

When Marcopper started mining copper on Marinduque Island in the Philippines four decades ago, local communities could not have foreseen the devastation it would bring. For more than 20 years, Marcopper dumped millions of tonnes of toxic mine waste into Marinduque's seas and polluted its rivers. As a result, people have lost their health, livelihoods and some have even lost their lives

The Marcopper mine was operated from 1967 to 1996 by Marcopper Mining Corporation, which was owned by Philippine President Ferdinand Marcos and Placer Development Limited until 1987. When Marcos was overthrown, ownership of Marcopper moved to the Philippine Government and to a newly formed Placer Dome. Placer Development Limited and Placer Dome were the only mining companies involved in Marcopper, and the only party with the technical expertise and operational experience to manage such a large-scale mine.

The mine was forced to close in 1996 when the Philippine Government declared a 'State of Calamity' following a mine disaster. Placer Dome divested from the Philippines in 1997, and its subsidiary, Placer Dome Technical Services, divested in 2001. Local communities and their support organisations advised the Mining Ombudsman that they cannot ascertain who owns Marcopper and its main shareholder F Holdings.

Placer Dome is now the world's sixth largest gold producer, and is listed on the Australian Stock Exchange. It has mines in the Eastern Goldfields region of Western Australia, Tasmania and Queensland. In Canada, where its head office is based in Vancouver, it operates three large gold mines in Northern Ontario.

Oxfam Australia's Mining Ombudsman began investigating the Marinduque case in 2002 at the invitation of a local community support organisation, the Marinduque Council for Environmental Concerns (MACEC). In 2004, the Mining Ombudsman undertook two field investigations and funded scientific research.

The main problems raised by the local women, men and children during the Mining Ombudsman investigations are:

 Over a 16-year period from 1975 to 1991, approximately 200 million tonnes of mine tailings (waste) was pumped at sea surface level into Calancan Bay – waters which 20,000 people relied on for their livelihood and food through fishing. The communities complain of a loss of livelihood, health and environmental impacts with little or no rehabilitation of their environment or payment of compensation. Heavy metal poisoning is blamed for the deaths of at least three children and many others have undergone traumatic lead detoxification. Fishermen have lost limbs which they allege is the result of arsenic contamination from the mine waste. Stomach complaints, dementia and cancer are common.

2. In 1993 the collapse of the Maguila-Guila dam at the Marcopper mine released a flood of metal-enriched silt into the Mogpog River. The flood killed two children, destroyed homes, drowned livestock and contaminated farmland. The integrity of the dam is again in question and people live in fear of another collapse. An assessment of its safety is urgently needed. Community women, men and children say that they experience ongoing health, environmental and farming problems as a result of mine pollution and have received little or no rehabilitation of their environment or payment of compensation.

In June 2004 the Oxfam Australia Mining Ombudsman funded a scientific team to assess water quality along the Mogpog River. The results of this study support community claims about pollution levels and indicate that:

- The Mogpog River is polluted as a result of continual run-off and silt from the mine
- Pollution will continue indefinitely as thousands of tonnes of mine waste dumped at the top of the river erode
- Levels of cadmium, copper, lead, manganese, nickel and sulphate present a hazard to human health
- Acid and metal levels are high enough to kill most aquatic animals.

3. In 1996 a drainage tunnel to the Boac River burst, filling the river with four million tonnes of mine tailings. The Philippine Government declared a 'State of Calamity' as a result of the ensuing environmental and health devastation. Along the Boac River, the communities complain that compensation payments have been either too little, too late or non-existent. They also allege that rehabilitation has been inadequate and has included potentially dangerous practices such as employing local women and men to put contaminated tailings from the river into bags with their unprotected hands.

The Mining Ombudsman has specific recommendations, as voiced by the affected women, men and children of Marinduque since the mine's closure in 1996. In summary, the communities of Marinduque are demanding:

- Compensation for the deaths of their children, their lost livelihoods and homes, their poor health and their polluted environment.
- 2. Access to immediate treatment for their health problems.
- 3. The full rehabilitation of their polluted rivers, land and oceans.
- Immediate action to stop ongoing pollution from the Marcopper waste dumps and Calancan Bay tailings causeway and to address the dangerous state of repair of the Maguila-Guila tailings dam and 310 tunnel.
- Transparency and information disclosure by the companies and full participation in all decision-making.
- 6. The Marinduque mine is not reopened.

Konsignor Senen Malapad, the diffe

"As a spiritual leader, our people try to reflect how this came about and we realised this is not something that God wanted to bring on his people, but this is just a result of negligence and irresponsibility of a mining company that tried to operate here in Marinduque."

– Monsignor Senen Malapad Diocese, Chair of local community organisation Marinduque Council for Environmental Concerns (MACEC) and Parish Priest, Marinduque, March 2004.

On 6 August 2004, Placer Dome advised the Mining Ombudsman that it was not the owner and operator of the Marcopper mine and that responsibility for any on-going problems at Marinduque should be directed to Marcopper Mining Corporation. But, who now owns Marcopper and its main shareholder F Holdings is difficult to ascertain. Placer Dome also provided background information concerning remediation work conducted by its subsidiary on the Boac River and compensation paid to some local residents. It did not address the community concerns and problems at Mogpog or Calancan Bay. The letters and background information are available on the Oxfam Australia website at www.oxfam.org.au/campaigns/mining

The communities on Marinduque who continue to live with the legacy of the Marcopper mine feel their situation is hopeless. They believe that the world has forgotten them whilst Placer Dome receives global accolades for its socially responsible behaviour. Many say that Placer Dome has some responsibility for the deaths of their children, widespread ill-health and



Sonny Boy Mataya, Bocboc, Mogpog age 45 in front of millions of tonnes of mine waste the sits above the Maguila-guila dam on the Mogpog River. As the dam is in a state of disrepair, Sonny Boy fears that another disaster may happen any time. Photo: Ingrid Macdonald/OxfamAUS



Monsignor Senen Malapad, the diocese MACEC chairman and parish prist on Marinduque Island. Photo: David Sproule/OxfamAUS

their polluted environment. Yet, it would be almost impossible to now hold Placer Dome legally liable in the Philippines for what occurred on Marinduque Island, not least because the company has divested from the country. Many question why foreign mining companies are able to come to their country and use or invest in mining practices that would be unacceptable in the company's home country. They also question why such companies can then disappear when things go wrong, leaving them with no avenue to seek redress and accountability.

This case clearly shows the need for legal standards which control companies no matter where they operate – ranging from extraterritorial regulations to the extension of international human rights duties to companies via initiatives like the United Nations Norms for Business Enterprises and Human Rights. Similarly, it highlights the need for a formal, broad-based complaints mechanism to oversee the activities of mining companies operating outside their home countries. A body such as this could fairly and independently address the complaints of the people of Marinduque.

The Mining Ombudsman project

In the past few decades, the Australian mining industry has increased its activities in economically developing countries where they are increasingly impacting on poor and vulnerable communities – the same communities that Oxfam Australia has worked with for more than 50 years.

Many communities have complained of human rights abuses and environmental degradation caused by, or on behalf of, Australian mining companies. These communities often have no institution they can turn to for fair and equitable redress, so companies can disregard their concerns. This sometimes leads to costly legal actions and violent confrontations.

This case report illustrates some of the negative impacts that mining can have on local women, men and children.

In February 2000 Oxfam Australia set up the Mining Ombudsman to:

1. Assist women and men from local and indigenous communities whose human rights are threatened by the operations of Australian-based mining companies.

2. Assist women and men from communities that are, or might be, affected by a mining operation to understand their rights under international law.

3. Help ensure that the Australian mining industry operates in such a way that the rights of women and men from local communities affected by mining are better protected.

4. Demonstrate the need for an official complaints mechanism within Australia.

5. Demonstrate the need for enforceable, transparent and binding extraterritorial controls that would require Australian mining companies to adhere to universal human rights standards wherever they operate. The Mining Ombudsman receives complaints through Oxfam Australia networks throughout the world. The Mining Ombudsman checks all claims through site investigations, a process involving extensive interviews with local community men, women and youth, civil society organisations and where possible, government and company officials.

The Mining Ombudsman then produces an investigation report that is sent to all stakeholders for comment and action, and undertakes on-site progress evaluations every 18 months to two years. It is not the Mining Ombudsman's role to judge individual mining projects, but rather to try to ensure that companies treat local communities in a fair and equitable manner, respecting the human rights of local women and men.

A detailed discussion of the framework and arguments in favour of a complaints mechanism for the mining industry is available in the *Mining Ombudsman Annual Report 2004* at www.oxfam.org.au/ campaigns/mining.

Local residents show the Mining Ombudsman the contaminated Mogpog River at the outlet of the Maguila-Guila Dam. Photo: David Sproule/OxfamAUS





INING OMBUDSMAN (MO) RECEIVES COMPLAINT

The Mining Ombudsman process



The Marcopper mine on Marinduque Island. Photo: Brendan Ross/OxfamAUS

The rights-based approach

Oxfam Australia takes a rights-based approach to its work. This approach reflects the view that poverty results from the denial and violation of the human rights of women and men by entities that have more access to power, or through systems that are based on injustice, inequality and discrimination. An explanation of the application of this approach to the mining industry is contained in the *Mining* Ombudsman Annual Report 2004 available at www.oxfam.org.au/campaigns/mining

Human rights and transnational mining corporations

Over the last few decades, there have been considerable changes in the structure of international society. Transnational corporations, including mining companies, have gained unprecedented influence over patterns of economic development - particularly in developing countries which are competing for foreign direct investment.

As stated in an Oxfam America briefing paper:1

'Foreign direct investment (FDI) ... has become such an important part of global development strategies that it has replaced foreign aid as the main source of external capital for many developing countries. Today, FDI amounts to about 60 per cent of the international capital flowing into developing countries each year and is nearly ten times larger than official development assistance. In contrast, in the late 1980s, the amounts of annual aid and FDI in developing countries were roughly the same.²

Recent figures also show that the revenues of five of the largest transnational corporations are more than double the combined Gross Domestic Profit of the poorest 100 countries.³

Given the increasing power of the private sector throughout the world, including the mining and minerals sector, it is essential that companies contribute positively to poverty alleviation and development by upholding and promoting the human rights of people affected by their activities.

This is especially important when mining companies operate in countries where national laws are inconsistent with international human rights standards, or in the majority of cases, where human rights standards are integrated into national law yet the relevant governments fail to uphold these standards. For further information see the Mining Ombudsman Annual Report 2004 available at www.oxfam.org. au/campaigns/mining

The need for accountable management of mining revenues

The full public disclosure of payments made by mining companies and governments and other entities is fundamental if mining is to generate benefits for local communities and not undermine their human rights. The details of how disclosure of government payments by mining companies should work are set out in the Publish What You Pay campaign (http://www.publishwhatyoupay. org). The Mining Ombudsman Annual Report 2004 also highlights gaps in existing disclosure laws about the funders and insurers of mining companies and projects which is available at www.oxfam.org.au/ campaigns/mining

Oxfam Australia's approach to mining

Oxfam Australia is an independent, non-government aid and development agency and the Australian member of the Oxfam International confederation. For more than 50 years Oxfam Australia has been a vehicle for Australians to assist others to build a fairer and more sustainable world by fighting global poverty and injustice. The agency undertakes long-term development projects, provides humanitarian responses during disasters and conflicts, and advocates for policy and practice changes that promote human rights and justice.

Oxfam Australia takes a rights-based approach to its work. This reflects the view that poverty and suffering are

primarily caused and perpetuated by injustice between and within nations, resulting in the exploitation and oppression of vulnerable peoples. Such injustice and suffering are neither natural nor inevitable, but result from the violation of the human rights of women, men and children by people or institutions that have greater access to power, and through systems based on injustice, inequality and discrimination.

Oxfam Australia speaks with its own voice. It does not assume a mandate to speak on behalf of others, but aims to facilitate people speaking for themselves. Oxfam Australia is not opposed to mining, but believes it must be undertaken in accordance with rights codified under the international human rights system,

A summary – benchmarks for the mining industry

Oxfam Australia believes all company operations should apply the same set of universal standards no matter which country a company operates in. Oxfam believes mining companies should:

- · respect the rights of local and indigenous communities to free, prior and informed consent;
- · avoid, minimise and remediate mining's impact on the environment and maximise the benefits to communities;
- not forcibly remove or resettle local and indigenous community women and men to facilitate mining;
- · fairly compensate individuals or groups suffering loss of assets, income or amenities;
- never perpetuate systems of oppression, exploitation and marginalisation;
- not initiate, encourage or become involved in actions by police or armed forces of a host country that are likely to lead to human rights abuses;
- not partake in corrupt activities and avoid activities in conflict zones;
- recognise and respect the special relationship that indigenous peoples have to their land and ensure women have the right to be free of discrimination and harassment;
- · recognise the right of indigenous peoples and women to participate in all negotiations and decision-making concerning their natural resources, land and rights to development;
- apply the same social and environmental standards of operation that they would be required to adhere to in their home country.

These benchmarks represent a summary of the Benchmarks for the mining industry which are available in Appendix 1 of the Mining Ombudsman Annual Report 2004 and at www.oxfam.org.au/campaigns/mining

particularly the right of women and men from communities to give or withhold free, prior and informed consent to both exploration and mining activities.

Oxfam Australia believes that private sector investment can be a driver of economic growth and poverty reduction, provided appropriate regulations and controls exist. However without adherence to human rights standards, mining can cause the loss of land and livelihoods, degradation of land and waterways, and increased violence and conflict. The most vulnerable or marginalised members of communities - such as women, children and indigenous peoples – tend to be most excluded from the economic benefits of mining, and to bear the brunt of its negative social and environmental impacts.

Marinduque Island



Resource Copper (with gold and silver by-products)

Mine locations Two locations on Marinduque Island, the Philippines

Mining method Open-pit – both now closed

Affected communities Communities from Calancan Bay, Mogpog, Boac and around the mine site.

Community support groups Marinduque Council for Environmental Concerns (MACEC)

NGOs

Legal Rights and Natural Resources Center – Kasama sa kalikasan (LRC-KSK, Friends of the Earth Philippines), Luzon Office. website http://www.lrcksk.org MiningWatch Canada www.miningwatch.ca

1. Introduction

1.1 Background

"There are three municipalities composed of several villages that are directly affected by the mining operations of Marcopper - the municipality of Boac, the municipality of Mogpog and the municipality of Santa Cruz. From among these three municipalities, it is only the accountability of the ... company in Boac that they are admitting, but with regard to the responsibility for the environmental and health effects of the operation in two municipalities, their usual answer to our every demand is 'prove it first'". - Adeline Angeles, Chair of the Committee on Environment in the Marinduque provincial legislative body, June 2004.

Marinduque Island is 960 square kilometers in size with a population of approximately 217,000. Its six towns are Boac (the capital), Buenavista, Gasan, Mogpog, Santa Cruz and Torrijos;⁴ its population traditionally depends on farming and fishing.

In 1956 Placer Development Limited undertook exploration on Marinduque Island.⁵ In 1969, the newly established Marcopper Mining Corporation, jointly owned by Placer Development Limited and then Philippines President Ferdinand Marcos, began open-pit mining for copper and some silver and gold at the Mt Tapian ore deposit. When this reserve was depleted in 1990 Marcopper moved to the nearby San Antonio ore body. The amount of tailings produced by the mine was high because of the lower grade of ore, which contained only 0.44 per cent copper.⁶ The production process involved large amounts of rock being dug up, ground to powder and mixed with water and chemicals to form a slurry. Copper was removed and the remainder was tailings or waste.⁷

Ownership

1967-1986

1987-1997

- privatised in 1994

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1997

Placer Dome divests from Marcopper, leaving Placer Dome Technical Services (PDTS) to oversee reclamation, rehabilitation and compensation at Boac.

2001

rehabilitation and compesation issues. 2005

It is currently difficult to ascertain who owns Marcopper and its main shareholder F Holdings.



Ferdinand Marcos (49 per cent) Placer Development Limited (39.9 per cent) Philippine public shares (11.1 per cent)

Philippines Government (49 per cent)

Placer Dome (39.9 per cent) Philippine public shares (11.1 per cent)

PDTS divests from the Philippines and F Holdings assumes handling of reclamation,



Illustration 1:

Map of Marinduque Island showing locations of the mine pits and affected areas. Philippines Department of Environment and Natural Resources.

Chronology of events

1956

Placer Development Limited undertakes geological exploration on Marinduque Island.

1967-69

Marcopper Mine, which is owned jointly by Placer Development Limited and the President of the Philippines, Ferdinand Marcos begins construction on Marinduque Island and the Tapian Pit is commissioned.

1972

President Marcos declares Martial Law, which remains in force until 1986.

1975-1991

Mine tailings from the Tapian Pit are dumped at surface level in Calancan Bay via pipes from the mine site.

1981

Dumping into Calancan Bay is stopped by a government 'cease and desist' order due to environmental concerns and local protests. President Marcos orders resumption of dumping after a direct appeal from the President of Marcopper Mining Corporation.

1986

People Power peaceful revolution – Marcos flees the Philippines and Corazon C. Aquino becomes President.

April 1988

Dumping into Calancan Bay is stopped for one month after a government ruling that the company should find an alternative disposal site for tailings within three months. However after Marcopper cuts power to Marindugue Island, President Aguino orders resumption of mining. The Calancan Bay Rehabilitation Program is established and Marcopper is ordered to spend 30,000 pesos a day on rehabilitation.

1991

Maguila-Guila Creek is dammed with an earthen dam to hold back contaminated silt from waste rock at the San Antonio Pit

1992

The Tapian pit is used to dispose of tailings from the San Antonio Pit. A drainage tunnel at the base of the pit is plugged with cement which later fails in 1996.

6/12/1993

The Maguila-Guila Dam collapses. The flood of contaminated acidic and metal-enriched silt kills two children destroys homes displaces 70 families living beside the river contaminates agricultural land and kills livestock.33

24/3/1996

A drainage tunnel linking the Tapian pit to the Boac River bursts, causing over three million tonnes of tailings to flood a 30 kilometre area around the Boac River and out to sea.³⁴ The government suspends the mine's permit and post-Boac spill mitigation and assessment begins.

11/4/1996

Placer Dome President John Willson writes to Philippine President Fidel Ramos expressing deep regret for the accident, stating that "Placer Dome will provide full technical and financial support to Marcopper in implementation of compensation and rehabilitation programs".35

10/1996 The Placer Dome-commissioned Social Impact Assessment recommends that compensation is paid to Boac residents over ten years in decreasing amounts.

1997 Placer Dome divests from Marcopper,³⁶ leaving its subsidiary Placer Dome Technical Services (PDTS) to address clean-up of the Boac River system.

30/10/97

The Philippine Department of Environment and Natural Resources (DENR) rejects PDTS's first application for a permit to use Submarine Tailings Disposal (STD) for the remaining tailings in the Boac River.³⁷

March 1998

President Fidel Ramos declares a 'State of Calamity' for four villages - Camandugan, Lusok, Ipil and Botilao - along Calancan Bay due to the high incidence of heavy metal poisoning found in the children of the area.

Joseph Ejercito Estrada becomes President of the Philippines.

16/2/1999 DENR rejects the second application for an STD permit.

19/1/2001

In the final days of the Estrada regime, DENR secretary Antonio Cerilles signs an Environmental Compliance Certificate permitting Marcopper to use Submarine Tailings Disposal to clean up the Boac River. The Certificate is cancelled weeks later by the incoming Gloria Macapagal-Arroyo administration.38

Nov 2001

PDTS exits the Philippines, leaving Marcopper and F Holdings with funds for a clean up of the river. The work was to be overseen by consulting firm URS and clean up work carried out by Marcopper.

29/1/2002

In Canada, President Macapagal-Arroyo requests compensation to be provided to the peoples of Marinduque from Placer Dome.³⁹ President Arroyo commits 20 million pesos (approximately \$AUD463,000) from her Social Fund to fund an independent assessment of environmental and health concerns in all mining-affected areas of Marinduque.

31/1/2002

PDTS announces the company's decision to hand over responsibility for the remaining tailings clean up to Marcopper Mining Corporation.⁴⁰

May 2002

The Mining Ombudsman is approached by members of the Marinduque community at the Philippine National Conference on Mining in Baguio City to take up their case.

August 2002

Experts from a Canadian consulting firm commissioned by Placer Dome report that the Tapian Pit – which leaked in 1996 – and the Maguila-Guila siltation dam – which burst in 1993 – are in a state of disrepair and may collapse.41

14/9/2002

The Regional Trial Court of Marinduque hears plaintiffs from a civil case filed against Marcopper.42

8/11/2002 Oxfam Australia sends a copy of the Marinduque Preliminary Report to Jay Taylor at Placer Dome.

17/12/2002 KD Ferguson, Placer Dome Vice-President of Safety and Sustainability, writes to the Mining Ombudsman disputing findings in its Marinduque Preliminary Report.

09/5/2003

Marcopper informs the Environmental Guarantee Fund (EGF) Committee that administers compensation funds that the 2,378 outstanding claimants for damages incurred in 1997 and 1998 arising from the Boac river spill must cease legal claims as a condition of payment.

10/6/2003

Oxfam Australia responds to the Placer Dome letter of 17 December 2002 reaffirming the view that Placer Dome has not fulfilled its commitments and obligations to the communities of Marinduque Island.

25/6/2003

In a letter to the *Philippine Daily Inquirer*, DENR Mines and Geosciences chief Horacio Ramos states that: "presidential assistance will not absolve Placer Dome Inc. and Marcopper Mining Corp of their responsibility for funding the rehabilitation option that will be recommended by the US scientists as well as in compensating residents affected by the incident."

8/7/2003

Geochemist Dr Aloysius Baes leads a five-member team surveying the Mogpog River, observing hundreds of tonnes of tailings lodged in and along the River.

March 2004

The Oxfam Australia Mining Ombudsman conducts an investigation on Marindugue Island, interviewing local men, women and children from Mogpog, Boac and Calancan Bay, local government and church officials, health professionals and EGF representatives.

June 2004

The Oxfam Australia Mining Ombudsman returns to Marinduque Island with a film producer and a scientific team, focusing on the Mogpog River.

August 2004

The Oxfam Australia Mining Ombudsman sends the draft Marinduque Case Study to Placer Dome for comment.

August 2004

Placer Dome responds to the Mining Ombudsman stating the same position as in 17 December 2002 (see Oxfam Australia website for copy of this letter at www.oxfam.org.au/campaigns/mining)

Nov 2004

Results from the Oxfam Australia scientific team's research show that the Mogpog River is polluted as a result of the mine's continuing run-off and silt flows. Cadmium. copper, lead, manganese, nickel and sulfate levels present a potential hazard to human health. Cadmium, copper, lead, iron, zinc and sulfate levels present a potential significant threat to aquatic life. The waste rock dump is generating acid mine drainage into the river system

Figure 1 – The Marinduque Mining Ombudsman investigations

The Oxfam Australia Mining Ombudsman was initially approached about the Marinduque case during the Philippine National Conference on Mining in Baguio City, May 2002,¹⁶ by representatives of affected communities, the Marinduque Council for Environmental Concerns (MACEC) and the Boac Provincial Council of Marinduque Island. The Mining Ombudsman received a formal request to take up the case from MACEC later that year. Previous investigations are reported in the Mining Ombudsman 2002 and 2003 Annual Reports.¹¹

The Mining Ombudsman conducted an investigation in March 2004, interviewing local government officials, Barangay Councilors and Captains, health professionals and affected women, men and children. The Mining Ombudsman also met with the Mayors of Mogpog and Boac, the Chair of the Committee on Environment, and Dr Teodolfo J Rejano, municipal health officer in Santa Cruz, Marinduque.

The Mining Ombudsman met with affected women, men and children from the Barangays of Bocboc, Dulong Bayan, Malusak, Janagdong, Lupac, Balimbing, Hinapulan, San Isidro, Dating Bayan, and Botilao. Site visits were made to the Maguila-Guila Dam; the waste dump adjacent to the San Antonio Pit above the Mogpog River; along the length of the Boac River and to the tailings causeway in Calancan Bay.

In June 2004 the Mining Ombudsman returned with a film producer and the scientific team. Further indepth interviews were carried out with community members and Monsignor Senen Malapad, MACEC Chair and Parish Priest. Additional site visits were made to the Mogpog River mouth and Barangays Maligaya and Ipil.

The Mining Ombudsman's draft Case Investigation Report was sent to Placer Dome for comment in July 2004. On 6 August 2004, Placer Dome responded with background information and a copy of the letter first sent to the Mining Ombudsman in 17 December 2002. The company's viewpoints expressed in this letter have been incorporated where possible in this report. The letters and background information are available on the Oxfam Australia website at www.oxfam.org.au/campaigns/mining.

1.1 Mine operation, management and ownership

The Marcopper mine began as a partnership between Placer Development Limited, and the then Philippines President Ferdinand Marcos.⁸ From 1967 to 1986 Placer Development Limited owned 39.9 per cent of the mine and President Marcos owned 49 per cent through a company called Performance Investment Corporation.9 Marcos' involvement in Marcopper was kept secret from the public until his overthrow in 1986, when his shares were seized by the Presidential Commission on Good Government¹⁰ and then privatized in 1996. Placer Development Limited's 39.9 per cent ownership stayed with the newly incorporated Placer Dome from 1987 to 1997.

Numerous documents and reports argue that Placer Dome played an active role and managed Marcopper operations at the San Antonio and Tapian mines. Catherine Coumans, PhD states in Mining Watch Canada's 2002 Case Study that:

"As early as 1956, Placer Dome, then Placer Development Limited. became involved in an exploration project on the island of Marinduque in the Philippines, undertaking extensive geological mapping and drilling. In 1964, Marcopper Mining Corporation (Marcopper) was established. In 1969, Marcopper started

mining operations in Marindugue. Placer Development Ltd. Secured and guaranteed more than US \$40 million in loans for the new copper mining company from a consortium of American banks and 'Placer undertook the responsibility for open pit planning, design and construction ...'¹¹ Placer Dome always owned 39.9 per cent of the shares in Marcopper, the maximum amount of shares that could. until recently, be legally held by a foreign company in the Philippines. Placer Dome managed the two Marcopper mines on the island. All Presidents and Resident Managers of Marcopper, from 1969 until 1996 (when the mine was shut down) were seconded from Placer Dome. Marcopper was 'under design and management control' of Placer Development Ltd.¹² The management arrangement was established in agreements Placer Dome had with the banks whose loans Placer Dome guaranteed. Placer Dome guaranteed the loans for two successive Marcopper copper mines on the island. Placer Dome provided the technical expertise for the two mines. Placer Dome was the only mining company involved in Marcopper from 1964–1994."13

Evidence indicates that Placer Development Limited and Placer Dome supplied the mine's Resident Managers and Presidents. For example, following the 1996 Boac disaster (see section 4) on 11 April 1996,

a criminal complaint was filed against five Marcopper officials, including damage to property, falsification of public documents and violations of the Water Code, Pollution Law of 1976 and the Philippines Mining Law of 1995. The officials were President John Loney, Steve Reid, the resident manager and three senior managers.¹⁴ Since then John Loney has been employed as the Chair of a Placer Dome subsidiary Placer Dome Technical Services Limited, based out of Queensland, Australia.

Placer Development Limited and Placer Dome were the only mining companies involved in Marcopper, and the only party with the technical expertise and operational experience to manage such a large-scale mine.¹⁸ However, Placer Dome argues that it was only a minority shareholder, and that it was not the sole operator or provider of technical assistance. In letters to the Mining Ombudsman dated 5 August 2004 and 17 December 2002, Placer Dome advised:

"Placer Dome was not the owner or operator of the Marcopper Mine. The mine was, is and remains owned and operated by Marcopper Mining Corporation. Placer Dome and Placer Dome Technical Services (Philippines) Inc. [PDTS] do not and have not owned any interest whatsoever in F Holdings. Placer Dome has not been a shareholder in Marcopper Mining Corporation since 1997. The Presidents and Resident Managers of Marcopper

Figure 2: About Placer Dome

Placer Dome was established in 1987 in Vancouver. Canada by the merger of Placer Development Limited of Vancouver, and Domes Mines Limited and Campbell Red Lake Mines Limited of Toronto. It describes itself as the world's sixth largest gold mining company, with a market capitalisation of \$US8.2 billion. In 2004 its estimated production was 3.6 million ounces of gold and 400 million pounds of copper.⁴³ In 2003, the company reported that it employed 16,750 people worldwide (including sub-contractors, subsidies and joint ventures), with record gold production of 3.9 million ounces and net earnings of \$US229 million – the highest in the company's history⁴⁴ and a doubling of previous year's earnings.

With a head office in Vancouver, Placer Domes operates three gold mines in northern Ontario, Canada. In 2003, 15 per cent of Placer Dome's gold production was generated from these properties.⁴⁵

Placer Dome is listed on the Australian Stock Exchange. In 2004, 25 per cent of the company's gold production and revenues came from Australia; it has mines in the Eastern Goldfields region of Western Australia, in Tasmania and in Queensland. Placer Dome and its predecessors have had a presence in the Asia Pacific for 75 years.⁴⁶

were employees of Marcopper Mining Corporation. The President reported to a Board of Directors that was not controlled by Placer Dome. Over the years PDTS provided technical assistance to varying degrees to Marcopper Mining Corporation but was certainly not the sole provider of such assistance."

When interviewed, community members and local government representatives expressed anger and frustration at Placer Dome's assertions that it did not have management and operational control. These sentiments are typified by Congressman Hon. Edmundo O Reyes, Jr LAMP, Marinduque, in a speech

made under Parliamentary privilege on 18 March 1999:

"With its lofty international reputation to protect Placer Dome began its escape by transferring its shares to a company called BC Holdings, Ltd. Shortly after, it sold BC Holdings to Marcopper for a grand total of \$1.00. Therefore today it can proudly proclaim to the world that it does not own any part of Marcopper."

Local communities and their support organisations advised the Mining Ombudsman that they cannot ascertain who owns Marcopper and its main shareholder F Holdings.

"The best way to reduce the effects of operations on the environment is to disturb it as little as possible. Sustainable development initiatives that meet the needs of the present without compromising those of future generations play an important role in Placer Dome operations."

- Placer Dome website, 'Keeping it Clean: Minimising Environmental Impacts' ¹⁵

"Lots of people can't think of any possibility for such thing as sustainable mining in our island, first because of the geography, we not only believe, we know that it is beyond the carrying capacity of the island. We became the third most denuded province in the entire Philippines because of mining. Our internal waters, river, lakes have become polluted because of large scale mining for 30 years."

- Adeline Angeles, Chair of the Committee on Environment in the Marinduque provincial legislative body, June 2004.

1.2 The 'resource curse'

"Marcopper's only 'benefit' to the municipality are its real property tax and business permit payments amounting to only P30,000 annually." - Mike Magalang, secretary to Boac Mayor Roberto Madla.19

The mining industry often claims that mining brings economic development and poverty reduction to countries and regions where mines are located and presents itself as an agent of 'sustainable development'²⁰. Yet the so-called 'resource curse' means that many of the world's most resource-rich countries are its poorest economically. This may shed light on the Marcopper mine's history.

Until 1996 the Marcopper mine is reported to have produced approximately \$US1.7 billion in foreign exchange earnings for the Philippines.²¹ Yet, Rowil Aguillon states in 'Mining Debt: A Victims Point of View' (at http//:jubileesouth.org/journal/mining.htm):

'In 20 years of its operations in the Philippines, PDI [Placer Dome International] accumulated earnings estimated at US\$1 billion. Their contribution to the national reserves stands at US\$370 million. Taxes paid to the [local] government amounted to a mere US\$100,000 in 20 years. Social projects have been estimated at only US\$40, 000. Is these enough vis-à-vis the irreparable damage due to the people and environment of Marinduque?'

Questions also arise as to whether any of the funds benefited the Filipino people.

Ferdinand Marcos was elected President in 1965. His rule included nine years of martial law from 1972 and dictatorial control in 1973.22 He was overthrown in 1986 by a popular uprising led by Corazon Aquino backed by the military and the People Power Movement. Marcos' regime was characterized as undemocratic and brutal: Transparency International found him to have been one of the most corrupt leaders of the last 20 years, having allegedly embezzled \$US5 to \$US10 billion during his rule.23 Marcos was found guilty in the US of violating the human rights of 10,000 Filipinos, and faced charges of money laundering, graft and corruption when he died in 1989.24 Marcos held a 49 per cent ownership in Marcopper until 1986.

Few people on Marinduque, particularly those directly affected by the mine, appear to have received long-term benefits from the considerable mineral wealth generated on their island.

The Marcopper mine on Marinduque Island in the Philippines. Photo: Catherine Coumans/MiningWatch Canada

The mine employed approximately 800 people, including many locals; the company supplied and sold electricity to the province; and in 1996 it reportedly spent P30 million (approximately \$AUD 800,000) a year on local goods and services.²⁵ Yet, in the same year, the Philippine National Statistics Bureau ranked Marinduque as one of the country's poorest areas, with 71.9 per cent of the population (almost twice the national average) living below the poverty line.²⁶ In 2000 the Bureau included Marinduque in the Philippines' poorest 44 provinces, with 55.5 per cent of the population living in poverty.27

The Centre for Environmental Concerns - Philippines stated in a 1997 report:

"It cannot be denied that Marcopper. to some extent has contributed to the national economy. But as far as the local economy of Marinduque is concerned, its economic contribution remains questionable. For the simple reason, it has a deficit of PhP 63 million to the Calancan Bay Rehabilitation Fund and owes PhP 9 million in real property tax to the municipality of Sta. Cruz, while contributing only PhP 30 thousand as payments for business permits and real property tax annually to the municipality of Boac.28"

In 1998 the Santa Cruz Mayor reported that Marcopper's non-payment of taxes since 1996 had resulted in the company owing P100 million (\$AUD 2.4 million) to provincial and municipal governments on the island. The mine's operations also caused the Santa Cruz water supply to dry up by rupturing aquifers, leaving the town dealing with a water crisis.29

Many locals spoke to the Mining Ombudsman about having borne the mine's negative environmental and health impacts through contaminated rivers,

Figure 3: The 'resource curse'

Numerous studies have now shown that many of the world's resource rich countries are economically the poorest. Oil, gas and mining are important to the economies of more than 50 developing countries, between them home to 3.5 billion people. Yet over 2.5 billion of these people live on less than \$US2 per day. Moreover, 12 of the world's 25 most mineral-dependent states, and six of the world's most oil-dependent states, are classified by the World Bank as 'highly indebted poor countries' with the world's worst human development statistics.³⁰ Causes of the 'resource curse' include corruption, misappropriation and mismanagement of funds.³¹ Many of these states, and notably the Philippines, are listed in the Transparency International Corruption Index as some of the most corrupt.³²



loss of fishing and heavy metal poisoning. Some compensation has been paid to fishing communities affected by the Boac River disaster and some environmental rehabilitation has occurred. However Mogpog and Calancan Bay communities - who also suffered tailings spills and continual contamination of their land and water - have received little or nothing. They say that the mine has only brought pain and misery, worsening their living standards and destroying their livelihoods.

Seven year old Jason Peregrn with his mother Rosalina at Barangay – Dating Bayan, Calancan Bay, Rosalina fears Jason is suffering heavy metal poisoning from eating polluted fish from the 200 million tonnes of toxic mine tailings dumped into the Bay by Marcopper from 1975-1991 He is very small for his age and suffers from fatigue and skin sores. Photo: David Sproule/ Oxfam CAA

PATING BAYAN HEALTH CENTER

2. Calancan Bay

2.1 Mine waste dumping at sea

Between 1975 and 1991, Marcopper Mining Corporation dumped 200 million tonnes of mine tailings into the coastal waters – at surface level – of Calancan Bay. These were pumped through 14 kilometres of pipeline at 2.5 tonnes per second, 24 hours a day. A 1985 study by the Philippines National Pollution Control Commission found that 80 square kilometres of Calancan Bay's seabed was covered by mine waste, smothering corals and sea grass and causing an estimated P521 million (\$AUD 12.4 million) in damage.⁴⁹ These tailings also formed a seven-kilometre causeway off the bay's edge.

The Mining Ombudsman travelled onto the causeway in March and June 2004 and observed:

- Old pipes used to transport the tailings lying abandoned and rusting;
- Locals displaced by the dumping living on the causeway and others travelling onto it daily to fish;
- Young children and adults swimming and fishing off the causeway; and
- Fish farms stretching the length of the causeway.

It has been widely reported that Marcopper's original permit was for submerged ocean disposal off the deep coastal shelf next to Marinduque Island. However the submerged system failed and the company – ignoring its permit requirements – dumped the waste off Calancan Bay at surface level. The permit requirements were not enforced by the Marcos government.⁵⁰

2.2 Lack of consent and community protest

Men, women and children of Botilao Barangay and Calancan Bay interviewed by the Mining Ombudsman state that they did not give consent for the dumping, and that they vigorously and consistently protested against it through letters and petitions.⁵¹ Mrs Vilma Piguera, a schoolteacher from Botilao, told the Mining Ombudsman:

"... they [Calancan Bay residents] asked the assistance of Marcos [to stop dumping], but the problem was Marcos was a stockholder of Marcopper, in fact he owned 49 per cent of the stocks of Marcopper. That was 1975 ... during martial law, all powers were centred to the president, so he instructed all of them to please continue the dumping, continue the operation, without the consent of the people." Evidence discussed in section 2.3 suggests that as early as 1978 there were signs that dumping at Calancan Bay was causing environmental degradation. In a letter dated 20 September 1980, Fidel V. Ramos, then Director General of the Integrated National Police, wrote to the Chair of the National Pollution Control Commission (NPCC) about Calancan Bay:

"... the coral reefs are now in a state of deterioration and destruction. Also, the marine life which was once abundant within the areas is nowhere to be found." ⁵²

The NPCC reviewed the situation in 1981, leading to a 'cease and desist' order for dumping into Calancan Bay. This order was overruled by President Marcos⁵³ after a direct appeal from the mine's President, Garth Jones who was reported⁵⁴ to be seconded from Placer Dome:

"... certain people with a grudge against the company for supposed mistreatment ... published in the national press a series of slanderous articles about mercury and cadmium poisoning, sickness, destruction of coral, fish loss, etc ... We simply would like ... to be allowed to continue using our present method without constraints as the development of the San Antonio mineral deposit is being seriously delayed.

Pipes from the Marcopper mine pump mine tailings (waste) into Calancan Bay at surface level. Approximately 200 million tonnes of tailings were dumped forming a seven kilometre causeway into the Bay. Photo: Catherine Cournans/MiningWatch Canada



There is a risk of the whole project becoming unviable if the constraints continue. Your assistance in having the constraints lifted would be greatly appreciated." [emphasis added]⁵⁵

Following Marcos' overthrow in 1986, Marcopper again faced orders to stop surface dumping and find other disposal methods. A class action was also launched by local villagers against the dumping. On 18 April 1988, the Pollution Adjudication Board (PAB) issued a 'cease and desist' order when it was found the company had been operating without a valid permit since 10 February 1987.⁵⁶

Within eight days, Marcopper shut down operations and halted the supply of electricity it had been providing to Marinduque Island.⁵⁷ Company President John Dodge who was reported⁵⁸ to be seconded from Placer Dome, appealed directly to President Aquino to overrule the order⁵⁹ and the company threatened legal action against the PAB.⁶⁰ To the dismay of locals, President Aquino granted Marcopper the right to continue dumping.⁶¹

Dumping was eventually stopped in 1991, once the Marcopper Mining Corporation had developed the Tapian pit as an alternative location for its waste.



Figure 4: Vilma Piguera's story

"During the Marcopper mining corporation and the spewing of the mine tailings in Calancan Bay, we lost our means of livelihood. The fish catch in our bay went down ... sometimes we cannot even catch for our daily needs because of the mine tailings that cover our coral reefs. The people here experience hunger, some of our people here eat rice, our staple food for two meals.

"The Marcopper mine's tailings affected mostly our health. When we got shellfish and some fish that are caught in the sea, our people suffer stomach aches, nausea and vomiting. In 1974, I was pregnant and the fetus died in the womb at the age of seven months, and my health was not good at that time. Some of the children have rashes, some of them suffer from respiratory diseases, like my youngest daughter Janice. Even before she was one year old, she was affected by asthma and then it was only treated after she was confined at the Philippine general hospital in Manila..she was detoxified in 1997.

"In the 1990s the UPPGH (University of Philippines/Philippines General Hospital) team came here because we filed a suit case against Marcopper, my husband was the complainant ... we are asking the Department of Health to examine the people because we are experiencing so many illnesses here. My two sons suffered from inflamed knees and also my daughter ... also suffer from inflamed knees, aching limbs and respiratory diseases.

"My husband asked that our youngest daughter [Janice] be examined and it was found that she had high levels of mercury, lead and copper in her blood – that's why we were still able to know about her illness. I remember that ... the whole day she was lying on the floor, crying, vomiting and complaining of headache.

"We cannot get away from eating the fish that we catch in our bay because where will we get our fish? We cannot buy it from Lucena city because it is too far. We will spend many pesos to go to Lucena and so what we can get from our bay, we eat."

- Vilma Piguera, a schoolteacher from Botilao, Calancan Bay, interviewed in June 2004.

The medical certificate given to Janice's parents after her tests indicate that she had a level of 18 milligrams of mercury in her body. The acceptable level is 2 milligrams.⁴⁷

2.3 Environmental pollution

"The mine tailings are always carried by air when the north-east wind blows. Because of the north-east wind from October up to February, it blows from Calancan Bay to our place and then the dry mine tailings that are like flour ... are being blown by the wind when it is dry. Our atmosphere becomes bluish, when we are having strong winds ... we are being contaminated by the toxic waste of Marcopper." Francisca Portento, Botilao, 3 March 2004

Environmental impact assessments from 1975 to 1989 assessed the impact of Marcopper pumping tailings into Calancan Bay on corals, sea-grasses, marine biota and fishing. Only three years after the commencement of dumping, the 1978 assessment states:

"Changes since 1975 in the quality and the quantity of the flora and fauna of the study stations are quite apparent. These changes are reflected both in the reduction of the number of species as well as in the pollution frequencies of each species."62

A study conducted for Marcopper by Vancouver-based consultancy Rescan Environmental Services Ltd in 1981. following the NPCC cease and desist order, observed:

"In our opinion continuation of the present surface discharge with or without extension of the causeway presents a risk of extended coral impact (...) Accordingly, our opinion is that long-term continuation of the existing surface disposal system or even a shallow discharge system holds the risk of extended coral reef losses. and whatever consequences to fisheries which follow from reef damage."63

The heavy metals that appear to be leaching from the tailings dumped into Calancan Bay by Marcopper include lead, molvbdenum, arsenic, aluminium, cadmium, zinc, copper, selenium, manganese, silver and iron. Of these, arsenic, copper, selenium and silver exceed the chronic exposure levels recommended by the United States of America Environmental Protection Agency (EPA).⁶⁴ The Philippines Non-Communicable Disease Control Service has also found elevated levels of lead and cadmium in the soil and air of various sites in Calancan Bay, one soil sample showing over three times the EPA lead standard, and seven times the cadmium standard.65

Community women and men interviewed by the Mining Ombudsman claim that dust from the causeway's exposed tailings is often blown onto nearby hillsides, coating the soil, damaging crops and reducing yields. In March 2004 the Mining Ombudsman observed tailings being blown toward surrounding communities. Local men and women believe that airborne tailings cause health problems including respiratory illnesses. The Non-Communicable Disease Control Service found in March 2000 that lead in the air near the coastline in Botilao exceeded EPA standards and was almost double the standard near the Botilao schoolhouse.66

Communities say that causeway erosion is spreading tailings throughout Calancan Bay and beyond. In 1988 the Philippines Department of Environment and Natural Resources (DENR) set up the Calancan Bay Rehabilitation Program (CBRP), ordering Marcopper to pay P30,000 (approximately \$AUD 700) a day into a fund for the Bay's rehabilitation.

Part of this fund was used to plant mangroves and thorn trees on the causeway. Sea grass has also been planted, with plastic 'grass' reportedly used in the 1990s where natural grass would not grow. Cement reefs have been established to try to stabilize erosion from the causeway,⁶⁷ but locals report this does not appear to have stopped erosion occurring. In 1991 Marcopper unilaterally stopped payments when it stopped dumping in Calancan Bay, even though the impacts are ongoing.

A 1997 review of the CBRP found that '... the CBRP has not been able to introduce effective measures to mitigate the threat of heavy metal contamination in Calancan Bay.' 68

2.4 Heavy metals poisoning, ill health and deaths

"The impact of heavy metal contamination to the local communities can be better appreciated when one considers that these communities are exposed to this environment everyday, as well as consume these contaminated fish daily. There is thus a real threat of accumulation and magnification of these heavy metals in the human body. CBRP has not been able to mitigate the health-related negative impacts of the dumping of mine tailings in the bay. (...) Further studies are also needed to identify the best way of mitigating the heavy metal contamination in the area. For instance, some specific fish species may be banned from capture and/or consumption, or the entire Calancan Bay may be closed from fishing." 69

"Imagine the loads carried by dump trucks, parked bumper to bumper and stretching three times around the Earth. That is the volume of toxic, groundup, waste rock piped into Calancan Bay between 1975 and 1991. An estimated 200 million tones of mine tailings have smothered coral reefs and sea grasses across 80 square kilometers of seabed, poisoned fish and created a causeway seven kilometers long that is gradually being blown ashore by the wind."

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Above left: Fourth grade Teacher, Vilma Piguera age 61 in her home at Botilaq Santa Cruz has been fighting for justice at Calancan Bay for 30 years. Photo: David Sproule/Oxfam CAA

Right: Unloading a fish catch from polluted waters at Ipil Santa Cruz. Photo: David Sproule/ Oxfam CAA Calancan Bay residents interviewed were primarily concerned that the tailings have caused, and continue to cause, adverse health effects and loss of life. Despite these claims and evidence outlined in this report, Placer Dome maintains that no damage has been caused at Calancan Bay.70

A review conducted by a research team led by Dr. Francisco Felizar to assess studies undertaken by the CBRP from 1988, stated that 'appreciable' levels of heavy metals were present in Calancan Bay, particularly in the sediments. Also that levels of cadmium, copper, zinc, lead, and/or mercury in some fish and marine species were high and therefore may pose some threat to the health of locals who constantly feed on these fishes and marine life.'71

The review cautioned:

"For those depending on the causeway for their daily food, their exposure may be likened to chronic exposure to "sublethal" concentrations. Most of them have been exposed when they were still in the womb and up to now they are still consuming fishery products with elevated levels of heavy metals."⁷²

In 1997, medical studies – by the Philippines Department of Health and by the University of the Philippines with a joint medical team from the Department of Health - indicated that tailings in the bay may have been slowly poisoning the food source of local people and the people themselves.⁷³ The Department of Health found that the Barangays along Calancan Bay have a much higher incidence of heavy metal blood-related diseases than inland villages in the Santa Cruz municipality.⁷⁴ The joint Department of Health/University of the Philippines study found that all 59 children tested from the most affected villages had

unacceptably high levels of heavy metals in their blood.⁷⁵ Following these findings, in March 1998, Philippines President Fidel Ramos, declared a 'State of Calamity' for Ipic, Kamandungan and Botilao villages.

Cases of children needing treatment for copper, mercury and cadmium toxicity have also been documented by the Santa Cruz District Hospital.⁷⁶ Children and young people from three to 19 have been hospitalised for two-month periods to detoxify their bodies of lead.⁷⁷ The Mining Ombudsman was given documents by Dr TJ Rejano, a municipal health worker from Santa Cruz municipality, showing that 19 children were treated in 1999 alone. Following a health and environmental assessment, the Non-Communicable Disease Control Service recommended on 15 March 2000 that:

"Thirty children with elevated blood lead, methemoglobin and low hemoglobin values have been recommended by the UP-NPCIS clinical toxicologists to undergo Nerve Conduction Velocity (NCV) testing

"All my childhood, my father was a fisherman, we were brought up by our parents. We were able to study at elementary, high school and up to college because of fishing, because my father was a very good fisherman. And then, from 1975 with Marcopper mining corporation dumping mine tailings in our bay ... everyday there is less, less, less, less, less, less, and our fishermen go far, into the open sea to fish, so that we can sustain our lives."

- Francisca Portento, Botilao, 3 March 2004

Joel ,8, and Edilon ,6, Frondoza at Botilao, Calancan Bay where they fear that the fish that they eat is contaminated with heavy metals from mine waste dumped into the Bay. Photo: David Sproule/OxfamAUS



and repeat determination of blood lead, complete blood count and methemoglobin (in 1 subject) ... Seventy four children (70 from Sta. Cruz and 4 from Mogpog) and one adult from Sta. Cruz whose blood lead levels were above acceptable limits have been recommended to undergo micronutrient supplementation with calcium, iron and ascorbic acid."⁷⁸

For Calancan Bay residents Marvic Quindoza (age 14), Roden Reynoso (age 8) and Ambeth Relloque (age 19), such treatment was too late. Marvic Quindoza died from heavy metal poisoning in 1998. Roden Reynoso, from Barangay Botilao died in 2003 from arsenic poisoning. His doctor, Philip Cruz MD, diagnosed him with severe mental retardation caused by lead and arsenic poisoning that caused skin lesions. These caused skin breaks that eventually led to malformation and secondary bacterial infections that "ate up his fingers." 79 Locals told the Mining Ombudsman that Roden always swam in Calancan Bay. They blame Marcopper and Placer Dome for his death.

Ambeth Relloque died in October 2004 with symptoms common to the reported other deaths. Villagers claim that Ambeth died from eating contaminated fish and other seafood from the bay. According to Jobeth Molato of the Marinduquenos for the Interest of the Nation and the Environment (MINE), the Relloque household lives four kilometres from the bay and relies on farming and fishing. Ambeth's father Tido is also reportedly emaciated from ingesting poisons.⁸⁰

Wilson Manuba, a 31-year-old fisherman from San Isidro, told the Mining Ombudsman that he believes constant exposure to arsenic in Calancan Bay is to blame for the severe infection and tumour in his leg which has meant it had to be amputated below the knee. Wilson's foot first became infected through shellfish cuts. Doctors have told Wilson that high blood levels of arsenic meant his immune system was ill-equipped to fight the infection. As he fishes every day, his cuts are continually re-infected with polluted water. Wilson told the Mining Ombudsman that he has been sick since he was seven years old and can only afford treatment thanks to charitable donations.

Wilson's father Pedro who is 54 says he has been sick with heavy metal poisoning – particularly mercury and arsenic – for almost 15 years, due to the contaminants in Calancan Bay. Like his son, he has tumors in his feet and various infections.⁸¹



Wilson and Pedro Munaba. Wilson is a fisherman who has lost the lower half of his leg and Pedro is his father who has infections on both his feet. Their doctor attributes the amputation and infections to arsenic poisoning and cutting their feet on waste-contaminated rocks and coral in Calancan Bay. Photo: Ingrid Macdonald/OxfamAUS

"The mining corporation, they dump their wastes here and that results in the infection of our wounds, because we are fishermen. I was infected by the tailings for almost 15 years, and now I cannot work. I was also studied by doctors from Philippine General Hospital, and according to the doctors, we are the victims of toxic waste materials coming from the Calancan Bay."

Wilson continues to fish despite evidence that his occupation is killing him. His remaining foot is infected with cuts that are not healing – he may end up losing it as well. He and Pedro want the company to rehabilitate Calancan Bay and compensate its residents, so they can support their families without having to rely on fishing. Wilson says:

"Marcopper should rehabilitate the sea, provide health assistance and compensation for the damages we have sustained ... if somebody will only give me funds to start a business on my own, I will not start fishing again."⁸³

Wilson and Pedro's condition was verified in two interviews with Dr Rejano, a medical health professional from Santa Cruz, Marinduque, who provided the Mining Ombudsman with copies of medical records stating that the men have arsenic poisoning.

Dr Rejano advised that since 1993 he has observed many health problems such as lead poisoning and skin rashes unique to residents of Calancan Bay, and generally not found elsewhere in Santa Cruz. Dr Rejano rules out other causal factors previously-cited such as the use of leaded petrol or pesticides by residents. He told the Mining Ombudsman that the affected locals live no differently to others in the municipality without the same symptoms, the difference being that they live in the four villages closest to the causeway:

"..there are four baranguays that have been most affected by the heavy metal toxicity that was examined by the UPGH in 1997, and these are Camandugan, Lusok, Ipil and Botaio ... there is a high level metal toxicity compared to the rest of the baranguays in Santa Cruz ... We are questioning the possibility of the toxicity of the tailings that were deposited here in 1975 to 1991."⁸⁴

Dr Rejano stated that after detoxification, the children who moved to Manila maintained normal blood-lead levels, whilst those remaining in Calancan Bay again built up high levels, indicating that the environment is making the children ill. Dr Rejano believes Marcopper should take responsibility for residents' health problems:

"They [Marcopper] have to compensate or give priority to those people along Calancan Bay. They should have a socalled mini hospital there, complete with a laboratory, particularly to check the presence of these heavy metals in the children, that will monitor the children and the residents along this area. So whenever they find that there is really a high level [of heavy metals in the blood], then Marcopper will be the one responsible for giving the treatment like the detoxification."⁸⁵

2.5 Loss of livelihood

All Calancan Bay residents interviewed claimed that marine life in the bay has been devastated by the dumping:

"Before, when Marcopper Mining corporation was not operating, the livelihoods and income were much better, plus we could sustain our everyday needs and we could buy whatever we wanted, because there was plenty of catch that we could sell in the market ... Life before Marcopper was plentiful but when Marcopper started to dump mine tailings, and continued to dump, our life became hard ... sometimes we eat boiled bananas, boiled fruit bats, so that we can augment our food to the next meal. We only eat rice at lunch time ... so that we can have rice throughout the week." Calancan Bay resident. Botilao 2004.

They say fishermen now have to travel further out to sea to fish, and stay longer to catch the same amount:

"It is very hard. The fishermen can go out into the sea all day, but sometimes the catch is only two kilos, one kilo, how can we sustain our life? We have sons and daughters in the high school. We have sons and daughters in college and ... we have no means to provide for our students, so we alternate our education, the eldest will go to college, the second one will help the father, and this is the only way we can sustain our life." Calancan Bay resident, 2004. "During the year 1993, December 6th, there was a flash flood, caused by Marcopper Mining Corporation. There were many damages, sustained by the people of Mogpog. The river was destroyed – it was contaminated and it caused death for children, animals and all living things that can be caught at the river. It also affects the constituents that cross the river, they sustain skin allergies."

- Barangay Captain Artoro Lines, Barangay Magapua, March 2004.

Studies have substantiated the observations of local Calancan Bay fishermen, including an Environmental Impact Assessment conducted in 1982-83 which states:

"The primary impact area stations (all within Calancan Bay) showed the least species diversity, fish abundance, and catch per unit effort (gill nets) compared to secondary and least affected area stations (outside Calancan Bay). The higher magnitude and bigger aerial extent of tailings deposition on marine benthic organisms (corals and plants) have destroyed fish habitats in the bay. Turbid waters in the bay could not be tolerated by many fish species except by a few, now dominant species in the East and West Calancan Bay."⁸⁶

The local fishermen are also very concerned that fish may contain heavy metals. As discussed above in section 2.4, the review conducted by Dr. Fellizar found high levels of heavy metals in some fish and marine species; medical studies have confirmed heavy metal poisoning in some adults and children; and children have died from lead poisoning. As a result, the Calancan Bay communities find it difficult to sell their fish to people living outside the Bay and find it difficult to make a livelihood.

It is not surprising that Dr. Fellizar's review recommended that " ... owing to the questionable quality of water and marine resources in Calancan Bay, alternative livelihoods must be land-based, depending only very minimally, if at all, on Calancan Bay waters."⁸⁷ The review also concluded that the tailings have had negative socioeconomic impacts on the communities,⁸⁸ which will continue unless compensation and rehabilitation is pursued at Calancan Bay.

Placer Dome itself carried out a study in 1996 to specifically assess the impact of tailings deposition on marine areas in the Boac region following the Boac river disaster discussed in section 4. The study acknowledged the loss of important fish species through turbidity (water cloudiness) caused by tailings⁸⁹ and smothering of corals and seagrasses.⁹⁰ These conclusions could also be applied to the impacts of the tailings dumping that occurred at Calancan Bay.

2.6 Current legal action

On 29 July 2004, 105 of those affected by the Calancan Bay dumping filed a P50 billion class action against Marcopper and Placer Dome Inc in the Regional Trial Court of Marinduque through their lawyer, Ronaldo Gutierrez, Executive Director of Philippines NGO Upholding Life and Nature (ULAN). A press release at the time stated:

"They called for justice for those who have fallen sick, those who have died and have lost their livelihoods due to the companies' mining operations. Members of the eight (8) barangays affected bore placards with the names of family members who have died after having been afflicted with various diseases brought about by their exposure to the toxic mine tailings dumped in Calancan Bay." ⁹¹

The action is still proceeding.

2.7 Rehabilitation, compensation and acknowledging responsibility

Calancan Bay communities told the Mining Ombudsman that they have not received compensation for losses incurred through the devastation of their bay. There has been inadequate rehabilitation despite a 1988 Philippines Government order for Marcopper to put P30,000 (approximately \$AUD 700) a day into the bay's rehabilitation; an order it fulfilled only from 1988 until mid-1991, when it began putting its wastes in the disused Tapian Pit instead.⁹²

In 1996, Marcopper was reported to have given assistance to support the detoxification of some children found to have elevated blood levels of heavy metals. However, communities report that the company has not paid for any health tests or treatment since, nor provided compensation for the loss of livelihoods.

Placer Dome has disputed that there are adverse health and environmental impacts at Calancan Bay, and that it has any responsibility for any such impacts. In 1989, Placer Dome Corporate Vice President John Hick said: "Marcopper does not believe it has polluted Calancan Bay in a legal sense."93 In 1997, a company spokesperson wrote a letter to supporters of Calancan Bay villagers, stating: "Placer Dome rejects allegations that it is also responsible for alleged damage to fishing in Calancan Bay."94 At the Placer Dome's 1997 annual general meeting, CEO John Wilson responded to a question about Calancan Bay by saying: "Placer does not concede there is damage in the bay."95

In a letter to the Mining Ombudsman dated 17 December 2002, the company denies that it now has any responsibility for clean up and compensation payments at Calancan Bay:

"As to the demands surrounding areas outside of the Boac River spill, these issues should properly be directed to Marcopper Mining Corporation ... under Philippine law, no foreign investor is permitted to own a controlling interest in Philippine mineral assets. Placer Dome did not manage or control the Marcopper mine."





3. Mogpog

3.1 The Mogpog River Dam disaster and lack of corporate responsibility

The Maguila-Guila creek, part of the headwaters of the Mogpog River, was dammed with an earth-filled dam in 1991 to hold back toxic silt from a waste rock dump created in the Tapian Pit. Its construction enabled Marcopper to stop dumping tailings into Calancan Bay. The Mogpog community told the Mining Ombudsman that they had been concerned that the dam would cause pollution and increase flooding, and had protested against the dam's construction with petitions and resolutions sent to DENR and President Corazon Aquino.96

"On 6 December 1993, due to pressure from heavy siltation at the dam wall and heavy rains, the Mogpog River Dam collapsed, with catastrophic consequences. Two children were killed in the flood and many houses were destroyed. The environment was devastated along the length of the Mogpog River as a wall of toxic silt and water swept down the River ... and in Mogpog town the muddy water rose up to the second floor of many houses." 97

Neither Marcopper nor Placer Dome has accepted responsibility for the 1993 collapse of the Maguila-Guila dam nor the ensuing deaths and destruction. At the time, Resident Manager Steve Reid cited "unusual rainfall due to a typhoon" as the culprit.⁹⁸ Locals report that the company claims that the typhoon was an "act of God" or "force majure" and so it has no legal responsibility for the collapse or to provide compensation and rehabilitation. "Force majure" is a legal concept used to avoid liability for harm resulting from unforeseen acts of natural destruction. Yet, the Philippines is hit by approximately ten typhoons every year during its typhoon season,⁹⁹ and it is common engineering practice in tropical regions to design tailings dams with a safety margin enabling them to withstand typhoons. Locals also told the Mining Ombudsman that the typhoon at fault was typical for any rainy season on Marinduque Island, and could not be described as "unforeseen."

After the disaster, Marcopper is reported to have used bulldozers to deepen part of the river channel, and built a cement dike to provide partial protection to the most exposed barangay, Bocboc.

Left: A local man living downstream along the Mogpog River points to mine tailings that have covered his fields since the Maguila-guila dam collapse in 1993. Photo: Ingrid Macdonald/OxfamAUS



At work in Mogpog River gathering mine waste to use as house bricks, Remedios Pacheco, age 67, with John Kenneth Malagoyo age 12 at Bocboc. Photo: David Sproule/ OxfamAUS

Nearby women, men and children expressed concern to the Mining Ombudsman that the dike is too small, and that it will not provide any protection if the dam bursts again.

The current Mayor of Mogpog and the women and men living along the Mogpog River also complained to the Mining Ombudsman that they did not receive compensation for the negative impacts that they suffered as a result of the disaster. This is substantiated by Catherine Coumans PhD in an article for the Philippines Centre for Investigative Journalism which states:

"[Marcopper] decided it did not have to pay out any compensation to the people who were still in shock and trying to deal with their losses. But in the wake of a local public outcry, Marcopper finally coursed a 'grant' of P3 million (\$AUD 713,000) through Mayor Ruben Tan, although it was careful to label the amount as 'community' assistance', not compensation. Tan was left to figure out for himself which families were worthy of the money and those who were deemed to received a maximum of P1,000 (\$AUD 24) each."100

3.2 Danger of another dam collapse

The Maquila-Guila Dam is now in a state of disrepair. In a letter dated 23 August 2001 – leaked to Congressman Reyes - Canadian engineering firm Klohn Crippen highlighted findings from its 14 June report commissioned by Placer Dome, which found that five of the Marcopper mine structures in need of immediate repair. The report highlighted that the Tapian Pit elevation 310 tunnel and Maguila-Guila Dam are "in imminent danger to life and property":101

"Given the seriousness of the potential consequences, it is strongly recommended that the safety issues related to these two structures [Maguila-Guila Dam and Tapian Pit 310 tunnel] be addressed immediately by Marcopper."102

Klohn Crippen also concluded that the reconstructed Maguila-Guila Dam – which is still holding back millions of tonnes of waste within the Tapian pit - does not meet the design criteria for the Probable Maximum Flood (PMF). This means that the dam cannot cope with floods greater than 10 percent of the PMF,¹⁰³ equivalent to a one in two year (1:2) storm event.¹⁰⁴



Figure 5: Marites Tagle's story

"Between 4 to 5 in the morning, that was when the water rose. I turned on the radio and it said 'the time now is 5 o'clock' just a little bit later it was like we were moving. Our house was moving then it fell. The nails were coming out of the sides of the house. We went with the flood.

"My children didn't even call 'Mama', we just fell. We were suddenly treading water I thought I was just turning around then I realised we were being washed away. I thought my children were gone because from the strength of the flood, no one could survive it and it was still dark. Then there was a bit of wind and rain. My end of my finger happened to hold on to the banana leaves that was stuck to the coconut tree. So I grabbed and hugged it. Then I climbed to the top of the tree because if I didn't climb the water would be past my head. When I was hugging the tree the water was up to my neck.

"Then my children were gone and I couldn't look for them because the water was still high. I thought it was the end of the world. Around 9 o'clock the water was going down.

"On the first day we couldn't find them then on the next day there was a lot of mud and up rooted trees. We asked around if anyone had seen them. Then we went back to where they found me. My first child was found by her dad. Her leg was up and she was holding on to the leg of the table. And the table was upside down. She probably grabbed the table while we were still in the house. And she was covered in mud -Christine. Then my other daughter, Josephine, was found four days later and her body was already smelling. I only have one photo of her – of her body when they found her." – Marites Tagle, Mogpog, June 2004.

Mrs Tagle told the Mining Ombudsman that she received only 1000 pesos (approximately \$AUD 23) for each daughter, which barely covered the costs of their funerals. She also told of how all of the families living along the Mogpog River lost everything - their houses, their farmland, their crops and their livestock – yet had received no compensation or assistance to rebuild, and there had been no rehabilitation of their land. Mrs Tagle lives in fear that the dam will collapse again and kill more of her children.

Two of Marites Tagle's daughters were killed in the Maguila-Guila dam collapse. Photo: Ingrid Macdonald/OxfamAUS

Yet, it is common engineering practice that dams representing significant or high hazards be designed to withstand a 1:100 year flood (for small dams) to the full PMF, which is usually around five times greater than the 1:100 year flood for large dams.¹⁰⁵

Communities told the Mining Ombudsman that neither Marcopper nor Placer Dome have made adequate repairs to the dam for many years. They say that the dam's state of disrepair means heavy metals are polluting the river, and that they live with frequent floods and fear of another collapse. They describe various ad hoc, low-budget methods used by Marcopper to control flooding, all of which have failed. For example, community leaders showed the Mining Ombudsman remains of a flood control dam built in 1996, which they claim was washed away by the first flood following its construction.¹⁰⁶ It was built from metal drums filled with sand and gravel. covered by a thin layer of cement.¹⁰⁷ They say that Marcopper used other unorthodox methods to prevent the silt from flowing into the Mogpog River, such as using old truck tyres to block the dam, but that these have been washed away during floods.

The Mogpog Town Council has passed numerous resolutions about the inadequacy of the dam and the risks posed by its potential collapse. In one such resolution in 1998, the Council demanded:

"complete removal of the Maguila-Guila dam, the clean up of the waste dump at the top of the river, and the total rehabilitation of the Mogpog River and watershed."

The Council has consistently restated these demands, and presented the Mining

Ombudsman with numerous resolutions sent to Marcopper and Placer Dome. Mogpog Mayor the Hon. Jonathan M. Garcia told the Mining Ombudsman:

"Ever since the dam collapse and the stopping of the operation, the company has not been maintaining the dam, so it is not functioning anymore for this purpose and it continues to threaten the lives of the people living in the lowlands ... Since 1993 the people living in the local area are afraid of another tragedy and we blame the presence of the structure." – Hon. Jonathan M. Garcia, Mogpog Town Hall, March 2004.

On 11 October 2001, the Department of Environment and Natural Resources (DENR) issued an order to Placer Dome CEO Jay Taylor, Ian Lewis of subsidiary Placer Dome Technical Services (PDTS) and the new owners of Marcopper to 'conduct of remedial works on the Tapian Pit Elevation 310 Tunnel and Maguila-guila Siltation Dam subject to the conditions setout in the attached Schedule 1.' Placer Dome and Marcopper were required to start remedial action of the order within fifteen days, or face appropriate civil, administrative and criminal action if an 'untoward incident' occurred. Yet in December 2001, without warning, PDTS closed its offices in Marinduque and Manila and pulled out of the Philippines.¹⁰⁸

Placer Dome and PDTS advised the DENR that these issues must be addressed by Marcopper - as mine owner and operator - and requested that Placer Dome and PDTS be removed from the subject remediation order. Placer Dome advised the Mining Ombudsman on 5 August 2004:

"There are on-going maintenance issues on the site that are the responsibility of the mine's owner Marcopper. The engineering firm Klohn Crippen contracted with Marcopper to conduct a review of its impoundment systems and other structures on the mine property, unrelated to the river clean-up activities. Among other matters, the Engineering Study Agreement provided that PDTS would not be responsible for addressing any matters arising from the agreement and that the MGB would ensure that the results of the study were publicly disseminated."

To date, the Mining Ombudsman is not aware of any response from the DENR to this request.

3.3 Pollution of the Mogpog River

"Until now, the river is still causing allergies ... When it rains it returns to its natural structure, together with some waste materials, that continue to contaminate the river. We consider the river as a dead river. The water cannot be used by animals for drinking and the mud coming from the Maguila-Guila dam that was carried by flash flood, can no longer be used for farming ... it tremendously affects farmers and their crops." - Artoro Lines, Magapua, March 2004.

The Maguila-Guila Dam's disrepair means that polluted water from the tailings dump directly flows into the Mogpog River.

Following the 1993 disaster, Marcopper re-engineered the dam by blowing an overflow hole in the dam wall. The overflow was supposed to relieve pressure on the dam during periods of unusually heavy rainfall by enabling water to flow from the Dam into the Maguila-Guila creek. However, the Mining Ombudsman observed that sediment had built up to

such a high level behind the dam that the overflow is now channeling water and sediment continuously into the river system. The Mining Ombudsman observed that below the dam the river was bright red and orange, and the siltation trap - intended to stop silt running downstream - was rusted and broken.

In 2000, a United States Geological Service report found continued sedimentation and acid rock drainage into the river, and that



at that stage locals still used the river for bathing, swimming, washing clothes and for watering their farms and farm animals.¹⁰⁹

In 2002, a study conducted by the Institute for Environmental Conservation and Research (INECAR) of Ateneo de Naga University, found that Bocboc residents (the village closest to the dam) were now trying to avoid using the river.110

Sonny-boy Mataya from Bocboc, Mogpog points to the huge quantities of mine waste and rusted pipes at the headwaters of the Mogpog River. The Maquila-quila dam failed in 1993 and the locals fear that this could happen again given the dam's state of disrepair. Photo: Ingrid Macdonald/OxfamAUS

The study noted water flowing freely from the dam into the Mogpog River and that it was a reddish colour, which "possibly indicates acid mine drainage." They concluded that:

"Untreated contaminated water from the tailings impounded in the Maguila-Guila siltation dam cause toxic heavy metals to be carried downstream through the Mogpog River".111

INECAR determined:

"That the immediate vicinity of the river has been contaminated with heavy metals through the polluted Mogpog River.

Presumably the contaminants were carried by the river water originating from the Maguila-Guila siltation dam and deposited on the soil along the banks of the Mogpog River. Heavy metal contamination affects plant and animal organisms, which can reach man through the food chain".112

In 2003, periodic testing by DENR for water characteristics and heavy metals found that some sections of the Mogpog River exceeded acceptable standards for lead, cadmium and copper. Dissolved oxygen - essential for the survival of aquatic life – was also found to be below the acceptable standard.¹¹³

Sores on the feet of Eu Frocina Lambon, a food vendor who walks regularly through the polluted Mogpog River. Photo: David Sproule/OxfamAUS



Figure 6: Acid mine drainage

Acid mine drainage (AMD) generates sulfuric acid that releases heavy metals from ores and mine tailings. Sulphides in the waste rock and tailings oxidize when they are exposed to air and then produce acidic runoff when they are exposed to water. This acid drainage commonly leaches out environmentally toxic levels of heavy metals that are naturally occurring in the mine waste (mercury, lead, arsenic, copper, etc). Both acid and metals associated with Acid Mine Drainage are considered environmentally toxic. The metals are absorbed by clay or taken directly by living organisms through direct ingestion by food or water. Detrimental effects of heavy metals are various diseases ranging from skin to lung diseases and most seriously, a variety of cancers.

Once Acid Mine Drainage has started, it cannot be stopped. The process can continue for thousands of years.

From Mining in Canada: The Bigger Picture: Presentation for a Philippine Delegation to Ottawa, Canada - October 29, 2003 - Catherine Coumans PhD, MiningWatch Canada; and The Institute for Environmental Conservation and Research, Ateneo de Naga University, Report on the Initial Visit Conducted by INECAR in Mogpog River Affected by Marcopper Mining, Dr. Emelina G. Regis, 4 September 2002.

3.4 New scientific study supports communities' claims

In June 2004, a combined research team from Oxfam Australia and the Institute for Environmental Conservation and Research at Ateneo de Naga City University conducted water, soil and plant sampling along the length of the Mogpog River. The aim was to determine the degree of heavy metals in the soil, water and plants and to obtain data relating to acidity and dissolved oxygen in the water. A photographic study was also completed. Samples were taken to the analytical laboratory of the University of the Philippines Natural Science Research Institute in Manila. The sampling and preservation procedures followed those recommended in Australian scientific guidelines.¹¹⁴ The study found:

- Clear evidence that the Mogpog River is polluted as a result of continuing mine run-off and silt flows;
- Without action, pollution will continue indefinitely due to ongoing erosion of hundreds of thousands of tonnes of mine waste rock in the upper river catchment area;
- Levels of cadmium, copper, lead, manganese, nickel and sulfate present a potential hazard to human health;
- Levels of cadmium, copper, iron, zinc and sulfate present a significant potential threat to aquatic life;
- Acid and metal levels are sufficiently high to kill most aquatic animals and at various locations present a potential hazard to human health:
- The waste rock dump of the San Antonio Pit is generating acid mine drainage into the river system (pH levels were less than 3 near dam wall; healthy rivers have a pH of 6 to 8); and
- Near the dam wall, the river's colour is deep red, and no aquatic life is visible.

The full report of this investigation, written by Dr Alan Tingay – who has over 30 years' experience working as an environmental consultant to industry and government – is available at www.oxfam.org.au/campaigns/mining



Locals use a handmade bridge to cross the Mogpog River at Malusak. Photo: David Sproule/OxfamAUS

3.5 On-going impacts of pollution on local people

"Children who always cross the river always sustained infection, itchiness, skin disease ... the doctor said it was brought on by their environment. The sickness always occurs when they are brought up in that environment." - Rosie Dina and Nanita Hakeka, Bocboc, Marinduque, 3 March 2004.

The women, men and children living along the Mogpog claim that crossing the river causes skin irritation and disease. Upstream communities close to the dam say they and their children must cross the river every day to collect copra and attend school. They only have one permanent bridge, with semi-permanent options regularly destroyed by flooding. The Mining Ombudsman interviewed many people with what looked like burns on their feet and ankles, and complaints of illnesses. All blamed river pollution. In October 1999 a team from the Department of Health and the University of the Philippines' National Poisons Control and Information Service undertook a health and environmental assessment of communities in Santa Cruz and Mogpog, finding all pediatric subjects from Mogpog showing elevated lead levels.¹¹⁵

The toxic silt and waste that flowed down-river in the 1993 disaster remains where it settled. Some people interviewed estimate that waste in some areas is as high as a coconut tree – approximately five to seven metres. The only remedial action taken to remove the waste was limited dredging in the upper reaches of the river immediately after the disaster. Many communities' lands, particularly those living downstream, remain covered by silt, unusable for rice and other crops.

Many interviewed also claimed that since 1993 the Mogpog River and surrounding areas are being further contaminated by flooding, and that farmers have trouble growing their crops near the river. They say that the river itself – formerly a source of water, fish and other food - is unusable. Locals complain of regular fish kills and the disappearance of the Bagtok carp, a species unique to the Mogpog. They also complain that the coconuts have dried up and they no longer have fresh water for washing clothes.

"After ten years the Mogpog river is still in bad condition, almost dead. So we no longer use the river water for even washing to take a bath, or planting, or irrigation ... I remember the Europe Soil Water

Management say their study that the Mogpog River is too acidic and salient and not even suitable for irrigation processes." - Bocboc resident, Mogpog, March 2004

"They used to fetch water from upstream. The women used to wash the clothes [in the Mogpog River], now ... they travel half a kilometre to wash clothes. We used to catch fish, shrimp, and other living things that we can eat. So we didn't need to go to market because you can get some fish from the river. But after Marcopper you cannot find any living things in that river." – Mogpog resident, June 2004

The Mining Ombudsman discovered in 2004 that tailings from the 1993 disaster and ongoing sedimentation build-up on the Mogpog's banks are being used by local contractors to make house bricks. The Mining Ombudsman observed women and children using their bare hands to collect tailings for the contractors.

Given the scientific findings discussed above, the use of tailings and sedimentation along the Mogpog River to make house bricks is of concern for those who will live in the houses, as is the exposure to heavy metals and acidic water by women and children engaged in this activity.

al Concerns (MACEC) shows bags full of co eft to waste away on the banks of the Boac Rive

4. Boac

4.1 The 1996 disaster

"... it was agreed that the old Mt. Tapian open-cut mine site (Tapian Pit) would be used to receive mine tailings from the San Antonio operations on a temporary basis. This disposal method was not discussed in the Environmental Impact Assessment. In spite of the unconventional use of the Tapian Pit as a containment system, no environmental risk assessment and management were carried out."116

On 24 March 1996, an estimated two to three million cubic metres of tailings began pouring from the Tapian Pit into the Makulapnit and Boac River system. Over five days the discharge rate continued at five to ten cubic metres per second. The tailings had begun to leak in August 1995 and did not cease until 11 June 1996.¹¹⁷ Philippines President Fidel Ramos issued Proclamation No. 778 in 1996 declaring a 'State of Calamity' for affected areas, based on the recommendation of the Interagency Committee on Environmental Health.

Marcopper mine's permit was suspended, and a month later United Nations experts concluded that the "Makulapnit and Boac River system has been so significantly degraded as to be considered an environmental disaster."¹¹⁸ They also found that the Marcopper environmental management structure was unsatisfactory and that no risk assessment of the Tapian pit had been carried out:

"The toxic spills immediately caused flash floods which isolated five villages, with a population of 4,400 people, along the far side of the Boac River. One village, Barangay Hinapula, was buried under six feet of muddy floodwater and 400 families had to flee to higher grounds. Their sources of drinking water were contaminated while fish, freshwater shrimp and pigs were killed. Helicopters had to fly in food, water and medical supplies to the isolated villages. Residents of 20 out of the 60 villages throughout the province were advised to evacuate their communities.

"The government estimates that this toxic waste killed P1.8 million worth of mature freshwater and marine life and P5 million (\$AUD 18,000) worth of bangus fry. The 27 kilometre Boac River, which is the main source of livelihood for those who are not part of the 1,000-strong workforce of Marcopper, has been declared dead by government officials." 119

The community men, women and children interviewed by the Mining Ombudsman and a number of other sources allege wide-reaching impacts of the Boac spill. A 1998 report by the International Federation of Chemical, Energy, Mine and General Worker's Unions (ICEM) estimated that the area covered by the spilled tailings stretched three kilometres from the coastline and extended at least 0.5 kilometers from the shore.¹²⁰ This same report also noted other impacts including:

- Downstream Barangays had to evacuate when silted water overflowed from river banks;
- · Domestic water sources were polluted;
- was cut and residents had to take long routes to reach schools and markets;
- · Residents using river water for laundry were deprived of livelihood;
- · Fish catch was drastically reduced and
 - Some residents claimed to have developed skin and other health disorders;
 - · Downstream residents became fearful of contamination of groundwater;
 - · Residents were fearful of further flooding. 121

A 1997 report by the Centre for Environmental Concerns in the Philippines also notes that:

'The March 24, 1996 mine tailings disaster displaced some 20 hectares of farms along the Boac riverbank. The tailings also hampered the transportation of crops and people. Children are especially vulnerable since they walk across the heavily-silted river three times when going to school, exposing themselves to health and physical hazards." 122

"I was washing clothes when this dam caved in, so the water was a bit like milk. So now the shrimps were all jumping around me. Mayor Madla told us not to eat the shrimps. We did not eat them since they were poisoned. After that I started to have this [showing skin condition on leg to interviewer]. Before these were really red ... I was able to take medication. The doctors said it came from Marcopper ... arsenic. My companions were serious. There was one who ... the whole body got swollen, turned red."

- A washer-woman who has regular contact with Boac River, June 2004.

• Usual access to certain *Barangays*

fishermen had to go further out to sea;

The lack of a risk assessment undertaken by Marcopper of how the tailings were contained within the Tapian pit was unusual, particularly given that it was unconventional to use a disused mine pit for tailings disposal. In addition, cross sectional diagrams of the drainage tunnel at the bottom of the pit "that reviewed at the mine site showed that fracture zones and ground water seepage were likely to occur along its entire length."123

4.2 Placer Dome recognises responsibility for remediating the river

"Today the people here in Boac, until now are struggling because of the spillage of waste from Marcopper mining. Mining is good, according to some, that it is progress, but on the other hand it brings suffering ... it is the people who suffered much because of mining ... at the moment we are struggling to have dialogue with Marcopper." Boac Resident, Bamban, Boac, June 2004.

Unlike the Mogpog spill and Calancan Bay pollution, Placer Dome recognised it had some responsibility for cleaning up the Boac River spill. On 11 April 1996, the Placer Dome CEO John Willson wrote to President Fidel Ramos, stating:

'The 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. In this regard Macropper has a clear responsibility to repair the damage and pay compensation for the loss caused by the discharge of tailings into the environment. As a major shareholder, Placer Dome is committed to ensuring that Marcopper will meet all its legal obligations.

Since we take our responsibility of good corporate citizenship very seriously, I feel that Placer Dome also has a larger moral responsibility to the residents of the area whose lives have been disrupted.' 124

Right: Locals live with bags full of contaminated tailings wasting away on the banks of the Boac River. Photo: David Sproule/ Oxfarr CAA

He outlined various strategies and clearly articulated the company's responsibility with regard to humanitarian and environmental concerns:

"I have authorized the following commitments by Placer Dome: The 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 ... Placer Dome recognizes its responsibility to rehabilitate all areas impacted by the tailings flow ... This program will include: 1) the rehabilitation of the river system; 2) the remediation of off-river impacts; ... 6) the development and undertaking of a program of river and ocean rehabilitation."¹²⁵

Marcopper claims that since 1998 the spill's impact has been reduced to almost nothing.¹²⁶ While locals disagree, some recent scientific studies have shown that the spill's impact may have reduced in recent years. However, the on-going problems with the tailings left in the river and threat of another spill remain unresolved. DENR concluded in its 28 August 2003 report that:

"In general, all the scientific studies cited above on the potential effects of MMC tailings spill suggest the remaining tailings in the Boac River have no significant broad scale environmental toxicological impacts. However, the water quality will improve further once the remnant mine tailings are finally removed and disposed appropriately."¹¹²⁷

According to this report, government monitoring of the Boac and Makulapnit rivers suggests that pH values are within DENR standards for Class C surface water, and that the Boac River's natural buffering capacity appears to be able to accommodate pollution from the mine site and the deposited tailings. The report states that pH values within the mine site are still generally acidic, and that there remains 526,000 square metres of tailings scattered along the Boac and Makulapnit Rivers, mostly in the dredge channel dug by Marcopper to stop the tailings reaching the ocean.

Unfortunately, this report does not detail how or when these measurements were made. In respect of the tailings in the river, Placer Dome states:

"A physical inventory of tailing in the river conducted by the Philippine Department of Environment and Natural Resources ('DENR') in March 2001 showed approximately 295,000 cubic meters or 20 per cent of the tailing from the spill remained to be removed from the river system."

Summary reports prepared by PDTS from five years of monitoring studies assert that the water quality had improved and aquatic life had returned to the Boac River. Observations of river use conducted by PDTS in 2001 also assert that other than certain upper areas of the river impacted by sources other than tailings from the 1996 spill, the river was once again available for traditional uses such as clothes washing, transportation, swimming, fishing and local gravel mining operations.¹²⁸

However Roberto Madla, Boac Mayor since 1995, advised that tailings are still in the river, and that the people of Boac are waiting for Marcopper and Placer Dome to fulfill their commitment to rehabilitating the river system:

"We were assured by the company that they are going to pay the effects of this to the community until such time that they have cleaned the river. Until this time, they should pay us."¹²⁹

Meanwhile, some researchers have disputed the findings and reports of PDTS and Marcopper. Marine biologist Dr Sharon Taylor undertook a coastal survey of Boac from 16 to 29 August 1999 and found tailings from the spill far out into the ocean:

"The seagrass bed is no longer continuous – large areas of mine tailings, devoid of seagrass alternate with the seagrass. This suggests that large areas of seagrass have been smothered by the tailings and did not survive."¹³⁰

In places this extended 200 to 300 metres offshore, with tailings five centimetres thick. Dr Taylor advised:

"Since the mine tailings spill in 1996, no real measures have been taken to clean up the river. In the ensuing three years there has been a prolonged El Nino event producing Acid Rock Drainage of the tailings (this is where the sulphides in the tailings react with the air producing acid which in turn releases the toxic form of the heavy metals). There has also been two severe typhoons and accompanying heavy rainfall. The estimate is that almost 30 per cent of the tailings remaining in the river (not including the tailings trapped in the dredge channel) have been washed into the coastal environment ... The extent of the effect of the mine tailings spill is not only confined to the river of Boac, but all along the coastline from Cawit to Maligaya. The potential loss of earning by

the fisherfolk of Boac is within the range of P578480-P615980 per year. This situation has been continuing for 3 years already. How many more years will it continue?"¹³¹

Further, in 2000 an independent team from the United States Geological Survey (USGS) undertook an investigation on Marinduque Island of the problems associated with the mine. In respect of Boac, the team found tailings in the River which they stated 'will be a longterm source of acid and metals into the environment, and are therefore in need of remediation.'¹³²

4.3 Ongoing impacts of pollution on local people

Many interviewed by the Mining Ombudsman exhibited what looked like skin burns. They dispute that the river is safe and clean, since only those who have regular contact with river water have these problems. The Mining Ombudsman also observed while travelling upriver towards the tunnel that the water was extremely vivid bright green and turquoise blue, suggesting the river may still be polluted.

"On my own observation ... Marcopper and Placer Dome said that they would clean the Boac River almost 80 per cent but we don't believe that because they did not do any rehabilitation permanent solution to the problem" – Beth Manggol, MACEC, Boac River, March 2004.

In its defence, Placer Dome advised in its letter dated 5 August 2004:

"Immediately following the accident, PDTS funded a series of medical clinics, which travelled around the region in the event any health effects were to arise from the spill. After 18 months of monitoring, no detectable, acute health impacts related to the presence of tailing deposits in the river were found and the clinics were discontinued. The UNEP Expert Assessment Mission Report concluded that there was no evidence of acute poisoning in the exposed population due to the mine tailing and that concentrations of trace metals in the mine tailing were not sufficiently high to represent an immediate toxicological threat.

A review of potential pathways for human toxicity impacts was conducted in 1996 by a U.S. toxicity specialist Gradient Corporation, who concluded that it was unlikely that any of the pathways would prove to be a concern for human health. Although the river is not a drinking water source (as communities along the river obtain their drinking water



Figure 7: Submarine Tailings Disposal

The validity of submarine tailings disposal (STD) as a safe means of mine waste disposal is widely disputed within and outside the mining industry – it is considered an unproven technology and effectively prohibited in most OECD countries. Community groups and NGOs from countries affected by STD, including the Philippines, rejected the technology in the Manado Declaration of 30 April 2001.¹⁴¹

Critics argue that STD is banned under the London Dumping Convention, which prohibits the discharge of waste into the ocean from human structures.¹⁴² Critics argue that the "precautionary principle" should apply in that STD should not be used unless it has been proven to cause no harm.¹⁴³ This view was supported in the World Bank Group Extractive Industries Review Final Report: Striking a Better Balance: Vol 1, the result of a three-year multi-stakeholder process involving industry, civil society and governments:

"On the basis of the precautionary principle, since marine biodiversity has global conservation significance and since the possible effects of STD on the tropical marine ecosystem are not well understood, STD should be avoided especially in island regions, where this method of disposal may not assure people's sustainable livelihoods."

In terms of the applicability of STD to small islands in the Asia Pacific like the island of Marinduque, APEX Environmental, a noted environmental NGO concluded in a general statement of concern with respect to STD that:

"... (i)ndirect surface impacts, as well as direct and indirect subsurface impacts [of STD] have not been considered thus far. The food chain effects can impact on numerous commercially valuable fish species ... as well as long-lived mammals such as cetaceans and humans. The indirect surface impact of biological vectors, transporting wastes from sub surface 'disposal' to productive coastal and oceanic waters is not well understood but nonetheless a significant environmental and social risk."¹⁴⁴

APEX Environmental also raises concerns about the environmental and human health risks from breakages of pipes used for STD, which at other locations (including Placer Dome operations in Papua New Guinea) have taken one to six months to remedy.

Recent developments at PT Newmont Minahasa Raya gold mine in North Sulawesi, Indonesia – which has used STD since 1996 – also undermines pro-STD arguments. In November 2004 the Indonesian government announced that it had officially adopted a multi-stakeholder report charging 80 per cent owner and operator Newmont Mining Corporation with polluting Buyat Bay with mercury and arsenic, close to where it discharges tailings. Indonesian police also detained five Newmont employees for approximately one month while they investigated the pollution allegations.¹⁴⁵ "... we learned that a lot of first world countries are not accepting submarine tailings disposal ... it was very shocking for us when we learnt that this company [Placer Dome] is pursuing submarine tailings disposal which to a lot of Canadian and Australians is unacceptable"

- Adeline Angeles, Chair of the Committee on Environment in the Marinduque provincial legislative body, June 2004.

from groundwater sources), tailing deposits along the river system have the potential to be leached by rainfall and floodwater. With this possibility in mind, groundwater monitoring undertaken by PDTS over four years after the time of the tailing spill indicated that the presence of tailing deposit had no identifiable effect on groundwater quality. The results from this testing were all made public and were provided to the Philippine Department of Health."

4.4 Fear of another disaster

"They have no peace of mind during heavy rains, because at any time the rivers will overflow the banks and will destroy the houses and will cause a death and destruction to their plants and to their animals that they raise, because of the heavy siltation of our river and so the banks easily overflow during heavy rains." – Monsignor Senen Malapad Diocese, MACEC Chair and Parish Priest, June 2004.

Some of those interviewed also expressed fears that the tunnel responsible for the 1996 spill has not been adequately plugged. However, Placer Dome advised in its letter dated 5 August 2004:

"The plug was constructed in the Tapian Pit drainage tunnel by the Canadian engineering firm Klohn Crippen and its installation was subsequently certified by independent engineers. The 310 tunnel is not the same structure as the plugged Tapian Pit drainage tunnel and any concerns with the 310 tunnel would not impact the plug."

Consistent with Placer Dome's advice above, others' expressed concern not over the integrity of the plug but the integrity of the 310 tunnel that is part of the Tapian Pit. They fear that this tunnel is at risk of bursting and causing a similar disaster to what occurred in 1996. They also advised the Mining Ombudsman that the tunnel is leaking, causing pollution in the river and the extremely bright green colour observed during the 2004 investigations.

The concerns of the local people were supported in the 2001 Klohn Crippen assessment which stated that there "is a high probability under current conditions for a rapid and uncontrolled release of pit waters due to failure of the 310 tunnel".¹³³ They were also concerned that there is no controlled outlet for water release in the Tapian pit, and so overflow was a likely future outcome.134 As discussed in Section 3.2, on 11 October 2001 the DENR issued an order to Placer Dome, PDTS and Marcopper to conduct immediate remedial work on the Tapian Pit Elevation 310 Tunnel within 15 days, or face appropriate civil, administrative and criminal action if an 'untoward incident' occurred.

Placer Dome's response does not therefore address community concerns that the 310 drainage tunnel could collapse and is still leaking pollutants into the Boac River. PDTS has not monitored the river since withdrawing from the Philippines in 2001.

4.5 Options for tailings disposal

What should be done with the remaining large quantities of tailings remains unresolved. In 1998 and 2002, Marcopper hired a contractor who employed locals to fill sandbags with tailings from the river, intending to haul them back upstream to the Tapian Pit.¹³⁵ Locals told the Mining Ombudsman they were paid P185 per day (\$AUD 4.70¹³⁸) to put tailings into bags that were piled on the river bank – this was done largely by hand with little or no safety equipment. The Mining Ombudsman observed thousands of these bags degrading along both banks, and the tailings being washed back into the river.¹³⁷

"The kind of cleaning up of Marcopper, the illegal sandbagging activities is useless. Marcopper and Placer Dome are just spending money for nothing ... they made it useless because ... the sacks of sandbags are being destroyed and being washed away again to the river and sea" – Beth Manggol, MACEC, Boac River, March 2004 Local community organisation the Marinduque Council for Environmental Concerns (MACEC) and the Boac municipal government stopped this sandbagging because the contractor was not paying social security, not providing adequate safety equipment and did not have an official permit. MACEC and the Boac Mayor also expressed anger to the Mining Ombudsman that this form of 'environmental rehabilitation' was inappropriate and dangerous, and would not have been permitted in Australia or Canada.

MACEC, the local government and communities near the river do not want the tailings moved back into the Tapian pit, which they consider to be unstable following the 1996 disaster. The DENR has also rejected this proposal due to "unresolved technical matters".¹³⁸

Placer Dome favoured the use of Submarine Tailings Disposal (STD), a controversial technique where mine waste is deposited deep at sea below what is known as the 'euphotic zone'.¹³⁹ Theoretically the waste is supposed to represent 'a low risk to the productivity of any utilised resource.'¹⁴⁰ Placer Dome advised the Mining Ombudsman in its letter dated 5 August 2004:

"PDTS believes that Submarine Tailing Disposal (STD) was the most scientifically sound method for disposing of the remaining tailing from the Boac River. At the time, extensive community consultations made it clear that STD was controversial and that the local residents preferred that the tailing be placed elsewhere on the Marcopper mine site, which required the consent of Marcopper Mining Corporation. Consequently, PDTS did not pursue STD and instead entered into an agreement with F Holdings, to complete the remaining river clean up."

As yet a permit for the use of STD has not been granted, the second application for an STD permit was rejected by Antonio Cerilles, the DENR Under Secretary "... due to an 'absence of social acceptability as evidenced by the consistent opposition from directly affected stakeholders of Marinduque." ¹⁴⁶

The Boac Mayor is opposed to STD and believes tailings "should be deposited in the mouth of the river by means of reclamation".¹⁴⁷ His plan is to use tailings to reclaim land on both sides of the river mouth, which would be covered with soil to create a park, municipal port and harbour. He believes this will have no negative environmental impacts, although an independent environmental impact assessment is yet to be undertaken.¹⁴⁸

Marinduque Congressman Reyes has expressed his desire for the tailings and water in the pit to be treated at a waste treatment facility that he would like to be built on Marinduque and paid for by Placer Dome.¹⁴⁹ He accuses the DENR of not undertaking its own research into permanent options for the tailings, but relying too heavily on Marcopper and Placer Dome to dictate what should be done.¹⁵⁰

Oxfam Australia believes that any tailings solution must be developed with the full participation of local people and local government. Further, while it is important that the Boac River be properly rehabilitated, the storage/treatment of tailings in Calancan Bay and the Mogpog River must also be included in any such plans.

In respect of the remaining rehabilitation work, Placer Dome states in its letter dated 6 August 2004:

"At the time of the accident, it became immediately clear that Marcopper could not respond to the immediate need to stop the flow of tailings and devise a long-term solution to prevent the leakage and remediate the river. As a result. Placer Dome, through a subsidiary company, Placer Dome Technical Services (Philippines) Inc.(PDTS), voluntarily contracted with Marcopper to plug the tunnel and to substantially mitigate the impact of the tailing spill on the river. Without any legal obligation, Placer Dome stepped in to prevent a verv serious situation from worsening. Under the contract, all other reclamation issues on the mine site were and remain the express responsibility of Marcopper ...

"Given its desire to complete its contractual obligations, PDTS determined that the remaining work was best handled locally by Marcopper and its controlling shareholder, F Holdings, in consultation with the appropriate Philippine authorities. In November 2001, PDTS, Marcopper and F Holdings agreed that F Holdings would undertake the work to complete the clean-up of the river system with the support of Marcopper."

"Under the agreements, PDTS made available sufficient funds to Marcopper and F Holdings to cause substantially all of the remaining tailing located in the river and estuary system to be removed and deposited elsewhere at the Marcopper minesite. The international environmental engineering firm URS was engaged by F Holdings to certify the fulfillment of certain performance milestones by F Holdings in connection with the completion of the river clean-up."

4.6 Problems with the payment of compensation

A Placer Dome commissioned Social Impact Assessment in 1996 recommended that the residents of Boac impacted by the disaster should be paid compensation over ten years in decreasing amounts. Compensation claims at Boac have been administered through a body called the Environmental Guarantee Fund (EGF). While much of the compensation has been paid, there are 2,388 claimants (owed P27, 936,051, approximately \$AUD 600,500) in Boac municipality and 1,017 (owed P13,183,155 – approximately \$AUD 300,900) in Mogpog who have waited six years for compensation for the periods 1997 to 1998.¹⁵¹

DENR stated in its 28 August 2004 update that a total of P61,068,837.61 (approximately \$AUD 1,400,800) has been paid from the EGF as damage compensation to the 6,390 claimants for the period 1996 to 1998. DENR has also stated that compensation claims from 1999 to 2001 were being processed by the EGF.

PDTS claims to have guaranteed P40 million (approximately \$AUD 933,900) to the EGF,¹⁵² however Marcopper is holding this money back because it is demanding all claimants sign a quit claim. Quit claims would mean that signatories would forgo all future claims against the company from the Boac River

The mouth of the Boac River still full of waste and debris from the 1996 tailings disaster. Photo: Ingrid Macdonald/OxfamAUS



spill. Claimants who have already received compensation were not required to do so.¹⁵³

Boac Councilor Larracas believes that demanding a quit claim is contrary to the EGF's guidelines. The EGF has stated that the details of the quit claim will not be revealed until after it has been signed and the payments made.¹⁵⁴ In 2002, Marcopper also asked that claimants take voluntary polygraph tests in connection with their claims.¹⁵⁵

There has been strong community opposition to the quit claim; resolutions have been passed in the Marinduque *Sangguniang Panlalawigan* (the provincial government's legislative body) demanding compensation be paid without quit claims. An excerpt from its 23 June 2003 resolution says:

"Resolution calling for the immediate processing of pending compensation claims of the affected residents of Boac and Mogpog and condemning the informal demand by Marcopper for the execution of quit claims as a condition for the processing of the claim."

However, Placer Dome does not support the signing of quit claims. In a letter dated 3 February 2004, John E Loney, Chair of PDTS (Philippines) Inc stated:

"We are writing to advise the members of the EGF Committee that PDTS does not expect or require the EGF claimants to sign quit claims releasing all future claims as a condition for receiving the funds that PDTS has agreed to pay to the EGF account."¹⁵⁶

5. The mine site

Placer Dome further advised the Mining Ombudsman on 5 August 2004 that:

"PDTS notified Marcopper Mining Corporation and other representatives on the Environmental Guarantee Fund (EGF). including the Philippine Government, that PDTS would provide a sum not exceeding Php 40,000,000 towards payment of certain approved EGF claims relating to the March, 1996 tailing leak from the Tapian pit. PDTS subsequently received reports that Marcopper Mining Corporation had advised the members of the EGF Committee that the approved claims would only be paid if the EGF claimants signed quit claims releasing all future claims. PDTS advised the members of the EGF Committee that PDTS does not expect quit claims releasing all future claims as a condition for receiving the funds that PDTS has agreed to pay to the EGF account."

The EGF has also been criticized by the Marinduque Sangguniang Panlalawigan for not processing the compensation claims within a reasonable time. Its 27 June 2003 resolution stated:

"Resolution requesting the (EGF) committee to immediately facilitate the payment for the damages brought about by the spill of mine tailings from the Marcopper Tapian pit."

The meeting of 13 October 2003 expressed:

" ... serious disgust on the seemingly inefficient leadership in the Environmental Guarantee Fund (EGF) committee ... and requesting the President, Her Excellency Gloria Macapagal-Arroyo and the DENR Secretary, Hon. Elisea Gozun to make proper mediation in the EGF committee to address the slow processing of claims and other related activities of the committee in relation to the affected individuals and local communities".

Placer Dome advised the Mining Ombudsman in its letter of 5 August 2004:

"During PDTS' spill remediation efforts, several other programs such as the Barangay Enterprises and Sustainable Technologies Program (BEST) and island electrification were also established. In all, 23 barangays were able to take advantage of the technical and financial assistance offered to local small-scale development projects. It is hoped that the business management skills training that was provided would allow people to run their projects successfully on their own in the future.

"PDTS also provided US\$ 500,000 in funding for the first two phases of

an island-wide electrification project. The remainder is to be provided by Marelco and the Philippine Department of Public Works."

However, there seems to be some dispute over how much money Placer Dome has spent on works surrounding the spill: the company claims it has spent \$US71million as advised in its letter of 5 August 2004:

"In addition to the expenditures by PDTS in connection with its recent contractual arrangements with Marcopper and F Holdings, Placer Dome has incurred expenditures of approximately US \$70 million to plug the tunnel, clean the river and repay the Marcopper loan referred to below. PDTS also paid more than US \$1 million in compensation to residents whose livelihoods were interrupted by the spill. Compensation was administered by a third party through the Environmental Guarantee Fund (EGF). The agreements with Marcopper and F Holdings provided that PDTS would continue to consider for payment to the EGF legitimate compensation claims directly related to the 1996 tailing spill on or before the first anniversary of the new agreements, up to an agreed-upon amount. On the earlier of this amount being paid, or the first anniversarv being reached on November 30. 2002, Marcopper would thereafter be solely responsible for all subsequent EGF claims."

However, the Boac Mayor advised the Mining Ombudsman that Placer Dome has spent only \$21 million, as most has been spent on repaying Placer Dome loans¹⁵⁷ Congressman Hon. Edmundo O Reyes, Jr LAMP also expressed a different opinion of Placer Dome's payment in his 18 March 1999 privileged speech. He claims that this money was mainly spent on paying off Placer Dome's loan guarantees so the company could leave the Philippines and avoid legal action:

"Next there is the purchase of the ADB secured and guaranteed debt of more or less \$40 million. In March of 1997, a Cayman Island company called MR Holdings paid directly to ADB the entire loan, thereby becoming the assignee of the debt. Again, Placer Dome removed another vital obstacle against a clean getaway by clearing its good name and avoiding any messy legal action with this major international financial institution. Unfortunately, for Filipino-owned banks such as Solidbank which holds a P52 Million unsecured loan, its only recourse would be to wait for the courts to finally allow it to proceed against the assets of its fellow Filipino company, Marcopper."158 In March 2004, the Mining Ombudsman was informed that communities in Kilo Kilo village, near the mine site, had concerns about uncovered tailings being blown onto their rice fields, and ground and surface water pollution from the stored tailings and waste rock. Communities living near the mine site have also claimed that their land was confiscated in return for low rates of compensation and employment opportunities, which have disappeared since the mine closed in 1996.¹⁵⁹

A letter written on 9 October 2001 by Alberto O. Cuarteron representing the Remaining Employees of Marcopper states:

"The non-operational status of Marcopper has resulted to the indefinite suspension of our fringe benefits and up-dating of our monthly salaries for almost one (1) year now. Please do understand that nonpayment of our benefits and the continuous delayed payments of our salaries has brought us tremendous financial difficulties to defray various expenses of our families especially the medical and schooling of our children and other basic daily necessities."

"Therefore, for humanitarian reasons and to protect our lawful interest, we are seeking your kind assistance and intervention to help us present our case with Placer Dome Inc whom we believe to be responsible in paying our back wages and other fringe benefits being the technical managers of Marcopper operation during and before the incident ... "¹⁶⁰





6. Recommendations

Communities along the Mogpog River interviewed by the Mining Ombudsman have a simple message:

"We want to tell Marcopper to stop mining Marinduque, second to pay for the damages they have done to the river and third, to pay the community and to clean the river." – Bocboc residents, 2004

The Philippine Government department responsible for mining advised the Mining Ombudsman:

"MGB [Mines and Geosciences Bureau] has taken the view that there is a collective responsibility – both Marcopper and Placer Dome, especially at the time when this thing happened ...

"On the aspect of liability of the company that was acting in a mining company and then moves out because of that one incident, my personal view is that, legally speaking they probably would be right in saying they no longer are – but then there is the moral issue, which is the bigger issue. If you have a stake globally, you need to come back and make sure that things are done properly. That's my personal view and it should apply to everyone – you should come back and clean it up." Mr Michael Cabalda. Chief of Science and Research in the Mining, Environment & Safety Division of the Philippine government's Mines and Geosciences Bureau (MGB), Manila, the Philippines, June 2004.

The following recommendations are based on community demands¹⁶¹ voiced continuously since the mine was closed in 1996, and through testimonies gathered during the Mining Ombudsman's investigations. Even though Placer Dome and its subsidiary PDTS now appear to be out of the legal reach of the Marinduque communities, many community members still believe that Placer Dome has some responsibility for the deaths of their children, widespread ill-health and their polluted environment.

General

- 1 That, in accordance with community wishes, Placer Dome and Marcopper should ensure that the Marinduque mine is not re-opened and that all plans for possible re-opening of the mine on Marinduque are made available to communities. These plans should not be taken forward without the full free, prior and informed consent of community women, men and children.
- 2 Placer Dome and Marcopper should disclose the results from all of its scientific monitoring and engineering investigations that have

been undertaken in relation to the Marcopper mine and its impact of surrounding communities.

Calancan Bay

- 3 Placer Dome and Marcopper should acknowledge that tailings disposal into Calancan Bay had an immediate detrimental impact on the food security and livelihood of nearby communities, through turbidity from surface disposal and progressive smothering of corals and sea-grasses that sustain fish; and that this damage has ongoing economic and health effects.¹⁶²
- 4 Placer Dome and Marcopper should acknowledge that the tailings contain heavy metals that are still leaching into the bay and should fund an independent environmental and health investigation into the impacts of tailings in the bay.
- 5 Placer Dome and Marcopper should compensate local communities affected by loss of livelihoods (e.g. fishing) since 1975 due to tailings disposal and provide sufficient funds to cover health-related expenses. Compensation should be based on the publiclyreleased findings of an independent environmental and health audit.
- 6 Placer Dome and Marcopper should rehabilitate Calancan Bay so it can once again be a productive eco-system with full community participation.

Mogpog

- 7 Placer Dome and Marcopper should compensate those who suffered damages and losses as a result of the 1993 Maguila-Guila Dam burst, including those dependent on the river for their livelihoods (including fishing) and others affected by the Boac River spill.
- 8 Placer Dome and Marcopper should fully rehabilitate the Mogpog River and decommission the Maguila-Guila Dam with the full participation of affected communities and local government.
- 9 Placer Dome and Marcopper should remove the mine waste that has built up behind the dam (within the Maguila-Guila Creek) and the mine waste in the San Antonio waste rock dump.
- 10 An independent environmental and health study should be commissioned by Placer Dome to determine the extent of the damage and the findings should be released publicly.

Boac

- 11 Placer Dome and Marcopper should seal the tunnel in the Tapian pit.
- 12 Placer Dome and Marcopper should fully rehabilitate the Boac River and marine areas impacted by the 1996 spill.
- 13 Placer Dome and Marcopper should resolve the issue of compensation for those affected by the Boac tailings spill. These unresolved issues were specifically outlined in a letter sent on 1 December 2003 to the Marcopper Mining Corporation by the Environmental Management Bureau of the Philippines:
- That compensation amounting to Php 27,936,051 and owed for the years 1997-98 be paid to the 32 Barangays affected in the Municipality of Boac.
- That payment of the claims for compensation from the Municipality of Mogpog is paid. Claims total P13, 183,155 of 1,017 claimants (relating to Boac spill's effects on marine environment near Mogpog).
- 14 The payment of compensation should not be dependent on the claimants signing a quit claim or taking polygraph tests.

The mine site

- 15 Placer Dome and Marcopper should commission a thorough independent hydro geochemical and engineering study of the mine site, focusing on environmental, health and safety risks. The results should be released publicly.
- 16 Placer Dome and Marcopper should stabilise and eventually decommission all dams and waste structures including the Maguila-Guila Dam, upper and lower Makulapnit Dams, Bol River reservoir dam and all former drainage tunnels in the Tapian pit, particularly the 310 tunnel.
- 17 Placer Dome and Marcopper should undertake proper closure of the mine site including complete rehabilitation of the mine site and affected areas around the mine site.

Former employees and indirect employment

- 18 Placer Dome and Marcopper should pay all back-pay and lost benefits to all former employees of Marcopper.
- 19 Placer Dome and Marcopper should pay all outstanding taxes to the municipalities of Sta. Cruz, Boac and Mogpog.



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Glossary

Local community or village

The Philippine Department of

Environmental Guarantee Fund

Environmental Protection Agency

United States of America

International Federation of

General Worker's Unions

Institute for Environment.

Marinduque Council for Environmental Concerns

Conservation and Research

of Ateneo de Naga University

Marinduquenos for the Interest of

the Nation and the Environment

Marcopper Mining Corporation

Chemical, Energy, Mine and

Calancan Bay Rehabilitation Program

Environment and Natural Resources

Barangays

CBRP

DENR

EGF

FPΔ

ICEM

INECAR

MACEC

MINE

MMC

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- NCV Nerve Conduction Velocity
 - NGO Non-government organisation
 - NPCC National Pollution Control Commission
 - PAB Pollution Adjudication Board
 - PDTS Placer Dome Technical Services
 - PMF Probable Maximum Flood
 - **STD** Submarine Tailings Disposal
 - **ULAN** Upholding Life and Nature
 - UPPGH University of Philippines / Philippines General Hospital

Right: The bright green-blue colour of the Boac River with the bags full of tailings behind– this photograph was taken in March 2004. Photo: Ingrid Macdonald/OxfamAUS



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The Mogpog River. The red-orange colour of the water is caused by acid-mine drainage. Photo: David Sproule/OxfamAUS



National Office 156 George Street, Fitzroy Victoria, Australia 3065 Telephone: +61 3 9289 9444 ABN 18 055 208 636

www.oxfam.org.au/campaigns/mining miningombudsman@oxfam.org.au