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The killing of the Fly: State-corporate victimization in Papua New Guinea

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Abstract

Over the past fourteen years, the Ok Tedi mining project run by BHP in Papua New Guinea has caused extensive damage to the environment by discharging untreated cyanide, copper, cadmium and substantial quantities of sediment into surrounding river systems. In this paper, we consider whether the concept of state-corporate crime might aid analysis of the way the relationship between BHP and the national government resulted in damage to the Fly; second, we examine how this case study might contribute to our understanding of state-corporate crime.

The killing of the Fly: State-corporate victimization in Papua New Guinea

...if there is blame to be apportioned (or credit) then the State and OTML share it. (Jackson 1993:160)

Introduction

Over the past fourteen years, the Ok Tedi mining project in the Western Province of Papua New Guinea (PNG) has caused extensive damage to the environment by discharging untreated cyanide, copper, cadmium and substantial quantities of sediment into the surrounding river systems. As a result of this pollution the lives of thousands of villagers – people who rely on the river and adjacent lands for their subsistence – have been severely affected. A writ lodged in 1994 in the Supreme Court of Victoria by a group of these villagers alleged that Australia's largest mining company, Broken Hill Pty Co Ltd (BHP) was responsible for this pollution as the largest partner in and sole manager of the mine.¹ The case was settled out of court in 1996, with BHP paying compensation and legal costs. Nevertheless, the events that led to the case suggest that any credible analysis of the causes of the damage must extend well beyond the actions of BHP and consider the complex nexus that existed between 'The Big Australian' corporation and the PNG government. As part of this relationship, the PNG government contributed to the damage to the Fly River system by deliberately allowing the BHP-led consortium to evade the State's environmenta laws.

We have two objectives in writing this paper: first, we consider whether reference to the concept of state-corporate crime might be helpful to an analysis of the way the relationship between the mining company and the Port Moresby government resulted in the damage to the Fly; second, we examine how this case study might contribute to the development of criminology's understanding of state-corporate crime.

The study of state-corporate crime

Criminology has largely failed to look at state crimes in any disciplined analytical manner. There are at least four major reasons for this failure: first, state crime is particularly complex; second, it is furtive (Barak 1990); third, there has been a tendency for criminologists to be co-opted by the state as technocratic agents of social control (Cohen 1988); and finally, the existence of state crime has been ideologically masked (Mathiesen 1974; Barak 1991; Tunnell 1995). Part of the explanation for this masking lies in the role the state itself plays in defining crime (Kauzlarich et al. 1992; Cohen 1993). Consequently, a criminology that seeks to bring the state into its domain of study has to develop an understanding of the range of ways that the state, its various institutions and agents become entangled with crime as victims and offenders, primary and secondary definers, distributors of punishment and compensation. In each case, criminologists should document the crimes, delineate categories, establish causation and suggest forms of crime control (Israel 1998).

Increasing concern with the state played an important part in the new, critical, radical and Marxist criminologies that emerged in the 1960s. Since then, work by criminologists on state crime has proceeded in several different ways. Crimes have been listed (Chambliss 1989; Barak 1991; Kramer 1992), causes reviewed (Fattah 1989; Harff and Gurr 1989) and techniques of abolishing, combating, controlling, decreasing, minimising, preventing and resisting state crime have been identified (Ross 1995). Various typologies have also been developed. For example, David Friedrichs (1995) considered the range of illegal activities that occur within the context of government. He distinguished between political crime (which was directed against the state from outside the apparatus of the state), political white collar crime (which was directed against the state from within the apparatus of the state), state-organised crime (crimes undertaken by agents of the state in the interest of the state) and state-corporate crime. This last category, state-corporate crime, offers a new focus for criminologists.

The term seems to have been devised by Ronald Kramer and Raymond Michalowski as late as 1990 and was redefined by Aulette and Michalowski to mean:

¹BHP v Dagi [1996] 2 VR 117, 15 December 1995, Supreme Court of Victoria.

illegal or socially injurious actions that result from a mutually reinforcing interaction between 1. policies and/or practices in pursuit of the goals of one or more institutions of political governance and

2. policies and/or practices in pursuit of the goals of one or more institutions of economic production and distribution (1993:169)

Investigation of state-corporate crime rests on the premise that on the one hand, in order to operate, the modern corporation requires a particular legal, economic and political infrastructure which is provided by governments; on the other hand, governments in capitalist states depend on corporations to supply goods and services, provide an economic base and support government policies. In some cases, this relationship may facilitate criminal activities. As a result, the study of state-corporate crime links and fills a gap between the studies of corporate crime (with their investigation of organizational deviance within a corporation) and studies of 'state-organised crime', the examination of crimes resulting from the actions of government organizations (Chambliss 1989).

The concept of state-corporate crime has been explored by American criminologists through the Challenger space shuttle explosion (Kramer 1992), a fire in the Imperial Food Products chicken processing plant in Hamlet, North Carolina (Aulette and Michalowski 1993), the production of nuclear weapons (Kauzlarich and Kramer 1993) and in the more general area of 'crimes of the capitalist state against organised labor' (Tunnell 1995). This small body of research on state-corporate crime delves into areas where, for various reasons, oversight of corporate and/or state institutions by independent bodies has been curtailed. For example, in the Challenger case study, Kramer noted that the American Federal government body involved, the National Aeronautics and Space Administration, had only ever been subject to self-regulation. This self-regulation had been entirely inadequate - indeed at two key sites safety personnel had been placed under the supervision of the very offices and activities whose work they were to monitor (President's Commission 1986). Kauzlarich and Kramer's work on the nuclear weapons production complex in the United States also found that the Department of Energy and the private corporations that contracted with the Department had been allowed to work in extreme secrecy, unfettered by the regulations that had governed the civilian nuclear industry. Again, Aulette and Michalowski's research on the death of 25 workers at a chicken processing plant in North Carolina uncovered 'an interwoven pattern of regulatory failure on the part of several state and federal agencies' (1993:166) that allowed the company's management to continue violating basic safety regulations in search of corporate profit.

We would like to make two observations about the state-corporate crime literature. First, the definition of state-corporate crime adopted by Aulette and Michalowski covers all socially injurious acts including those that are not defined by the local jurisdiction as crime. We do not subscribe to the view that crimes should be defined as actions that breach local (Tappan 1947; Sutherland 1949; Bohm 1993) or international (Schwendinger and Schwendinger 1970, 1975; Kauzlarich, Kramer and Smith 1992) criminal laws. Instead, we view definitions of crime as dynamic rather than static, reflecting not only changes in the law but changes in attitudes towards various forms of acts and omissions. In this sense, societies create crime because they construct the rules whose transgression constitutes crime. The state is a major player in this process and this has left any strand of criminology that is reluctant to challenge state definitions of crime vulnerable to charges of co-option. As Stan Cohen argued 25 years ago, we believe that criminologists should recognise the political nature of their subject matter and start to work with topics that have been ignored by most researchers:

Damage, victimization, exploitation, theft and destruction carried out by the powerful are not only not punished but are not called 'crime'. These are matters intimately concerned with questions of values, political conflict and power. (Cohen 1973:624)

However, we need to be careful. We may not like what various governments get up to, but this does not always make what they do criminal (Sharkansky 1995).

Although we can see the value of using the term 'state-corporate crime', we note that adopting such a term in several of the contexts that have been investigated so far requires criminologists to defend the use of the term 'crime' in a manner that has not yet been properly developed in the state-corporate crime literature. This work has been attempted in other areas (Kramer 1985; Michalowski and Kramer 1987; Muncie 1996), however for the purposes of this paper we are willing to propose what might be a slightly less tendentious concept, that of *state-corporate victimization*. We have done this for an important methodological reason: we have not visited Ok Tedi nor have we been to the rest of PNG. We have also not interviewed key players in the decision-making processes that we analyse. Our argument is therefore entirely dependent on an analysis of a wide range of conflicting secondary sources.

Second, use of the concept of state-corporate crime seems to have been limited to the United States. There seems little reason to believe that the concept might not be of value in other countries. For example, Australian criminologists might care to apply it to the effect of Agent Orange on, among others, Australian troops in Vietnam (McCulloch 1984; Wilson 1994), and the mining of blue asbestos at Wittenoom in Western Australia (Hills 1989). However, in the second part of this paper we want to use the concept to examine the very particular kinds of relationships that have been created between multinational corporations and the governments of developing countries (Ott 1985; Gladwin 1987; Pearson 1987; LeVine 1989; Dunning 1993; Muchlinski 1995). We argue that the circumstances that resulted in environmental damage to the Ok Tedi, its environs and subsequently to the people of the Fly River region of Papua New Guinea also provide an example of state-corporate victimization.²

State-corporate victimization and the killing of the Fly

BHP and Ok Tedi

Western mining companies first discovered major ore deposits in the Star Mountains of PNG in 1968. Negotiations between the PNG government and one mining corporation, Kennecott, broke down in 1975 over tax and arbitration provisions (Jackson 1982; Pintz 1984) and the government approached several other mining corporations in an attempt to find new investors. One of these companies was the Australian mining giant, BHP. BHP was already the second largest company in PNG after Bougainville Copper, operating a range of manufacturing and distributing subsidiaries (Mountjoy 1984; Pintz 1984) and maintaining close links with leading PNG politicians (Jackson 1982). In 1976, an agreement was signed between the government and a subsidiary of BHP allowing the company to develop a proposal to exploit the ore body at Ok Tedi.³

In 1980, the government allowed a BHP-led consortium to develop the mine.⁴ The local indigenous people, the Wopkaimin, agreed to lease communally owned land to the consortium in exchange for compensation, a share of royalties, offers of employment, and the establishment of educational, social and medical facilities (Hyndman 1994). This land represented 20 per cent of the local hunting grounds (Maunsell and Partners 1982). Hopes were high for Ok Tedi. The price of gold boomed and prospects for copper seemed favourable. The project was described by the Prime Minister of PNG, Sir Julius Chan, as a 'pot of gold at the end of the rainbow'.⁵ By 1984, the Ok Tedi mine had started producing gold. Copper production began in 1987. The copper concentrate was transported in slurry form via a 160 kilometre pipeline to a filtering facility sited at Kiunga on the bank of the Fly River. From there, barges transported the concentrate 850 kilometres to a bulk handling silo vessel in the Gulf of Papua. Concentrates were sold on medium and long term contracts to smelters in Japan, Finland, Germany, South Korea and the Philippines. By the mid 1990s, after Amoco Mineral Corporation had sold its shares, BHP had been able to consolidate its position in Ok Tedi Mining Limited (OTML) by taking 52.6 per cent equity, leaving the Canadian company Inmet Mining Corporation (a subsidiary of the German company, Metallgesellschaft) with 17.4 per cent and the PNG government with 30 per cent. Ok Tedi was producing 350,000 ounces of gold and 200,000 tonnes of copper annually,⁶ with export sales in 1994/1995 of A\$980 million,⁷ and annual profits of about \$250 million.

However, it had been a long hard struggle for BHP. Richard Jackson, an Australian geographer, was a member of several PNG government committees that planned the development of Ok Tedi. He concluded that, until 1988, the project had proved to be an 'unmitigated disaster' for the consortium (Jackson 1993:168). Indeed,

²PNG has not attracted much attention from criminologists. Australia has however sent out 'visiting experts' to comment on local conditions (Boehringer and Giles 1977). Two early collections were complied by Biles (1976) and Clifford et al. (1984). More recent research has been conducted on rascals (Harris 1988), violence against women (Strathern 1985) and law and order problems (Morauta 1986; Dinnen 1986, 1993).

³Mining (Ok Tedi Agreement) Act, 22/3/76. At the beginning, the consortium comprised BHP's subsidiary Dampier Mining Company, Amoco Corporation, and Metallgesellschaft AG, DeGussa and DEG of West Germany. Subsequently, the PNG State took up a 20 per cent shareholding in the project. The other shareholders were BHP (30 per cent), Amoco (30 per cent), Metallgesellschaft (7.5 per cent) and DEG (five per cent).

⁴Mining (Ok Tedi Supplemental Agreement) Act, 26/6/80.

⁵Quoted in Jackson (1982:148).

⁶"Aurient Resources Announcement" Reuters Financial Service, 4/2/97.

⁷"Focus – Australia's BNP Settles Mine Dispute with Villagers". Reuters Financial Service, 11/6/96.

...the project's performance provided overwhelming evidence that multinational companies are by no means as omniscient or as fiendishly clever as they are usually depicted but are capable of the same lack of foresight and blessed with the same proclivity to create monumental stuff ups as everyone else. (1993:169)

The costs of construction had been badly underestimated by the consortium. The ore deposit was situated in a seismically active part of Western Province at an elevation of 2,440 metres above sea-level on Mt. Fubilan, a steeply sloping, jungle-clad mountain 850 kilometres northwest of Port Moresby and 15 kilometres from the Papua New Guinea/Irian Jaya border. The mountain lay in one of the wettest places in the world and was sacred to the local Wopkaimin people (Hyndman 1994). From the beginning, the terrain and climate seemed to conspire against BHP, inhibiting the completion of necessary infrastructure projects. First, in 1982 the Fly River dried up making it necessary to airlift construction equipment into the area. Second, the company lost \$US89 million in 1983 when a landslide forced it to abort the construction of a hydro-electric facility at Ok Menga. Finally - and crucially - the plans for a dam to be built to store waste discharge were abandoned. The fine material which is left after the ore has been processed is called tailings. Under OTML's original tailings disposal plan, the PNG government had made it conditional that a dam be built for waste discharge commonly associated with mining. Plans for a dam appeared to be thwarted in January 1984 when 50 million cubic metres of hillside slid into a stretch of the Ok Ma valley burying the construction site (Hyndman 1987).⁸ OTML lost a further \$US64 million as a result of this. The total cost of developing the mine eventually grew to \$US1,400 million over the eight-year period between 1981 and 1989.

BHP's problems were not only financial. There were also political difficulties. In 1985, the Somare government closed the mine for a month and revoked OTML's permit to dump its wastes. It was concerned that OTML would abandon the copper deposits after gold mining had finished. To allay the government's fears, OTML agreed to build a copper processing plant two years earlier than planned. The loser in this deal was the environment. OTML's management used its concession over the copper plant to lever a change in its agreement with the PNG government over the construction of a new tailings dam.⁹ A new Supplemental Agreement allowed the discharge of tailings directly into the Ok Tedi as an interim measure. Between 1984 and 1989, OTML was given virtually free rein on waste dumping into the Fly. The quantity of tailings discharged into the Ok Tedi by OTML was initially 30,000 tonnes daily but grew through the period (Burton 1997b). Although the government started to regulate the levels of discharge in 1989, by 1993 company estimates of the tailings were as high as 80,000 tonnes each day (Eagle 1993). As a result the river bed rose between five and ten metres (Wau Ecology Institute 1991; Ok Tedi Mining Limited 1993) and the river itself flooded causing the loss of cultivated lands and thousands of trees. The effect on the hundreds of villagers that relied on the river and adjacent lands for their subsistence was enormous. Previously fertile soils that were used for cultivating staple foods were replaced by thick grey sediment (King 1997).

The extraction of gold and copper from the mine also allowed substantial quantities of chemicals and poisonous metals to contaminate the river system. For example, tailings discharged into the river system contained significant levels of copper, a metal that has proved to be one of the most dangerous to aquatic ecosystems; wide areas of land adjacent to the copper pipeline were contaminated when the line fractured releasing slurry; in 1984, a series of 'ecocide disasters' (Hyndman 1987:28) began when a barge carrying containers of sodium cyanide and hydrogen peroxide to the mine lost its cargo in June. One container burst open setting free 180 drums. Most of these drums were recovered. However, for economic reasons the other containers were not retrieved (Hyndman 1987; Townsend 1988; Ongwamuhana 1991). 140,000 litres of cyanide were lost in the river.¹⁰ Later that month, 1,000 cubic metres of untreated tailings with a very high concentration of cyanide were discharged into the river when a by-pass valve was accidentally left open. The mistake killed hundreds of fish, prawns, turtles and crocodiles. The OTML management tried to ignore the incident and only acknowledged that they had been at fault when

⁸The Mining Journal, 8/6/84 p.379. It seems that the company had failed to gather sufficient geological knowledge of the area (Townsend 1988; Jackson 1993). Townsend believed that OTML were never serious about building a dam: the landslide was a direct result of the company's activities; according to Bechtel, constructors used by OTML, the dam could have been completed 200 metres upstream from the original site; and the company used the landslide as an excuse not to complete the project (cited in Weissman 1996).

⁹"Ok Tedi Accord" *The Mining Journal*, 7/3/86. p.165.

¹⁰"Ok Tedi Compromise?" *The Mining Journal*, 15/3/85. p.169.

dead animals floated 100 kilometres downstream to Ningerum (Mowbray 1988; Townsend 1988). No compensation was paid to the villagers at Ningerum (Burton 1997b).

Throughout this period, the OTML management claimed repeatedly that the mine had not had much impact on the Lower Ok Tedi,¹¹ that total sediment loads were well 'within the ranges measured in other natural river systems' in PNG (Ok Tedi Mining Limited 1992:7), and that the company adhered to the same standards of conduct that its parent company, BHP, followed in Australia (McEachern 1995). OTML also maintained that the company had not breached the standards that had been agreed with the government (O'Callaghan 1993). The government and the mining company had agreed on a set of maximum levels of discharge for copper and cyanide. However, these levels were about 10 times higher than the prevailing rates in western countries. In addition, in developed countries the monitoring point for discharge would have been placed within metres of the discharge outlet. However, at Ok Tedi the monitoring point for compliance was located 100 kilometres downstream from the mine. As one exemployee of BHP told journalists, 'that meant that effectively a hundred kilometers of river was sacrificed to the mine'.¹² Later on, the point of compliance was moved further downstream, beyond the point at which the Ok Tedi joined with the larger and more sluggish Fly River. In 1993, a report by the Australian Conservation Foundation accused the mine of rendering the first 70 kilometres of the Ok Tedi 'almost biologically dead' (Rosenbaum and Krockenberger 1993:9). BHP responded by placing pressure on the Australian government to withdraw funding from the Foundation.¹³

The Ok Tedi leads via the Fly into the Gulf of Papua, 800 kilometres away. Even at this distance, the impact of the mining project on the life styles and future opportunities of the local population appears to have been significant. Fish stocks and species composition in the Fly have been altered (Smith and Morris 1992). One landowner¹⁴ who lived at the mouth of the Fly River told an Australian journalist:

...our lives depend on the river system... We gather, we go out fishing, gardening and so on. So totally our lives depend on the river system. And then what is happening now is, we are living in fear. Because we are experiencing a lot of changes in the river system. It has changed colour, from clean to milky colour... we are losing food. We have lost our drinking water. This is what we are experiencing at the mouth of the Fly River. (Gabia Gagarimabu)¹⁵

OTML had provided compensation to the local population. Royalties of 1.25 per cent were levied on exports from the mine and these were divided between local landowners (30 per cent) and the Provincial government (70 per cent) (Rosenbaum and Krockenberger 1993). However, these royalty and compensation payments were distributed very unevenly. Jackson (1993) estimated that the traditional rightholders of the land covered by the Special Mining Lease would receive about K2500¹⁶ per person per annum between 1991 and 1995, rightholders of land held under the Tailing Lease would receive K200 while those living further down the Ok Tedi and Fly rivers who could legitimately expect compensation from OTML was 30 times greater than the number of people who were actually receiving it from these schemes. In 1990, the company responded by setting up the Lower Ok Tedi-Fly River Development Trust to assist villagers with basic needs, though the work of this Trust was not always viewed charitably (Melanesian Environment Foundation 1991; Jackson 1993; Rosenbaum and Krockenberger 1993; Burton 1997b; Filer 1997).¹⁷

The promises that the consortium made to local villagers about employment have not always been kept. Over half the Wopkaimin men were employed during the initial construction of the mine, but

¹¹OTML PA/03/85-5:25. Cited in Hyndman (1987).

¹²Michael Abramski quoted in "The Money or the Dam?" Radio National Background Briefing, 28/5/95 http://www.abc.nat.au/rn/talks/bbing/bb950528.htm>. See also Kirsch (1989).

¹³"The Money or the Dam?" Radio National Background Briefing, 28/5/95 http://www.abc.nat.au/rn/talks/bbing/bb950528.htm

¹⁴In the Western Province, the term 'landowners' usually refers to those people who are 'traditional rightholders' of the land.

¹⁵"The Money or the Dam?" Radio National Background Briefing, 28/5/95 http://www.abc.nat.au/rn/talks/bbing/bb950528.htm

¹⁶The PNG currency is the Kina (K).

¹⁷The Provincial government has received special grants to finance projects of benefit to communities along the Ok Tedi and the mining company has allocated over \$2.5 million per annum to the Ok Tedi-Fly River Development Trust.

later jobs became far more scarce. Indeed, the mine became known to the locals as 'the place with no work' (Hyndman 1988:27). After the local workers went on strike in 1983 (Hyndman 1987), OTML altered its recruitment practices so that in 1995 just under one-third of the 1900 person work force came from Western Province. According to the mining company, about 60 local businesses have been supported by the mine and these in turn employed about 1000 people (BHP 1995; Ok Tedi Mining Limited 1995).

Villagers from the affected areas and their political allies attempted to secure additional compensation from OTML or force the company to build a tailings dam. In 1992, they complained to the Rio Environment Summit and the International Water Tribunal (Jackson 1993). The Tribunal, a watchdog body funded by European governments, investigated the complaints and found that the mine had no satisfactory waste disposal system and that this had caused the flooding of food gardens and disruption to fishing. It also reported that the company had used its foreign revenue power to influence the PNG government to make exceptions in the application of the law, to the detriment of the environment and the livelihoods of local people (Davis 1992b). The villagers also approached a Melbourne law firm, Slater and Gordon, who agreed to represent 500 clans of nearly 30,000 people along the river system on a fee deferred basis.¹⁸

In the face of possible legal action, BHP defended its record at Ok Tedi in various ways: first, on the basis that the Australian lawyers were challenging PNG sovereignty by taking the case to an Australian court;¹⁹ second, by claiming that accounts of damage had been greatly exaggerated, that the damage was not likely to be permanent (Uiari 1995) or that it was comparable to that caused by natural events. When BHP Minerals' Chief Executive, Jerry Ellis was questioned by the *Australian Financial Review* about the allegations of environmental pollution, he claimed that BHP had done nothing wrong because the company had operated in compliance with the laws of Papua New Guinea. He denied any statutory obligation to construct a tailings dam, and alleged that compensation had been paid to the plaintiffs and accepted by them thereby discharging any obligation under the Ok Tedi Agreement. Moreover, he rationalised the activities of the project by stating that Papua New Guineans lived longer and had lower infant mortality rates as a direct result of the venture and that the increased benefits of education, business and infrastructure development were significant (Callick 1994b). Commenting on the events at Ok Tedi, McEachern suggested that most mining corporations saw their relationship to the environment in terms of 'what they can get away with' (1995:64). At Ok Tedi, some of the actions of BHP seemed to confirm this.

In May 1994, four proceedings were brought against BHP in the Supreme Court of Victoria by or on behalf of 73 people who claimed to have been injuriously affected by discharges from the Ok Tedi mine. Writs for the balance of the 500 clans were lodged in the National Court of PNG in September 1994 (Moshinsky 1995). The Supreme Court writ sought A\$2 billion of exemplary damages to build a tailings dam to hold waste material and water from the mine, A\$2 billion in compensation for the villagers, and an injunction to stop further mining until a dam was constructed. The case caused BHP considerable embarrassment and the publicity threatened the company's ability to negotiate mining leases in other parts of the world (Howarth 1996, van Leeuwen 1996). It also exposed significant problems in the development and coordination of its corporate affairs strategy and in its internal communications between corporate headquarters in Melbourne, the Minerals Division and OTML in PNG (Davis 1996a).

BHP fought the claim in the Victorian court for a year, then announced it had reached agreement with the PNG government to offer \$110 million in compensation. This offer was rejected by the claimants and in an out of court settlement reached in 1996, BHP agreed to pay compensation of \$110 million to villagers with an additional \$40 million going to those villages on the Lower Ok Tedi most affected by the mine. BHP also undertook to rehabilitate affected areas, examine other options for disposing of tailings and pay Slater and Gordon's legal costs of \$7.6 million (Kaye 1996). Finally, as part of the settlement, the PNG government also agreed to hand over a 10 per cent stake in OTML to a trust that would operate on behalf of the villagers.²⁰

¹⁸Slater and Gordon had acted as lawyers for Wittenoom asbestos miners, medically-acquired AIDS sufferers, Dalcon Shield and breast implant users, and passive smoking litigants.

¹⁹"Compo Claim for Ok Tedi Could Cost K6 Billion" *The Times of PNG*, 5/5/94, p.1.

²⁰In August 1997, the PNG lawyer acting for the local landowners claimed that the were government attempting to modify this agreement by diverting the dividends from this stake to pay BHP for the purchase of the shares and by using the interest from the equity to pay for general compensation for people lower down the river (Kone 1997).

The settlement was unusual because, as part of the terms, a government that was not being sued agreed to contribute towards the compensation of the villagers by handing over the equivalent of ten per cent of the company. In the next section, we examine how the PNG government became so entangled in the problems caused by the mine.

PNG and Ok Tedi

Foreign investors dominate a PNG economy which has remained heavily dependent on the export of unprocessed commodities although the emphasis has shifted from copper to gold and then petroleum. Mining in PNG is mainly carried out by large multinational corporations, often Australian-based, whose political clout in PNG and in other parts of the developing world has been greater than among most developed nations (Chalmers and Paliwala 1984). Until 1989, per capita incomes in PNG remained low and the country experienced little economic growth (Fairbairn 1993). In 1989, the situation deteriorated even further when prices fetched by the country's major agricultural exports fell. The difficulties were exacerbated by a civil war on the island of Bougainville which closed the country's most important copper mine which had been run at Panguna by RTZ-CRA (now known as Rio Tinto). In 1991, the economy started to recover largely on the basis of a mining boom (Australian International Development Assistance Bureau 1992). As a result, the relative importance of this sector of the economy increased markedly. In 1982 this sector had accounted for only eight per cent of the Gross Domestic Product. By 1992 the figure had risen to 20 per cent. By 1996, mining and petroleum activities directly accounted for 25 per cent of the country's GDP (Hancock 1997). Export earnings from the mining and petroleum industry had reached K2.25 billion,²¹ which amounted to 68 per cent of PNG's total export earnings.

Following the closure of Panguna, the Ok Tedi mine assumed central significance. By 1991, export sales from that mine accounted for 34 per cent of PNG's total merchandise export earnings for the year, providing all of PNG's copper exports (K443.4 million) and 18 per cent of its gold exports (K111 million) (Australian International Development Assistance Bureau 1992). The mine directly and indirectly provided jobs for 3,700 people and by June 1992 OTML had spent up to A\$414 million on regional infrastructure in the form of education, health, towns, roads, power, airstrips, water systems and communications. PNG also benefited from substantial tax, dividend and other income. In 1996 alone, OTML paid K8.6 million in tax on mine imports, K12.9 million in employee income tax, K55 million in company income tax and K11.39 million to the Provincial government and the landowners at the site of the mining lease.²² In addition, the PNG government had a direct financial stake in OTML. In 1984, this amounted to 15 per cent of equity; by 1994 the government's holding had increased to 30 per cent, providing a profit in 1994-5 of about \$75 million.

As the importance of the mining industry has grown, so the willingness of the government to stand in the way of the further development of the sector has diminished (Garnaut 1981). This shift in government thinking has been particularly acute in the enforcement of its environmental policy. When PNG became independent in 1975, the government adopted a Constitution that proclaimed Five National Goals which included the duty to conserve and use the nation's natural resources and environment for the collective benefit of the nation, and to replenish those resources for the benefit of future generations (Pintz 1987). These principles were partly reflected in agreements renegotiated in 1974 for Bougainville (Faber 1974; O'Faircheallaigh 1982) and in 1976 and 1981 with those companies seeking to exploit the reserves at Ok Tedi (Chalmers and Paliwala 1984).²³

In keeping with a state commitment to conservation, an Office of Environment and Conservation was established in 1974 and the parliament adopted an Environment and Conservation Policy in 1977. Among other principles, the commitment to the environment included specific directives during the development of the state to 'consider economic, social and ecological matters together' by avoiding 'the bad effects on the environment' while 'increasing the quality of life for all our people' and ensuring that 'all people benefit from the use of these resources and not just a few'.²⁴ The government passed a series of environmental laws in the late 1970s which allowed PNG to enforce its environmental policy: these included the Environmental Planning Act, the Environmental Contaminants Act, and the Conservation Areas Acts. These were all passed in 1978, although their implementation was delayed until 1980.

²¹1997 prices: US1 = K1.39; A1 = K0.97.

²²BHP Factsheets. < http://www.bhp.com.au/aboutbhp/factsheets>

²³Mining (Ok Tedi Agreement) Act of 1976; Supplemental Acts of 1981.

²⁴Cited in Government of Papua New Guinea (1986b:44-51).

The enactment of such environmental legislation seemed to suggest that PNG was committed to the co-existence of environmental conservation and economic development (Taylor 1997). However, the development and operation of mining activity appears to have circumvented these principles. Environmental standards for mining have been negotiated on a project by project basis (Australian International Development Assistance Bureau 1994) and specified within enabling legislation. Many of these projects have been criticised by environmental monitoring groups. Activities at Panguna (Applied Geology Associates 1989; Thompson 1990; Minkow and Murphy-Dunning 1992), Lihir (Mineral Policy Institute nd), Porgera (Mineral Policy Institute 1995; Kennedy 1996a), Misima (Carpenter and Maragos 1989; Ongwamuhana 1991) and Kutubu (Mineral Policy Institute nd; Kennedy 1996b) have raised particular questions both about the fair treatment of indigenous people and the damage caused to the environment by mine activities. However, perhaps the greatest attention has been paid by environmental groups to the mining operation at Ok Tedi.

During the mid-1970s, the PNG government was concerned that the Ok Tedi project might cause the same degree of damage to the environment as the Panguna project on Bougainville. The negotiation of the Ok Tedi Agreement took place after the Constitutional Declaration but prior to the enactment of specific legislation to protect the environment. Nevertheless, the 1976 Ok Tedi Agreement entered into by the Somare government required OTML to provide the government with periodic analysis of waste discharges, undertake various pollution prevention measures, and develop a vegetation regeneration program. The government also insisted that a permanent tailings dam be built which would reduce the copper level in the waste discharge by 75 per cent.

The State claimed that this Agreement would provide 'excellent environmental protection'.²⁵ This did not happen, and some of the reasons for the failure have been discussed in accounts provided by two PNG-based public servants involved in the mine negotiations. William (Sam) Pintz was an American minerals economist who worked as a public official and later as a consultant for the Department of Minerals and Energy (DME) between 1977 and 1982. In 1984, Pintz wrote a book about the evolution of the Ok Tedi project claiming that the PNG bureaucracy had been organised in such a way that it had been unable to deal effectively with technical, social or ecological matters. Pintz elaborated on some of these issues in a further article published in 1987. In 1988, another account of the operation was provided by Bill Townsend, another employee of the DME. Once again, Townsend claimed that the government had failed to create the organizational structures necessary to sustain any serious attempt to protect the environment.

At the beginning of the project, the government realised that the social and ecological consequences of the proposed mine would be an important political issue (Pintz 1987). However, it failed to ensure that the potential environmental impact of mining would be taken seriously. Instead government regulation of environmental protection was characterized by 'benign neglect' (Pintz 1987). Although the 1976 Agreement specified that the consortium should undertake environmental impact studies, the amount of money to be allocated to such studies was limited to A\$150,000, a totally inadequate amount for a project as large as Ok Tedi (Jackson 1984, 1993; Pintz 1984; Townsend 1988; Davis 1992a). The amount spent on research was later increased to A\$1.3 million (Burton 1997b).

However, the Environmental Impact Statement that OTML eventually provided was seriously deficient. It was roundly condemned by the environmental consultant working for the government (Buckley 1984) because it relied on rainfall and stream flow data that had been collected over a very short period, provided minimal information about the chemical and physical nature of the tailings, and rested on a limited survey of the natural environment. These shortcomings were noted by the government and ignored. As Jackson concluded – '(the implication was clear: environment was not considered to be as important a consideration as the need to raise capital for the national exchequer' (1984:86).

The State did establish a Physical Environment Sub-Committee in 1977 to consider the possible impact on the environment if the mine went ahead. The committee recommended that the mining company should pay for a scientist to supervise environmental aspects of the project. The scientist would be appointed by the government, live on the mine site and report to the Minister. However, this recommendation was opposed by OTML who demanded total control over the scientist (Pintz 1987) and the proposal was not implemented (Jackson 1993). Instead, OTML employed its own scientists. Although the data that these staff members gathered might have been quite valuable – it was the best funded environmental monitoring program in PNG employing the most highly qualified staff and using the best equipped facilities in the country – the corporate management maintained control over the dissemination

²⁵Quoted in Hyndman (1987).

of their findings (Townsend and Townsend 1996), stating results 'in a manner intended to allay community fear about environmental changes' (Burton 1997b:51).

After environmental legislation was enacted in 1978, the Office of the Environment argued that all existing mining projects – such as Ok Tedi – should become subject to these general environmental laws, even if the agreements that governed the projects already contained environmental provisions. However, the Office of the Environment had been set up as part of the Department of Natural Resources. It suffered from under-funding and under-staffing and was unable to carry its argument in the face of opposition from more powerful departments such as Finance, Planning and Minerals and Energy who, among other things, were concerned that imposition of environmental laws on OTML might delay the development of the mine (Pintz 1987). Meanwhile, little attention was paid to the social or political consequences of the project.

In 1981 the Chan government decided to establish an elaborate structure to co-ordinate its approach to Ok Tedi. It envisaged a division of responsibility between three tiers: political discussions would be controlled by senior ministers; the government departments involved would be co-ordinated by a committee of public servants; and a new company, the Mineral Resources Development Company (MRDC), would operate at the Secretarial level and manage the state's interest in the mine.

The state's team was drawn from the departments of Minerals and Energy, Finance, Justice and the National Planning Office. These people were very thinly stretched (Hyndman 1994), and while their departments could commission analysis and negotiate sophisticated agreements, the bureaucracy lacked the administrative reach to carry out its environmental policy in the provinces, monitor environmental damage, impose minimum standards or enforce regulations (Pintz 1984; Government of Papua New Guinea 1986a; Ongwamuhana 1991; Hyndman 1994). Moreover, while several of the public servants involved in negotiations with OTML appear to have been committed to the protection of the environment, none of them represented a department that saw environmental protection as its core responsibility (Townsend 1988).

One key part of the planned bureaucracy was never completely established. The MRDC was supposed to have a crucial part in managing and co-ordinating the state's role. However, it failed to recruit its full complement of seven staff (only two professional staff were hired) and was not given authority to make decisions or direct activities. In 1983, the MRDC was stripped of its organizational independence and placed within the DME. Its authority was downgraded and it was denied direct access to senior policy makers. Instead of working at the Secretarial level, it operated three steps below that. As a result, the MRDC was rarely given the opportunity to brief ministers and never appeared before the National Executive Council. Instead, it reported to the Ok Tedi Co-ordinator in the DME who reported to the First Assistant Secretary and then the Secretary. Far from giving the MRDC an independent voice, the DME supported or vetoed MRDC recommendations according to the DME's own needs (Townsend 1988).

As we have already pointed out, the Ok Tedi project was exempted from other national environmental legislation. Until 1993, this meant that responsibility for environmental regulation fell to the DME and then the Department of Mining and Petroleum rather than the Department of Environment and Conservation (Rosenbaum and Krockenberger 1993). As a result, the DME had responsibility for a range of conflicting roles: the Secretary of that department was one of the government's representatives on the OTML Board – in this role he was advised by the Division of Policy and Planning; other members of the DME also had statutory responsibility for enforcing standards and regulations associated with mine safety (Chief Inspector of Mines) and national water resources (Director of the Water Resources Bureau). The concentration of decision making within this one department was to have serious consequences. The decision making structure within the Department was biased against its technical staff. When members of the technical staff employed in the Mines Division, Water Resources Bureau, the Geological Survey or even the MRDC came into conflict with administrative and political recommendations from Policy and Planning, technical recommendations were ignored. This state of affairs was encouraged by OTML. The mining company established offices in Port Moresby and created direct links with the Secretaries of Finance and of Minerals and Energy, completely circumventing the bureaucracy (Townsend 1988), though Jackson (1993) suggests that direct lobbying of politicians sometimes had the opposite effect to that intended by the company.

A line of technical disasters followed: the hydropower and tailing dam projects were started without adequate knowledge of soil stability, against the recommendation of MRDC's civil engineer and in the face of open hostility between the management of OTML and its main contractor for construction (Jackson 1993); the recommendations of a 1983 Task Force that construction of a tailings dam should be planned properly were not followed; the decision to stop construction of the Ok Ma tailings dam occurred in the face of contrary advice from Australian Mineral Development Laboratories – environmental

consultants employed by the state – as well as the Chief Inspector of Mines, the Director of the Bureau of Water Resources, and the MRDC; finally, warnings by the MRDC about cost overruns were ignored.

While the PNG government initially required OTML to build a tailings dam, it was willing to sacrifice the dam to ensure exploitation of the copper ore. In addition, it failed to pay adequate attention to the discharge of copper from the waste dumps and slurry pipeline. The First Supplemental Agreement between the PNG government and OTML allowed the mine to discharge tailings directly into the Ok Tedi River. Seven subsequent Supplemental Agreements to the same effect were negotiated between OTML and the PNG government up until 1995. By 1984, the government's own independent report found that copper concentrations in the river were:

10,000%, two orders of magnitude, over reasonable criteria; 7500% over predictions for the original tailings dam; and 650% over the maximum total from all sources predicted in the original environmental study and rejected by the state as excessively high. (Australian Mineral Development Laboratories 1984:42)²⁶

In 1989, another report prepared for the government by independent consultants, Applied Geology Associates of New Zealand, concluded that continued discharge of wastes at the same rate would result in an:

80% fish kill to the Middle Fly in the immediate term between 1990-1993 and a 60% fish kill for the life of the mine. The severe effect (60%) would continue down to the delta as well as into the Gulf of Papua and possibly the Torres Strait.²⁷

The new Namaliu government declared that it was going to put a stop to this: 'we cannot and will not allow the wholesale destruction of aquatic life in the Fly River.'²⁸ However, like its predecessors, the government had to balance economic benefits against environmental costs. It had very few choices: it could enforce measures which minimized damage to the environment cutting deeply into the mine's profits; it could close the mine because of the damage being wrought to the environment; or it could agree to the mine operating indefinitely without a tailings dam. It chose the last option. As the Environment Minister Jim Yer Waim, someone who had initially opposed the dumping of tailings into the river, said: 'In a country like PNG, with a big demand for social services and infrastructure, we just can't forgo the harvesting of a resource like Ok Tedi'.²⁹

Not only did the PNG government place economic development – the creation of employment opportunities, provision of infrastructure, and promotion of the rural sector – over environment conservation, but it also failed to provide adequate funding for the agencies charged with monitoring and regulating environmental degradation. The environmental conservation enforcement agencies within PNG such as the Department of Environment and Conservation and the DME have been subject to severe resource constraints so the actual monitoring function of those agencies has been left almost entirely to the mining companies (Pintz 1987, Taylor 1997).³⁰ In the case of Ok Tedi, the Australian Conservation Foundation (Rosenbaum and Krockenberger 1993) reported that because there was no regular independent verification of the monitoring or the interpretation of data, OTML had not been held publicly accountable for its environmental performance. In addition, the PNG government failed to ensure that the money raised from the mine was actually spent on economic development.

One way in which the state government tried to reduce interference in the work of the mine and stimulate development was by involving the Provincial government. In 1991, a tripartite agreement was signed by the National and Provincial governments and the local landowners. This redistributed royalty payments from the mines. In addition, the Provincial government would receive a Special Support Grant from the National government which would be set at one per cent of the value of the mine's annual output (Filer 1997). This money was to spent on provincial infrastructure. Unfortunately, much of this money was misappropriated (Burton 1997a) and used as slush funds by local politicians and in 1992, the

²⁶Quoted in Hyndman (1987).

²⁷Quoted in Post Courier, 27/7/89.

²⁸Post Courier, 6/4/89.

²⁹"Ok Tedi Mine Destroying PNG Environment – German Politicians" Reuter Library Report, 26/7/91.

³⁰In 1994, the Department of Environment and Conservation had a budget of just K3 million and a staff of 220 of whom only 11 were directly involved in regulating the mining and petroleum industries (Taylor 1997).

provincial government was suspended on charges of financial mismanagement (Filer 1997). However, Burton (1997a) places part of the blame for the waste of these resources on the complacency of the central government.

Although successive PNG governments have sided with the prospect of development at the expense of conservation, there has been some dissent. According to Richard Jackson, the sharpest critics of the environmental record of Ok Tedi in its early years were public servants working in the PNG government (Jackson 1993).

The actions of the state in facilitating the actions and inactions of OTML represent a response to a clash of two espoused ideologies – development and conservation. The PNG state found itself in the impossible position of regulator (environmental control being just one aspect of State regulation), equity participant in mining companies, and receiver of tax revenue from mining operations (Ongwamuhana 1992:142).

When work on the tailings dam was destroyed, the PNG government knew that OTML would be unlikely to continue operations if it were forced to channel millions of dollars into re-construction. The loss of mine operations would lead to the loss of equity financed from overseas loans together with the loss of substantial projected tax revenue. Moreover, if more stringent environmental protection demands were made, the state would invariably have to bear some of the additional costs as shareholder.

The government traded environmental protection for economic development. It wanted to maintain its international competitiveness as a site for foreign investment. As a result, it chose to allow unrestricted dumping and hoped that the resulting damage would prove to be environmentally and politically tolerable. Marjorie Sullivan, a researcher at the Australian National University, consultant to the mining industry and former professor of geography at the University of PNG, believed that the monitoring of the Fly had been satisfactory, and that the impact of the mine had fallen within the limits agreed to by the Government. She believed that OTML's practices were unacceptable by developed world standards, but not in comparison to other parts of the developing world:

Internationally, people don't throw stuff down the river. But if internationally means other Third World countries where foreign exchange is seen to be more important than a clean environment, people throw mining waste into rivers. (Marjorie Sullivan)³¹

Together BHP and the PNG government sought to block the ability of anyone to question their decision to trade environmental concerns for economic development. As Herb Thompson, a writer on the political economy of PNG, told journalists, the government had little choice but to support BHP:

...their legs are intertwined under the table, and they have been since 1989. The government realised that it absolutely needed Ok Tedi to offset the losses it was taking from Bougainville. And... the BHP management team had said from the beginning that if forced to construct a tailings dam... they would just shut down. And... there's no way that BHP or the government could afford to... make a big payout to land owners...³²

In 1988, the Wingti government ordered the police to suppress a campaign by locals that disrupted the operation of the mine. Angry at the lack of opportunities being offered to them by OTML, militant Wopkaimin had blocked the access road to the mine. The Prime Minister defended the use of force because it was necessary to maintain investor confidence (Hyndman 1988).

In 1989, Western Province MPs and the provincial premier lobbied unsuccessfully for a tailings dam.³³ Parry Zeipi, the Federal Member of Parliament for South Fly, warned the government that if it was not careful, it might face armed insurrection. The Minister and Energy Minister, Patterson Lowa, responded by threatening to wring Zeipi's neck (Jackson 1993). When the government agreed to support BHP's offer of \$110 million in compensation as part of an agreement brokered by the Minister for Mines, John Giheno, Zeipi was Environment Minister. Zeipi opposed the scheme because yet again it failed to insist on the construction of a tailings dam. In 1995, Zeipi was stripped of his portfolio by the prime

³¹Quoted in Davis (1992b).

³²"BHP Accused of Supporting Undemocratic Legislation in Papua New Guinea" Radio National Business Report, Friday, 11/8/95. http://www.abc.nat.au/rn/>

³³*Post Courier*, 27/7/89.

minister, Sir Julius Chan, and moved to the Ministry of Home Affairs, Women and Youth.³⁴ When a local environmental group, the Wau Ecology Institute, brought a case against Ok Tedi to the International Water Tribunal, the PNG government responded by denying research visas to visiting scientists. Foreign Affairs Minister Michael Somare warned the Institute's Director 'to stick to research, and immediately desist from any environmental activism.'³⁵

Government attempts to silence critics intensified after landowners sought legal redress. The Minister for Mines and Petroleum, John Giheno denounced the litigation against BHP as irresponsible and if successful would force a major PNG mine to close to the detriment of PNG and its people. In addition, he claimed that courts outside PNG were not competent to deal with such matters because they did not know local conditions and that compensation was a domestic issue.³⁶ Chris Haiveta, the leader of PNG's parliamentary opposition, was even more forthright. He was reported as denouncing the lawsuit as the work of 'foreign spivs, crooks and carpetbaggers'.³⁷

At first, government action was limited to harassment. In 1995, a National Court judge in PNG held that the acting head of the PNG Migration Service and a junior migration officer had both acted in contempt of court when they deported John Gordon, an Australian lawyer acting for the Ok Tedi landowners.³⁸ Gordon later claimed that the order for his deportation had been issued by the office of the Minister for Foreign Affairs and Prime Minister, Sir Julius Chan, despite the fact that Gordon had been issued with a valid 12 month business visa (Salmons 1995, Gordon 1997).

Then the government, acting in concert with BHP, tried to stop the case going to court. The Eighth Supplemental Agreement contained provisions which would prohibit the commencement or maintenance of compensation proceedings 'before any court or forum'.³⁹ In addition, the Agreement prohibited any person from commencing, maintaining or giving evidence in compensation proceedings. It also stated that no person could challenge the Eighth Supplemental Agreement, once enacted, by claiming that its provisions or some of them, offended against the PNG Constitution. Section Eight of the draft Bill provided that a person who committed a breach of these prohibitions would be guilty of an offence punishable by a substantial fine (K100,000) plus K10,000 a day for each day that the offence continued. This clause appeared to be specifically designed to end the class action.

The Agreement was attacked in an editorial by the Port Moresby-based *Post Courier* as entailing a breach of the PNG Constitution and an attack on the basic rights of PNG citizens.⁴⁰ The government responded by claiming that the Agreement constituted a defence against 'significant social unrest and disharmony' which would result if litigation was allowed to proceed in the Victorian courts, litigation which would be 'contrary to the national interest of PNG'.⁴¹

Late in 1995, the Victorian Supreme Court ruled that BHP had acted in contempt of that court by drafting and preparing a Bill for the PNG government which hindered access to the Supreme Court of Victoria (Moshinsky 1995).⁴² The Bill, drafted by the government with the help of BHP lawyers, sought to make it illegal for landowners to take up compensation claims over major resource projects in foreign courts and rendered them liable to substantial fines. The Bill decreed that the Ok Tedi landowners would be given 60 days to withdraw their case in Melbourne and transfer it to PNG or they would lose the right to take up the case in the country.⁴³ According to the Bill, any judgment handed down by a foreign court would not be enforceable in PNG. Despite a storm of protests, the Compensation (Prohibition of Foreign Legal Proceedings) Act was enacted by the PNG government in December 1995. The Act gave landowners six months to decide between pursuing legal action in Victoria or accepting government

 ³⁴Sean Dorney, Port Moresby. Radio Australia external service, Melbourne, in English 0800 GMT 2/8/95
³⁵Quoted in Minkow and Murphy-Dunning (1992).

³⁶"Papua New Guinea: Papua New Guinea Parliament Blocks Foreign Legal Action on Mining Pollution" Sean Dorney, Port Moresby. *Radio Australia* external service, Melbourne, in English 10.00 GMT 13/12/95.

³⁷*Post-Courier* 5/5/94.

³⁸"Papua New Guinea: Acting Head of Papua New Guinea Immigration Service Guilty of Contempt of Court" Sean Dorney, Port Moresby. *Radio Australia* external service, Melbourne, in English 0900 GMT 13/12/95.

³⁹Quoted in Moshinsky (1995:1115).

^{4011/8/95.}

⁴¹Quoted in Moshinsky (1995:1115).

⁴²The full Supreme Court upheld an appeal by BHP against this finding of contempt on the grounds that private contempt prosecutions were invalid under Victorian state law. In March 1996, the Victorian Attorney-General decided not to pursue public proceedings.

⁴³"PNG Mining Law Challenge" *The Mining Journal*, 18/8/95. p.111.

compensation (Imhof 1996). As the *Post Courier* predicted, the Act faced legal challenge on constitutional grounds.

The pressure was mounting on both parties and matters came to a head in the middle of 1996. In June 1996 – before the end of the prescribed six months period and just three weeks before the constitutional challenge was due to be heard – BHP reached agreement with the landowners who brought the legal proceedings to an end. BHP agreed to fund the already negotiated K110 million compensation package and to meet the legal costs, totalling A\$7.6 million, of the landowners. It also agreed that there would be no effective reduction in the amount payable in the compensation package by the amount spent on any tailing disposal scheme. There was no agreement by BHP to build the tailings dam but the company stated that it was 'committed to finding ways to reduce the amount of tailings' that enter the Ok Tedi and Fly River systems.⁴⁴ In return, the landowners agreed to drop their legal action. The Compensation (Prohibition of Foreign Legal Proceedings) Act remained on the statute books.

There is no doubt that BHP's public image suffered as a result of the litigation. The amount of compensation to be paid by the corporation seemed small beer when compared to OTML's trading profit of \$250.9 million and sales of \$1.02 billion in 1994-5, and BHP's annual revenues of \$17 billion. However, OTML had not yet covered its capital expenditure and it was by no means clear that copper prices would remain at such a high level. Of course, the company avoided any prosecution for criminal activities, which leaves us with the problem of having to justify a criminological analysis of a civil case.

Theoretical analysis

In this paper, we set ourselves two tasks. We wanted to examine whether reference to the concept of statecorporate crime might aid our analysis of the circumstances that led to the death of parts of the Fly River system. We also sought to establish whether an investigation of the Ok Tedi mining project might contribute to the overall analysis of state-corporate crime. In this section, we begin to answer these questions.

One of the basic claims made by those involved in the examination of state-corporate crime is that investigation of the state-corporate nexus can result in a more sophisticated account of criminal activity in particular contexts than might be provided by independent analyses of corporate or state-organized crimes. We believe that this was the case in our examination of the institutional and structural factors that led to social and environmental damage in the Fly River system.

An analysis of the actions of OTML that ignored the role of the government might investigate how the company operated to maximize profits - or at least to minimize losses - by accelerating the process of developing the mine when initial construction fell behind schedule and costs began to escalate. OTML did so by postponing the building of a tailings dam with damaging consequences for the local population and ecosystem. The mining company's response to attacks on its operations falls quite neatly into categories mapped out by Gresham Sykes and David Matza (1957) and Stan Cohen (1993): at first, OTML denied that its mine was having any negative impact on the environment, indeed the company pointed to the benefits that it claimed were being reaped by the local population in terms of transport, health and educational infrastructure. As evidence of damage was amassed by environmental monitoring groups, OTML began to deny responsibility for the damage – these were naturally occurring events, and anyway the company had adhered to every standard set by the government. Throughout the period, the company also sought to silence its critics. While some of its work might be considered to be within the ambit of good public relations, the use of legal threats and political pressure seem to have crossed the boundary of legitimate business practice. In 1996, as OTML's parent company, BHP, was facing a legal battle with landowners that threatened to cause it serious political embarrassment, the mining corporation settled out of court on condition that the case was withdrawn, OTML made no commitment to building a tailings dam and the landowners made no public criticism of the deal.

Those interested in state-organized crime might examine the operations of successive PNG governments. This would reveal how the desire for development through foreign investment resulted in the country ending up dependent on investment by foreign mining houses. When the Panguna mine was closed by civil war on Bougainville, the state desperately needed revenues from other ventures in order to stave off economic ruin. The PNG government was forced to match the lax regulatory regimes offered in other developing countries. While governments and individual public servants did retain a commitment to the conservation of environmental resources, they were prepared to sacrifice the environment for economic development. Repeatedly, government ministers were prepared to accept OTML's rather

^{44&}quot;Ok Tedi Resolution" BHP Company News, 11/6/96 < http://www.bhp.com.au/news/pr 2896.htm>.

optimistic claims that there would be little long term damage to the environment. They did so without adequate environmental knowledge of the Fly River system and without the ability to monitor and enforce the environmental provisions of agreements with OTML. These difficulties were exacerbated by the bureaucratic structures that were established to deal with Ok Tedi: the recommendations of technical staff were repeatedly overruled, conflicts of interest within the DME were resolved in favour of political needs and financial expediency, and the entire administration were liable to be bypassed as politicians dealt directly with mine management. As a result, the government failed to protect the environment and the local population from the damage wrought by the mining operation.

However, it is the intersection of these two accounts that makes the events at Ok Tedi so interesting. The death of parts of the Fly River system was the result of the relationship between OTML and the government. Sometimes this relationship rested on consensus. On these occasions, various governments departments were willing to use their position as definers and enforcers of law to break strikes, refuse visas to foreign critics of the mine, criminalize the pursuit of legal action in foreign jurisdictions; and to offer to pay compensation as part of an out of court settlement reached by two other parties. Sometimes, the two parties were in open conflict over such issues as the independent monitoring of the mine, and the construction of a copper processing plant and a tailings dam. On some occasions, the government caved in when OTML threatened to pull out of the mine. At other times, the government were prepared to close the mine until the mining company was forced to concede defeat. As a result, we believe that the events at Ok Tedi can best be understood within the context of this relationship. As Jackson (1993) noted in the quote that we have used at the beginning of this paper, if there is credit to be apportioned as a result of the mine then it must be shared between the government and the corporation. Likewise if there is blame then it too must be shared.

The Ok Tedi case study also suggests several further developments for the general field of study of state-corporate crime. First, it takes the investigation of the relationship between private and public, between political and economic institutions out of the world of American criminology and into the international arena. For all the important work undertaken by criminologists in the United States, there is still a tendency to generalize from the experience of one country – for example, crimes of the state are reduced to crimes of the United States (Israel 1995). For state-corporate crime to be a worthwhile concept, it must be examined in a much wider range of situations. The relationship between a large multinational and a weak government in the developing world may be very different to that between a Federal government in the United States and its contractors.

Second, this case study reveals how both the legal definitions of crime and the categories of censures that might legitimate these definitions may be constructed by a government in concert with corporate interests. In some cases, some actions were deliberately excluded from the ambit of environmental legislation. OTML's actions at Ok Tedi did not lead to prosecution because by and large they did not contravene PNG law. When OTML did breach regulations, the PNG government simply moved the goalposts and changed the regulation so that OTML's operations would not be restricted. Under such conditions, criminologists who limited their research interests to those activities proscribed by domestic law might be encouraged to lose interest. However since the 1970s, several criminologists have recognized that sole reliance on the state's definitions has produced an uncritical acceptance of the existing order and these researchers have found ways to justify extending their range to include such actions (Schwendinger and Schwendinger 1970; Cohen 1973).

On the other hand, actions of other parties *were* criminalized by the PNG government. When Wopkaimin forced the mine to close in 1988 in protest against the company's failure to offer employment to local people, the government ordered the arrest of their leaders. When the Premier of the Western Province, Isidore Kaseng, again threatened to shut down operations in 1992, the government in Port Moresby intervened once again to protect the mine by arresting Kaseng.⁴⁵ The government took the side of OTML and BHP even more blatantly in 1995. When local clans resorted to legal action in Australia in order to gain compensation for damage caused by the mine, the government introduced a Bill that had been drafted by BHP's lawyers that attempted to criminalize pursuit of their case. These kinds of actions were justified by both government and BHP representatives through the deployment of various censures: critics of the mine were wrecking the economy; the attacks on the mine were being launched by foreign lawyers seeking to profit from the ignorance of local landowners (see Callick 1994a; O'Callaghan et al. 1994) or foreign groups intervening in PNG internal affairs.⁴⁶ Once again, we suggest that an analysis of

⁴⁵"Papua New Guinea Premier of Province Arrested in Environmental Dispute" British Broadcasting Corporation Summary of World Broadcasts/The Monitoring Report. June 15, 1992. FE/1407/i.

⁴⁶For example, see Murray Eagle, OTML's Executive Manager (Environment and Logistics) in Davis (1992b).

this kind of state-corporate relationship may offer new directions for criminologists in the area both within other developing countries as well as in the developed world.

Conclusion

Since 1984, mining of gold and copper at Ok Tedi has caused serious damage to the ecology of the Fly River system. The state, through inadequate regulation, has chosen to facilitate the actions of OTML in discharging tailings directly into the river systems. As a result, the lives of local indigenous people have been seriously disrupted. Only in 1996, was this destruction in part recognized by BHP when it agreed to pay compensation to local landowners. The future of the region depends on the ability of BHP and OTML to reestablish a decent relationship with the local people.

In this paper, we have argued that the concept of state-corporate crime can help explain how and why this occurred. The underlying cause of the environmental damage and social harm can be attributed to the economic interdependence of the parties involved. PNG has an economy that is reliant on the mining of its resources for development and OTML could not function within PNG without the political, economic and legal framework of the government. We have also suggested that the devastation wrought by mining in PNG can stimulate new developments in the study of state-corporate crime by moving it beyond a specifically American context and into other jurisdictions where relations between weak central governments, strong multinational corporations, and different forms of law and order rhetoric may result in variations in the patterns of state-corporate crimes identified by criminologists in the United States.

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