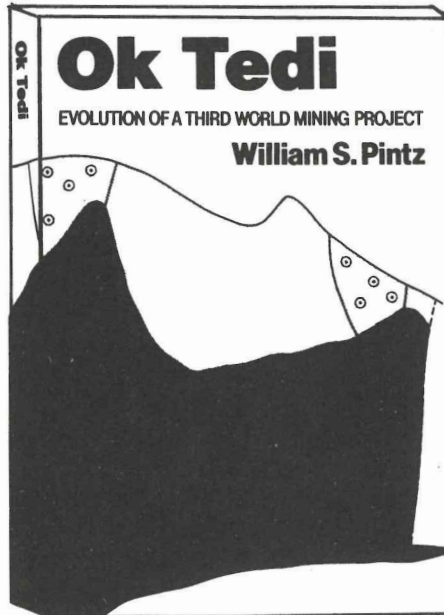




Ok Tedi a third world mining project

By Ciaran O'Faircheallaigh



William S Pintz, *Ok Tedi: Evolution of a Third World Mining Project*. Mining Journal Books, London, 1984 (Paperback). 19.00 GBP (34.00 USD) by surface mail, 22.25 GBP (40.00 USD) by air mail.

This book will be of considerable value to anyone interested in the development of large-scale mining projects in Less Developed Countries (LDCs), and particularly to LDC government officials and politicians concerned with development of their countries' mineral resources. Its author was either personally involved in, or had access to information on, the key events leading to the establishment of a major gold/copper mine in the remote Star Mountains region of Papua New Guinea. His account of these events offers many useful insights into the political, economic, financial, technical and environmental issues which an LDC government must come to grips with in negotiating terms for the development of a technologically-complex, foreign-financed mining project. But the book itself, and recent events relating to the Ok Tedi Project, show clearly that an even more difficult task faces LCD governments in putting into practice provisions agreed to on paper, and

particularly in trying to ensure that the impact of mineral development on the local population is, on balance, positive.

The Ok Tedi gold/copper deposit was initially identified in 1968 by the US-based Kennecott Copper Corporation. It is located in Papua New Guinea's Western Province, near the border with Indonesia, at more than 2 000 metres above sea level in rugged jungle country characterised by infrequent but moderately severe seismic activity. Pintz discusses (Chapter 2) the geology and ecology of the area, and the social, demographic, educational and other characteristics of its inhabitants. Because of its remoteness and its prior lack of economic potential, the area received scant attention from either colonial or (since 1973) national governments; the provincial health system is one of the poorest in the country, malnutrition is a serious problem and life expectancy, especially for females, is in Pintz's words 'staggeringly low' (29 years for males, 16 years for females, according to one estimate) (p 26). Educational levels are also low and this, combined with health handicaps and language barriers, will militate against direct participation by local people in the mining project. Over the longer term the project itself may help to alleviate these problems; local people clearly believe that it will, since throughout they have given it their consistent and forceful support.

This is in strong contrast to the situation on Bougainville Island, where in the mid and late 1960s local people strongly opposed development of Papua New Guinea's first modern large-scale mining development, the Bougainville Copper Project. The more positive attitude of Western Province people reflects the very low level of incomes and services they have received in the past and their consequent determination to secure any benefits that might accrue from mining.

In Chapter 3 Pintz outlines the discovery of the Ok Tedi deposit, its initial evaluation by Kennecott, that company's

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subsequent negotiations with Papua New Guinea's first national government, and its ultimate withdrawal from the project. The government itself stepped in at this stage and through a state-owned enterprise, OTDC, continued exploration work.

Chapter 4 describes OTDC's involvement, the government's efforts to interest other companies in the project, and the formation of the consortium which eventually developed Ok Tedi, headed by the Australian steel producer and miner, BHP, and including the American oil company, AMOCO, a number of West German metal refining and trading companies, and the Government itself. Chapters 5–8 describe the complex sequence of negotiations and evaluations which occurred between the signing of an initial government-consortium agreement and commencement of construction work. Chapter 9 outlines the economic, social and political impact of the project, drawing heavily on an earlier government-sponsored impact study,¹ while the final Chapter discusses some general issues raised by the earlier account of project evolution, for example the conflict between the government's various roles (tax collector, shareholder, public interest regulator) and the implications for LDCs of recent changes in methods of financing large mining projects.

Not surprisingly it is those chapters (4–8) which draw heavily on Pintz's personal experience and access to unpublished information which contain many of the book's most useful insights, some of which are mentioned briefly below.

1. Perhaps the most striking aspect of Pintz's account is the complexity of the financial, technical and environmental issues with which the Papua New Guinea government had to deal. For instance, it had to become sufficiently conversant with financial matters to analyse the implications of alternative project financing proposals for its interests as a tax collector and shareholder, and to limit its financial liabilities as a shareholder so that they did not jeopardise its capacity to

maintain general expenditure programmes; it had to ensure that the terms on which loan finance was raised did not unduly restrict flexibility as regards the scale and timing of development and allowed the other consortium members to maximise tax advantages in their home countries while protecting Papua New Guinea's interests (p 115–22).

2. The assistance of consultants was indispensable in permitting the government to come to grips with these complex issues. In recent years, the role of consultants in LDCs has been subject to widespread and sometimes severe criticism.² However, Pintz's account makes it very clear that use of reputable and independent technical, financial and environmental consultants played an indispensable role in permitting Papua New Guinea to protect its interests. For example, their presence added credibility to the OTDC's exploration results and thus made it easier to attract new investment for the project (p 51), and it allowed the government to effectively review the consortium's feasibility studies and development proposals (p 78). In addition, the consultants brought home to the government the fact that supposedly 'technical' issues relating to mine planning had major financial and economic implications, and they helped it develop its own position on such issues and so have an influence on key decisions (p 111–5).

Pintz's account shows clearly just how significant 'technical' decisions can be. One example relates to the choice of cut-off grades and pit design for Ok Tedi. The consortium regarded these matters and purely technical and therefore solely its concern, and argued that the government had no right to intervene. However, the consultants calculated that varying the cut-off grade and pit design so as to increase recovery of low-grade ore would increase the present value of government returns from the project by more than 13 per cent or nearly 160 M USD (p 94–6, 108–13). Clearly, an LDC concerned to

maximise returns from development of its resources cannot ignore 'technical' aspects of mineral exploitation.

3. LDC mineral producers must be prepared to invest substantial sums if they are to develop the capacity to deal effectively with large resource projects. Because of the complexity of the issues involved, extensive use must be made of specialist staff and consultants and large amounts of time and money committed to acquire relevant information. For instance, the Papua New Guinea government spent nearly 1 M USD on collecting basic data which it needed to evaluate the consortium's environmental proposals (p 64, 89).

4. Decisions to invest, or not to invest, in Ok Tedi were by no means based solely on calculations of expected profits, but reflected a range of factors, some quite external to the project itself. For instance, Kennecott's decision to withdraw was due not only to its view of Ok Tedi's economic viability but also to the nationalization of its copper mines in Chile, and to the impact of environmental legislation, price controls, anti-trust actions and cost increases on the profitability of its US operations (p 45–6). BHP's involvement was apparently influenced by the Australian government's concern to increase Papua New Guinea's economic self-reliance (so reducing the need for Australian aid to its ex-colony), and by friendships between certain BHP directors and Papua New Guinea politicians (p 55–6); AMOCO's by the fact that the President of its minerals subsidiary had been involved in the development of the Bougainville Copper Project and had retained contacts with government officials (p 59); and the German partners' by their government's concern to ensure greater mineral security supply for Germany (p 59–60).

Pintz is not, I think, suggesting that the profit motive was unimportant for any of those involved, but rather that a range of other factors coloured potential investors' perceptions of the project and

of Papua New Guinea, and thus their assessment of whether Ok Tedi represented a viable and profitable investment opportunity. Clearly, this point has important implications for LDC governments in their dealings with potential foreign investors.

I have selected these points to illustrate the type of issues discussed by Pintz, but many other topics are dealt with or touched on more briefly – for example, the tactics employed by the government in negotiating with the consortium, the problems of dealing with a consortium rather than with a single mining company, and the role played by politicians (rather than officials or consultants) in the evolution of the project.

The general conclusion which emerges is that, despite its disadvantages in terms of financial and technical resources, the Papua New Guinea government achieved its basic aims in the negotiations with mining companies. However, the government enjoyed less success in ensuring that the maximum possible benefits be derived from the Ok Tedi project by the people directly affected by it.

There is ample evidence in Pintz's book of the government's failure to adequately deal with matters which will play a key role in determining the project's impact on the surrounding population. These include:

(i) Land, the most valuable resource of a people still heavily dependent on subsistence farming, but one which could be threatened by the mine's physical impact and by an influx of outsiders attracted by the project.

(ii) Small-scale business development, which if properly managed could provide opportunities for local people to benefit from the project, particularly those lacking the necessary skills to participate directly.

(iii) Education, health, training and employment policies, all vital in determining the extent and level of national participation in the project workforce.

On these and other 'social' issues the government's performance was weak, partly because of a division of responsibility between national and provincial levels of government, mainly because of a general weakness in administrative capacity 'on the ground'. In Pintz's words,

“ — — — the government could conceive and execute analytical studies and negotiate sophisticated investor agreements but lacked the capacity to follow through on broad social recommendations in the field.” (p 142).

Recent developments in relation to Ok Tedi have illustrated all too clearly the gap which can exist between policy and performance, between what is provided for in agreements and what occurs in practice. For example, the Ok Tedi agreement requires the mining company to make every effort to promote local businesses supplying goods and services to the mine. But a 1983 report by Papua New Guinea's Institute of Applied Social and Economic Research found that the government had followed up almost none of the recommendations regarding business development made by its own 1980 impact study;³ it has been stated recently that the business development which has occurred emerged 'despite the general obstructionism of government agencies...'⁴ The agreement also requires the company to maximise employment of Papua New Guineans, and to train nationals to gradually replace expatriates in skilled positions. But the government is failing to deliver the basic education services which are an essential pre-requisite for any training programme; sufficient funds have not been committed to maintain basic community school education in the Western Province, and during 1982 parents of pupils at the school nearest the mine site had to collect money and send their teacher to Port Moresby to buy textbooks and other school materials, the government having failed to provide them.⁵

Finally, Pintz makes it very clear that the government paid great attention to environmental matters, and these too are dealt with in detail in the relevant agreements. But a combination of cost overruns, projects delays and a landslide at the Ok Tedi tailings dam is now forcing the government to abandon some of its basic positions on environmental matters.

Pintz's book contains much useful material on the difficulties faced by LDC governments in negotiating provisions for large natural resource projects, and on how those difficulties can be overcome. It also shows clearly, as does recent experience with the Ok Tedi project, that the greatest difficulty lies in translating the gains made in the negotiating room into concrete benefits for the local population.

Notes:

¹ R T Jackson, C A Emerson, and R Welsh, "The Impact of the Ok Tedi Project: A Report Prepared for the Department of Minerals and Energy, July 1980", Port Moresby, 1980.

² See, for example, the special issue of *New Internationalist*, No 96, February 1981.

³ R T Jackson and T S Ilave, *The Progress and Impact of the Ok Tedi Project: Report No 1*, IASER, Port Moresby, 1983, p 25.

⁴ R Jackson, "A progress report on the monitoring of Ok Tedi . . .", in D Gupta and S Polome, *Economic Policy Issues and Options in Papua New Guinea*, Working Paper No 41, Development Studies Centre, Australian National University, Canberra, 1984, p 78.

⁵ Ok Tedi Mining Limited officials, interviews with the author, Port Moresby, 1983-09-19. ■

Erratum

In Vol 3 No 2 p 60, it is only the volume by Bill Freund, *Capital and Labour in the Nigerian Tin Mines*, Longman 1981, which is reviewed, the other volumes mentioned are used as sources for the article.