

work together to ensure that corporations have no hiding place—and no easy exit.

1. The outstanding shares in the mine are held by the Papua New Guinea government (30 percent, including 12.5 percent on behalf of the province and 2.5 percent on behalf of landowners from the mine area) and the Canadian mining company Inmet (18 percent).

2. The Ok Tedi mine is continuing to dredge the river at an annual cost of US\$35 million, although only a fraction of the material released into the river is removed at the dredging site. (Ok Tedi Mining, Ltd., 2002)

3. These agreements were signed after lengthy consultations with downstream communities that were facilitated in part by several local NGOs. (Higgins, 2002)

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References & further reading

Coumans, C. & Nettleton, G. (2002). *The Philippines. In Undermining the Forest. The Need to Control Transnational Mining Companies: A Canadian Case Study. The Forest Peoples Programme. Pp 56-70.*

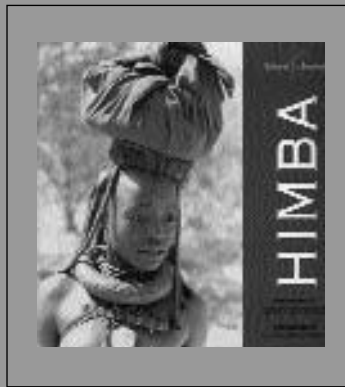
Bray, J., Ed. (1997). *No Hiding Place. London: Control Risks Group Limited.*

Higgins, R.J. (2002). *Ok Tedi: Creating Community Partnerships for Sustainable Development. www.oktedi.com.*

Kirsch, S. (2002). *Anthropology and Advocacy: A Case Study of the Campaign against the Ok Tedi Mine. Critique of Anthropology 22:2, pp 175-200.*

Ok Tedi Mining, Ltd. (2002). *Corporate website. www.oktedi.com.*

Weiner, J. (1998). *The Incorporated Ground: The Contemporary Work of Distribution in the Kutubu Oil Project Area, Papua New Guinea. Resource Management in Asia-Pacific Working Paper No. 17. Canberra: Resource Management in Asia-Pacific Project, The Australian National University. <http://coombs.anu.edu.au/Depts/RSP/AS/RMAP/weiner.htm>.*



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Environmental Impacts

Located in the Star Mountains of Papua New Guinea, the Ok Tedi mine began producing gold in 1984 and copper three years later. While the original Environmental Impact Assessment for the project called for the construction of a tailings dam, this work was left incomplete after a landslide destroyed the footings for the structure. In 1986, the government of Papua New Guinea granted to the company temporary permission to mine using riverine tailings disposal, in which mine wastes are released into local rivers. Permission was renewed in 1989 following the civil war on the island of Bougainville, which forced the closure of the controversial Panguna copper mine operated by Rio Tinto and put enormous economic pressure on the state. While the lack of expenditure associated with tailings containment—a tailings dam or a pipeline to a lowlands storage facility, for example—made the Ok Tedi mine a relatively low-cost copper producer, cost overruns and declining metal prices forced investors to write off much of their US\$1.4 billion expenditure.

The Ok Tedi mine currently releases more than 30 million tons of tailings and another 40 million tons of waste rock into the Ok Tedi River annually, causing massive environmental degradation downstream along the Ok Tedi and Fly Rivers, one of New Guinea's largest and most important river systems. Following the release of detailed environmental impact studies carried out by the Ok Tedi mine in 1999, the project's managing director described the results as "much worse than previously expected." The corporate review acknowledged that even if mining were to stop immediately, the problems downstream would continue to increase due to the sheer volume of tailings already in the river and erosion from waste rock dumps adjacent to the mine in the mountains. The problems are expected to continue for at least 50 years, which is as far into the future as their models can project. While 1,300 square kilometers of forest along the Ok Tedi and Fly Rivers are already dead or

under severe stress, this damage is expected to spread downstream, covering as much as 2,040 square kilometers. Even this projection may be optimistic, however, and the affected area may ultimately expand to 3,000 square kilometers. While the changes to the river system will eventually stabilize, the local species composition is not expected to return to pre-mine conditions, with savanna grasslands replacing much of the rainforest along the river.

Questions remain about toxicity at both the bottom and the top of the food chain, ranging from algae in the Ok Tedi River to larger fauna, like birds and flying foxes. While the health risks of exposure to heavy metals for the human populations along the river are expected to be relatively minor, the affected communities must nonetheless be monitored for their exposure to lead and cadmium, both of which are highly toxic. Finally, the potential for acid rock drainage is significant, and could precipitate an even greater environmental crisis. Continued operation of the mine without effective tailings containment increases the chance of further environmental problems.

References & further reading

Chapman, P., Burchett, M., Campbell, P., Dietrich, W. & Hart, B. (2000, April). Ok Tedi Mining, Ltd. (OTML) Environment Peer Review Group (PRG): Comments on Key Issues and Review Comments on the Final Human and Ecological Risk Assessment Documents. www.oktedi.com.

Hyndman, D. (1994). Ancestral Rain Forests and the Mountain of Gold: Indigenous Peoples and Mining in New Guinea. Boulder: Westview.

Parametrix, Inc. & URS Greiner Woodward Clyde (1999a, August 6). Draft Executive Summary: Assessment of Human Health and Ecological Risks for Proposed Mine Waste Mitigation Options at the Ok Tedi Mine, Papua New Guinea. Detailed Level Risk Assessment. Prepared for Ok Tedi Mining, Ltd. www.oktedi.com. See also (1999b, August 13) Screening Level Risk Assessment.

ter achieved when one has stared into the eyes of a major environmental crisis." He praised BHP Billiton for "being ahead of the debate" with its new corporate policy against riverine tailings disposal despite the defense of this practice only two years ago by an Ok Tedi top executive, who argued that it would be "neo-colonial" for corporations to impose their environmental values on developing countries.

Gilbertson also described the "complex trade-offs" made in the Ok Tedi case as a balancing of economic, social, and environmental concerns, the so-called "triple bottom line" of popular business parlance. He adopted a more evasive position in response to discussion about "legacy issues," in which specific corporations or the entire industry may be held responsible for the environmental rehabilitation of mining projects that possess liabilities exceeding their remaining value. He questioned whether the emphasis on mining companies is fair: "Should we then require those who in the past purchased the metals and minerals at prices below their true cost—i.e. principally the developed nations—to compensate those who today must bear the full cost—principally the developing nations? Should the producer seek a refund from the host government, for taxes and royalties overpaid before the 'true cost' was recognized in determining its past profits?"

If corporations are granted the authority to regulate their own conduct, setting the standards for emissions, monitoring, and compliance, then surely they must also be held accountable for its outcomes. Yet just the opposite is the case for transnational mining companies like BHP Billiton, which has walked away from environmental disaster at the Ok Tedi mine rather than take responsibility for its actions. Other mining companies are similarly culpable. It is imperative that this trend be challenged in global forums like the recent World Summit on Sustainable Development in Johannesburg and the World Bank's review of its investments in oil, natural gas, and minerals. Ultimately these challenges will require greater cooperation between anthropologists, environmental activists, lawyers, and the indigenous communities that are disproportionately affected by these projects. We must

made public. The Mining Act also provides the new operators of the Ok Tedi mine with unprecedented authority to establish environmental standards as well as procedures for monitoring and compliance. Even given the influence of neo-liberal policies that promote corporate self-regulation, the agreement represents an extraordinary transfer of rights from the state and ordinary citizens to a private company, as Simon Di-vecha of the Mineral Policy Institute has observed. Despite the environmental problems downstream, no changes to the mine's operating procedures are likely.²

The Mining Act also gave legal force to documents known as the Community Mine Continuation Agreements (CMCAs), which were negotiated by the mine with the affected communities.³ The CMCAs refer to the rights of two groups of people, the "Land Owners" and the "Land Users." These phrases describe two local terms; the Yonggom people who live along the Ok Tedi River distinguish between *ambip kin yariman*, the owners of the land, and *animan od yi karup*, the people who derive food (*animan*) and money (*od*, also shell valuables) from the land. The implementation of the 1996 settlement agreement reached an impasse when BHP was willing to compensate only those who owned land along the Ok Tedi and Fly Rivers where damage had occurred. The company argued that there is no provision in the common law for the payment of compensation for damages to persons who are not rightful property owners. This argument was flawed because the lawsuit had not been argued on the basis of damage to property, but on the basis of the infringement of subsistence rights. If compensation was limited to property owners, a substantial proportion of those who made use of the land in question would be excluded from the settlement. This reasoning was eventually accepted and the rights of both Land Owners and Land Users were included in subsequent agreements between the mine and the communities downstream. The CMCAs have thus inadvertently had one positive effect: with the passage of the Mining Act, these categories have acquired the force of law, and provide formal recognition of subsistence rights. Other aspects of the CMCAs, however, were not so salutary.

Yonggom relationships to land differ significantly from those based on Euro-American property models in which land is bought and sold like any other commodity. While I initially translated *yariman* as "ownership," it also has other meanings. The central actor in ritual divinations held to seek the cause of a persistent illness, or *anigat*, is the *anigat yariman*. This role is played by the senior kinsman or guardian, who is responsible for the patient's wellbeing. Similarly, the sponsor of an *arat* pig feast is known as the *arat yariman*. The *yariman* relationship is based on the responsibilities of kinship, guardianship, and sponsorship. Given that *ambip kin* refers to both the land and the people who live there, *ambip kin yariman* refers to those responsible for lineage or clan land.

These special relationships to land have figured significantly in efforts by lawyers representing the downstream communities to challenge the validity of the CMCAs. The CMCAs authorize any "person representing or purporting to represent a Community or clan" to bind the members of the community or clan to the agreement, "notwithstanding . . . that there is no express authority for that person to sign or execute the Community Mine Continuation Agreement on behalf of the members of the Community or clan concerned." The members of future generations are also bound to the agreement. Among the original provisions of the CMCAs was the obligation that community members "opt out" of the legal action against the mine; the agreements were designed to facilitate BHP Billiton's exit from Papua New Guinea by preventing the people living downstream from choosing whether to participate in the court case.

In preparation for a trial held in February 2002 seeking an injunction preventing the implementation of the CMCAs, I was asked to provide expert advice regarding the differences between political authority in villages and customary claims regarding land. Most villages in Western Province are residential affiliations established not on the basis of customary associations but as initiatives of colonial history. The village representative's authorization to bind the members of the village on matters concerning the disposition of land threatens to bypass the system of customary land tenure.

Customary law in Papua New Guinea recognizes the collective ownership of land and requires that decisions affecting the ownership or use of land held under customary tenure be undertaken with the involvement of all customary owners. No decisions are considered binding without proper consultation and the formulation of an agreement according to the principles of "Melanesian consensus." Moreover, these decisions must be made by the clan or the lineage, the social units associated with land ownership. In contrast, village leaders acquire their political power from the government rather than custom, and lack authority over the disposition of land.

Because the CMCAs are fundamentally about damage to land and rivers, they should be addressed in the appropriate forum; decisions should be reached through discussion and consensus among clan or lineage members, who may then give their representative the authority to sign agreements on their behalf. Village representatives, even though they may be democratically elected, lack the requisite authority to bind persons from a particular village or community to decisions affecting their land.

Lawyers for BHP Billiton and the Ok Tedi mine agreed on the morning of the trial to give 28 days notice of any intention to enforce the contested provision of the CMCAs that would have required the people living downstream from the mine to "opt out" of the legal action. In effect, they temporarily conceded to the injunction sought by the lawyers for the plaintiffs. This agreement was crucial given that the court case charging the mine with breach of the 1996 settlement is the only remaining opportunity to hold BHP Billiton fully accountable for the environmental impact of the Ok Tedi mine. That case is expected to be heard in the Victorian Supreme Court in 2003.

Meanwhile, BHP Billiton is attempting to improve its public image by portraying its actions in a positive light. In a recent speech to a Toronto meeting of the Global Mining Initiative, an organization representing the industry's most powerful corporations, BHP Billiton CEO Brian Gilbertson claimed that "an understanding of the real challenges of sustainable development is perhaps bet-



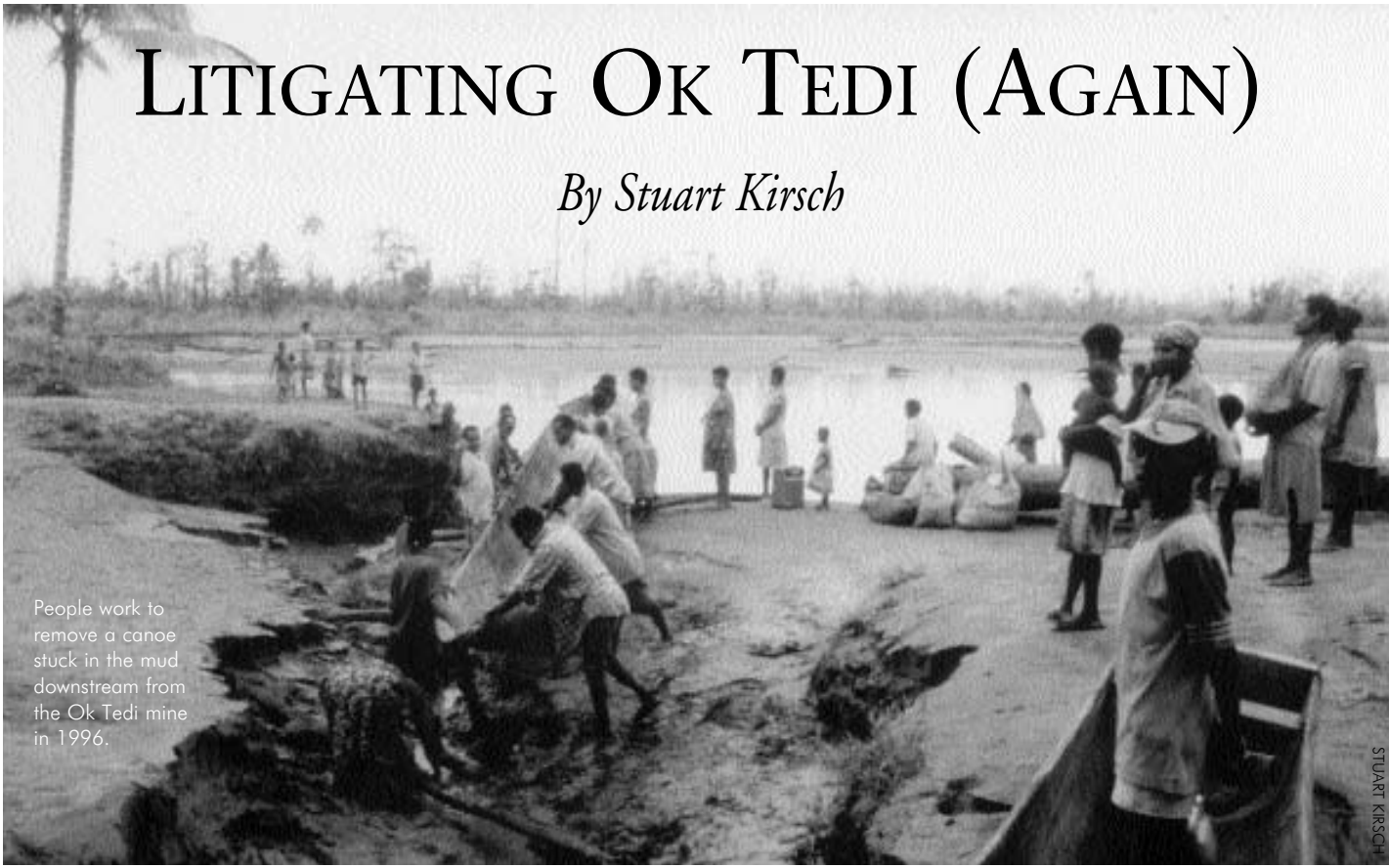
The Ok Tedi River in 1989 ...



... and downstream from the mine in 1998.

LITIGATING OK TEDI (AGAIN)

By Stuart Kirsch



People work to remove a canoe stuck in the mud downstream from the Ok Tedi mine in 1996.

STUART KIRSCH

Several years ago the corporate consultants Control Risks Group published a report entitled *No Hiding Place*. (Bray, 1997) Noting the success of non-governmental organizations in challenging the conduct of corporate giants like Shell, Texaco, and Freeport-McMoRan, the report urged transnational corporations to become more proactive in response to criticism. Yet several mining companies have found a way to distance themselves from their worst mistakes—they abandon the project and run. When a tailings impoundment failed at the Marcopper mine on the island of Marinduque in the Philippines in 1996, for example, it buried the Boac river under 3 million tons of toxic mine waste. The Canadian mining company Placer Dome subsequently sold its shares in the mine to a local partner, which lacks the assets and the technological capacity to clean up the remaining mess. (Coumans and Nettleton, 2000) More recently, BHP Billiton took leave of its controversial Ok Tedi copper and gold mine in Papua New Guinea, which faces another 50 years of negative environmental impacts, transferring its shares in the mine to an off-shore development trust.

The Ok Tedi mine received international attention following a 1994 lawsuit

representing 34,000 indigenous plaintiffs against Broken Hill Proprietary (BHP), the mine's majority shareholder and operating partner. In an attempt to enforce the case's 1996 out-of-court settlement, the communities downstream from the mine returned to the Victorian Supreme Court in Melbourne, where BHP is incorporated, in April 2000. The new action charges the company with breach of the settlement for failing to halt riverine disposal of tailings and other mine wastes, which has caused extensive environmental damage downstream (see page 18).

In January 2000, the World Bank recommended that the Ok Tedi mine be closed as soon as programs to secure social and economic stability were implemented. When BHP indicated its intention to withdraw from the mine, both the government of Papua New Guinea, which depends on the Ok Tedi mine for 18 percent of its foreign exchange earnings, and the communities downstream, which seek additional compensation for damages as well as opportunities for development, insisted that the mine continue operating until the ore body is exhausted in 2010. (Higgins 2002) In December 2001, the Papua New Guinea Parliament passed the Mining Act of 2001—officially, the

Ok Tedi Mine Continuation (Ninth Supplemental Agreement)—establishing the conditions for BHP Billiton's exit from the mine, which will continue to operate independently. Finally, in February 2002, BHP Billiton transferred its 52 percent share in the mine to the Sustainable Development Program Company (SDPCo) it established in Singapore.¹

Geoff Evans, director of the Mineral Policy Institute in Sydney, has described the new trust company as a "poisoned chalice" because it relies on the continued operation of the mine, including the disposal of 80,000 tons of mine tailings per day into local rivers, to pay for development programs. However, the primary purpose of the trust is to provide BHP Billiton and the Papua New Guinea government with indemnity from claims relating to losses from pollution or damage to the environment as a result of the mine's operation. The Mining Act limits their liability to the value of the trust, although it is unclear whether the economic returns from BHP Billiton's shares in the mine are sufficient to offset the damages. A cost-benefit analysis of this relationship was commissioned by the Papua New Guinea government and completed in 2001, but the results have not been