The main purpose of this volume is to publish, and thus to publicise, the factual material contained in a series of consultancy reports commissioned by the Porgera Joint Venture (PJV) between 1992 and 1994 (Banks 1993, 1994a, 1994b, 1994c; Bonnell 1994). These reports dealt with the social and economic impact of the Porgera gold mine on the population of the Porgera Valley during the period which had elapsed since the Government of Papua New Guinea (PNG) signed a Mining Development Contract with the PJV in April 1989. They were commissioned as part of what became known as the Porgera Social Monitoring Programme, which was itself intended to satisfy some of the conditions which the PNG Department of Environment and Conservation (DEC) had attached to its approval of the company’s Environmental Plan (NSR 1988) and Environmental Management and Monitoring Programme (PJV 1991). The substance of these reports has been revised and edited to form Chapters 2–7 of the present volume. The last two chapters have been specially commissioned from two other social scientists who have studied the social impact of the mining project, and who were asked to provide their own comments on the design, management and output of the Porgera Social Monitoring Programme.
The Porgera Social Monitoring Programme, 1992–94

Condition 21 of the Porgera Environment Plan approval requires the PJV to undertake ‘periodic studies of the socio-economic impacts of the mine development on the people directly affected by the mine’. Condition 22 states that ‘the Company shall report to Department of Environment and Conservation on the studies in 21 above as part of the approved Environmental Management and Monitoring Programme’. By the time that this second approval was granted, the construction phase of the mining operation was almost complete, and the PJV had already commissioned one of the contributors to this volume to undertake a census of the local population (Burton 1991), which had been rapidly swollen by immigrants from other parts of Enga Province.

In May 1992, the PJV’s Environment Manager, Charlie Ross, asked the University of Papua New Guinea’s business arm, Unisearch PNG, to propose a more comprehensive programme of work to monitor the social and economic impact of the mine. In my capacity as the Unisearch Projects Manager, I promptly sought the assistance of my former university colleague, John Burton, whose previous consultancy for the PJV had also been undertaken through the university’s business arm. Burton’s original proposal, submitted in June 1992, had two main components.

- The first was for him to resume and complete the social mapping and census exercise which he had started under the previous contract, and which the PJV’s management had apparently placed on the proverbial back burner (see Chapter 9).
- The second was for the PJV to commission Glenn Banks, then a PhD student at the Australian National University, to study the local economic impact of the mine, with assistance from Engan staff and students at the University of Papua New Guinea.

In discussion of this proposal, it transpired that the PJV had already made a separate arrangement with Susanne Bonnell, who had previously been employed in the company’s Community Affairs Division, to collect ‘social statistics’ in the mine impact area, and her work was then absorbed into the design of the overall programme. Glenn Banks and his team began their first period of fieldwork in November 1992, but it was only in March 1993 that DEC staff were finally persuaded to convene a Steering Committee which
retrospectively approved the terms of reference for both of these consultancies. The meeting in question was attended by representatives of the PJV, the PNG Department of Mining and Petroleum, the PNG Department of Finance and Planning, the Department of Enga Province, and the Porgera Landowners’ Association. Susanne Bonnell, John Burton and I were also present at that meeting, and after further consultation with Glenn Banks, we finalised the design of the Porgera Social Monitoring Programme, and presented our proposals to the PJV in June 1993 (Burton and Filer 1993).

However, for reasons discussed at greater length in Chapter 9 of this volume, the only elements of this programme which had borne fruit by the end of 1994 were those which had already been initiated in 1992. After completing the first report of the ‘Economic Modelling Project’ in May 1993 (Banks 1993), Glenn Banks went on to produce three more reports in February, July and December 1994 (Banks 1994a, 1994b, 1994c). Revised versions of these reports appear as Chapters 3, 5, 6 and 7 of the present volume, in that order. Susanne Bonnell presented her own findings on ‘Social Change’ in a single report (Bonnell 1994) which was submitted to the PJV in August 1994. The findings of her study are presented as Chapters 2 and 4 of the present volume.

The documented impact of the mine

According to Banks (1996:223), the Porgera gold mine, from a technical and financial point of view, is ‘one of the most spectacular successes of the mining industry in recent times’. Annual output of gold reached a peak of almost 1.5 million ounces in 1992 (the first full year of production), but fell to about 850,000 ounces per annum in 1995 and 1996 (PJV 1997). The value of this output was almost K500 million in 1992, but was still more than K440 million in 1996, due to the slide in the value of the kina which began in 1994.

According to the national census, the Porgera Valley had a resident population of approximately 10,000 in 1990 (excluding mining company personnel), most of whom appeared to belong to ten ‘traditional’ rural communities outside the limits of Porgera government station. This was almost twice the number recorded in 1980, which shows that there had been substantial immigration into the area during the exploration and construction phases of the project (Burton 1991). No-one knew how many people were living in the Porgera Census Division by 1993, but Banks (Chapter 5) makes a
Map 1.1 Porgera mine impact area

(probably conservative) estimate of 12,000. By the end of 1994, over 4,000 of these people had been ‘relocated’ by the PJV in order to make room for the development of the mine (Banks 1996). By that stage, almost 3,000 hectares of land had been leased from local landowners for this purpose (see Map 1.1).

By the end of 1996, the PJV had paid about K40 million to local landowners in the form of general compensation for relocation and environmental damage (Banks and Bonnell 1997a),¹ and had spent another K13 million on various forms of community infrastructure in the Porgera Valley, aside from the K11 million which was spent in various parts of Enga Province under the national government’s Tax Credit Scheme. By that point in time, about K35 million had been paid out in royalties, of which K24 million had accrued to the Enga Provincial Government, while the remaining K11 million had been shared between local landowners and the Porgera Development Authority. The number of Engans (including Porgerans) directly employed by the PJV had risen from 638 in 1990 (out of a total workforce of 1,191) to 1,141 in 1996 (out of a total workforce of 2,087). The gross value of 1,942 business contracts awarded by the PJV to Porgeran companies in the period from 1992 to 1996 was approximately K70 million. By the end of 1996, the PJV had also spent another K20 million on various forms of education and training, much of which was directed towards the population of the Porgera Valley (PJV 1997).

These figures provide some indication of the sheer scale and intensity of the social and economic impact of the Porgera mine on the Porgera Valley. The studies conducted under the Porgera Social Monitoring Programme provide a more detailed picture of the outcomes of this process, as they were observed in 1993 and 1994.

In Chapter 2, Bonnell illustrates the dramatic transformation of the physical environment, including the construction of the mine and its associated infrastructure, the creation of the new ‘towns’ of Suyan and Paiam, and the construction of schools, health facilities, roads and bridges, and Kairik airstrip (see Map 1.1). She then proceeds to discuss some of the major social changes which accompanied this transformation. Local health services, for example, were greatly improved, when measured in terms of the growth of facilities and staff to deal with curative medicine, but the demands of Porgerans for this kind of medicine, combined with weakness in the government system, led to a corresponding neglect of the field of preventive medicine. By
1993, there was an obvious need for community health extension programmes to deal with sexually transmitted diseases, basic hygiene issues, family planning, substance abuse and environmental sanitation.

Porgera's educational bases did not really take off until the construction of new schools and classrooms in 1992. While the growth of facilities, especially community schools, was impressive, there was a major quality of education problem due to unacceptably high pupil-teacher ratios in Grade 1 and the lack of curriculum materials. But by 1993, Porgera did have the necessary mix of educational institutions to cater for most of the pre-tertiary education needs of the population: vernacular pre-schools, community schools, an international primary school, technical high school, vocational centre and College of Distance Education.

Bonell found that the impact of large amounts of cash, especially in the form of compensation payments, had a negative impact on women and on marriage. Adultery, abandoned wives and children, and domestic violence became major concerns. At the same time, loss of land for food gardening purposes led to specific forms of economic hardship for many women living in the Special Mining Lease (SML).

The deteriorating law and order situation was found to be the main problem affecting the quality of life in Porgera. However, at a time of rapid social change and breakdown in traditional clan discipline, the government system had little to offer. While the national government had got more directly involved in the business of mining, the PJV had been simultaneously forced to become more involved in providing government services. By 1993, it was evident that a number of other problems would need further attention during the life of the mining project: the distribution of benefits to children of the SML landowners, a non-mine-related economic base for 'life after the mine' in Porgera, and the ongoing debate about commuter mining.

In Chapter 3, Banks focuses his attention on the mine-related economic base which had developed by the end of 1992. The main sources of direct income to local people in that year were wages, royalties, compensation (despite a decline from the peak year in 1991), and other fees, and together amounted to just under K7.5 million. Business contracts to the value of K35 million had been awarded to locally-based companies since the start of construction. Local employment with the PJV was over 450, while five large local firms dependent (directly or indirectly) on the PJV employed another 300 local employees.
Yet only some of the value of these inputs into the local economy was retained within Porgera and re-spent or redistributed there. Much of it was either spent on trade store goods sourced outside the area, whose prices had the added impost of transport from distant distribution centres, or given to ‘wantoks’ from outside Porgera, or transferred to other towns to purchase large items, such as vehicles, which could not be obtained in Porgera. As a result, the rate of local capital accumulation was hardly any greater than it was in other parts of Papua New Guinea which were peripheral to the main centres.

Banks also found that there were significant economic inequalities within Porgera—between communities, between men and women (female income being less than a third of male income), and between individuals, with the most affluent 10 per cent of his survey sample earning 60 per cent of the income, and the bottom 50 per cent earning just 2 per cent of the income. Another notable feature was short-term temporal variations, with regular fortnightly ‘pulsing’ of the economy, and longer-term fluctuations in the value of PJV inputs.

In Chapter 4, Bonnell concentrates on the social impact of the PJV’s relocation programme. She recounts the way in which the Relocation Agreement was negotiated directly between the landowners and the PJV as part of a larger compensation package, and goes on to tell how 420 families were moved into relocation houses between 1989 and 1993. Relocation provided a large number of people with a dramatic improvement in their standard of housing, and the benefits were certainly appreciated by the majority of home owners. Relocation houses have locked people who were previously more mobile into their new places of residence. The growing population density of the newly created relocation villages, which was due to high birth rates and the immigration of relatives, had brought about a shortage of food gardening land and other forms of environmental degradation. At the same time, the relocated families exhibited high rates of marital breakdown, which were associated with a substantial increase in the practice of polygyny amongst the men who had reaped the economic rewards of their status as SML landowners.

In Chapter 5, Banks provides a more detailed account of the problem of population pressure which Bonnell mentions in both of her chapters. He found that subsistence agriculture continued to be the base of the Porgeran economic system for the bulk of the population, which meant that mine-derived money was still only a ‘second garden’ for many Porgerans. In the SML, he found the
potential for a looming crisis in the agricultural system, as population increase and loss of land combined to place pressure on the existing subsistence base. Particular problems were already being experienced in two of the relocation villages which he cites as case studies. The immigrant population, which accounted for roughly 40 per cent of the population of the valley, and was certainly an integral part of the Porgeran economy, was clearly contributing to the rapid increase in pressure on subsistence resources.

In Chapter 6, Banks provides another case study of the Kewai people resident in the Kaiya 'Lease for Mining Purposes', which was about to be added to the total area leased by the PJV because of the predicted physical impact of a new waste dump. The relatively marginal position of the Kewai in relation to the development of the mine was reflected in the fact that incomes and assets were generally lower than in other parts of the Porgera Valley, with alluvial mining providing the major source of income. Access to the area was difficult, and residents had to travel some distance to reach health and education services. There was little evidence of population pressure on the agricultural land resource. However, the Kewai were about to lose a significant proportion of their lower altitude land and gardens to the spoil from the proposed dump. A new compensation and relocation agreement was intended to ensure that, in return, they would receive significant benefits in the form of cash payments, some relocation homes, a road, and various other items of infrastructure.

In Chapter 7, Banks enlarges on some of the points made in his first report (Chapter 3), by detailing the growth and development of the business sector at Porgera since the start of construction in 1989. Despite large amounts of cash compensation and business contracts with the mine, an increasingly skilled and sophisticated population, and the assistance of the PJV Business Development section, the business sector at Porgera had not developed as it might have done. A number of constraints were impinging on businesses at Porgera—economic, financial, educational, cultural and land-related. Some of these could be expected to diminish over time. Contracts were a particular focus for the local community, but they had not provided the anticipated benefits to the community, largely because of a poor understanding of what a contract is.
The influence of 'custom' on the impact of the mine

Neither Banks nor Bonnell is an anthropologist, and both authors were therefore reluctant to engage in an extended discussion of the traditional culture and social organisation of the Ipili-speaking people who inhabit the Porgera Valley. Yet we still need to recognise that the local landowners and their sundry 'guests' have by no means been purely passive recipients of the 'impacts' visited upon them. Indeed, as I have previously argued

the word 'impact' needs to be treated with some caution, mainly because it suggests that relationships between the project and its social environment are not only dramatic but strictly unidirectional—as if the project were a stone thrown into a pond, and all the ripples in the pond should then be seen as the results of this particular event. In order to recognise the possibility of interaction between the project and its social environment, we should also think of the project as a big fish swimming in the pond, rather than a stone thrown into it, and thus allow that other, smaller fish can also make some ripples of their own (Filer 1996:59).

The relationship between the PJV and the local population has been characterised by a level of noise, and even occasional violence, which may owe as much to the traditional 'political culture' of this part of the central highlands as it does to the social and economic impact of the mine itself (Filer 1997a).

Then again, it might owe something to the previous history of contact between the indigenous population and various external forces. As Bonnell points out in Chapter 2, the Ipili of Porgera had already been adapting to changes resulting from trade, warfare, disease and famine before the European invasion began in the 1930s. The documented history of events which have since influenced Ipili society includes the 'first contact' patrols which marked the beginning of the modern area, local involvement in a millenarian 'cult' imported from another part of Enga Province, early gold prospecting activities in the Porgera Valley, the establishment of a government patrol post, the arrival of Christian missionaries, the construction of the road linking Porgera to Lae, the escalation of large-scale mining exploration, and the Mount Kare gold rush of 1988.

If it is still possible to disentangle the effects of recent history and ancient tradition, we should have to ascribe a substantial part of the
Porgeran reaction to ‘development’ to a form of traditional social organisation which seems to reflect the peripheral position which Ipili-speakers formerly occupied within the wider ‘culture area’ which is dominated by the far more numerous Enga-speaking population to the east and Huli-speaking population to the south. The flexibility of the rules or principles by which Ipili ‘clans’ recruit their members received a good deal of attention in Burton’s (1991) social mapping study

- first because of the problems which had already arisen from the tendency of company and government personnel to treat these ‘clans’ as if they were corporate descent groups with clearly demarcated social and territorial boundaries; and
- second because the absence of such demarcations had enabled thousands of *epo atene* (‘come stay’) people to justify their presence in the impact area by reference to distant ties of kinship with the people who were officially recognised as the ‘true landowners’.

In Chapter 8, Aletta Biersack explores the ramifications of this flexible form of social organisation in greater detail, showing how it functions as a form of resistance to the complex process of territorial demarcation, group incorporation and economic stratification which has been set in train by the development of the mine, and how it serves to explain some of the aggressive postures adopted by community leaders in their dealings with the mining company. In this way, she is able to cast new light on some of the evidence of ‘social disorder’ discussed in the earlier chapters by Banks and Bonnell.

From this account, we are led back to the problem which John Burton articulates in the final chapter of this volume, which is the PJV’s failure to invest in a deeper understanding of ‘traditional’ Porgeran society during the exploration and planning phase of the project. More to the point, perhaps, Burton and Biersack might both agree that there is even more of a puzzle in the fact that this apparent lack of interest has continued to the present day.

**Social monitoring programmes as a matter of policy**

In the period preceding construction of the Porgera mine, the PNG government and the industry itself had shown little or no interest in monitoring the social impact of mine construction and operation anywhere in PNG. Neither of the industry’s two main operators, Bougainville Copper Limited (BCL) and Ok Tedi Mining Limited,
were required to take any responsibility for this activity under the terms of their separate agreements with the state. The government had made a commitment to monitor the social impact of the Ok Tedi mine when construction work began in 1980, but this was soon forgotten. A belated study of the social and environmental impacts of BCL's Panguna mine (AGA 1989), which was undertaken during the period in which the PJV was negotiating its various agreements with the national government and the local landowners, came far too late to prevent the outbreak of the Bougainville rebellion and the end of BCL’s mining operations (Filer 1990). On the other hand, the rebellion itself prompted a new wave of interest in the question of whether social monitoring programmes could help to prevent the relationships between mining companies and local communities from deteriorating beyond the point of no return.

As the stormclouds gathered over Bougainville, PNG’s National Executive Council coincidently decided that the production of ‘socio-economic impact studies’ of all kinds should no longer be the sole responsibility of government, or the joint responsibility of government and developer, as had previously been the case, but should henceforth be part of the developer’s responsibility to comply with the Environmental Planning Act of 1978.

However, the DEC has never yet been able to produce any detailed set of guidelines regarding the manner in which questions of social impact are to be addressed in an Environmental Management and Monitoring Programme. Developers have been left to formulate their own answers to these questions, with the result that quite different mechanisms for monitoring and mitigating social impacts have been adopted in respect of successive mining projects, without any consistent or concerted input from government. Although the DEC has normally required the establishment of a Social Impact Monitoring Committee in respect of each project, with a brief to identify and address social issues through the resources of its members, there has been no policy framework or procedural mechanism for relating one issue to another, for recognising causal connections between social impacts and mitigation measures, or for resolving differences of opinion on the way that social problems should be handled.

In 1992, the European Union agreed to fund a Mine Monitoring Project within the DEC which was intended, amongst other things, to strengthen the department’s own capacity to monitor the social impact of mining projects by appointing specialist field staff to a newly
established Social Policy Unit. This experiment has not been a great success. The new unit has not had the human or financial resources to conduct any kind of effective research programme, but the tantalising prospect of eventually doing so has diverted its staff from the task of policing and evaluating the research programmes funded by the mining companies themselves, and from seeking the active collaboration of other government or non-government organisations in putting their recommendations into practice. Mining companies have been left with the impression that social monitoring programmes are things which they fund and organise for their own internal use, and if funds are in short supply, they do not need to organise them at all.

In the absence of any clear guidelines from government, there is still little evidence that mining companies are developing a consistent and sustained approach to the design and implementation of social monitoring programmes. Instead, we find a mixture of idiosyncratic organisational responses to specific social settings and community demands. This is not so surprising when one considers that

- mining projects differ from each other in several basic dimensions, especially their scale and their duration, which affect the nature and extent of their social impact; and
- their local social environments also vary in several basic dimensions, from the experience of colonial administration to local forms of leadership or current patterns of development.

On the other hand, the companies also share some organisational features which make it difficult for all of them to adapt to the problem of social impact mitigation or risk management in the somewhat peculiar local environments which they encounter in Papua New Guinea.

In Chapter 9, John Burton presents a detailed analysis of the causes and consequences of this ‘performance evaluation gap’, with specific reference to the development of the Porgera project. As he points out, the mining companies have commonly failed to develop the ‘new competencies’ which are necessary to bridge this gap because of the typical separation of an ‘environmental monitoring’ section or division, which is normally run and sometimes exclusively staffed by natural scientists, and a ‘community affairs’ section, which is normally staffed by individuals with ‘local knowledge’. It is then left to the general manager to make the cerebral connections between these two limbs of the corporate body, but the most senior levels of project
management in this sector are normally reserved for engineers or accountants, and these individuals have even greater difficulty in understanding the concepts and methods of applied social science than do the natural scientists and public relations personnel who work at lower levels in the hierarchy. This corporate blind spot therefore duplicates and reinforces the lack of appropriate expertise in relevant government departments.

Comparison of the Misima and Porgera projects, both of which have been developed under the conditions laid down in the Environmental Planning Act, shows how the same operator (in this case Placer Dome), presumably guided by the same general conception of its aims and objectives, is liable to adopt quite different approaches to the problem of social impact monitoring in different local contexts (Filer 1998). In the Misima case, the company initially left its own community affairs staff to do all the social impact monitoring work (if such it can be called), without any assistance from external consultants. Their reports to the DEC consisted primarily of a record of the benefits which the company had provided to the local community, and the minutes of meetings between the authors and various community representatives. In the Porgera case, as this volume testifies, there has been greater recognition of the need for external assistance in the design and implementation of a social monitoring programme, because the community affairs staff have been totally absorbed by the day-to-day business of fighting the metaphorical fires created by a far more menacing collection of local stakeholders. On the other hand, as Burton explains in Chapter 9, the vagaries of this struggle seem to have produced a situation in which the programme is continually interrupted or fragmented by the limited attention span of senior management. It is tempting to attribute the whole of this contrast between Porgera and Misima to the difference in political style, and even political strength, between the two local populations surrounding the respective mines, but part of it is also due to the difference between the size, the likely duration, and the actual profitability of the two projects.

Even where mining companies recognise that ‘social monitoring’ is something which they cannot do by themselves, as part of the routine practice of managing ‘community affairs’, there is a tendency for company managers and government officials to treat the monitoring and mitigation of social impacts in the same ‘mechanical’ way as the monitoring and mitigation of bio-physical impacts, by assuming that
the work consists essentially of measuring those ‘things’ for which quantitative data are already available or can readily be acquired. The resulting pile of numbers may obscure some of the most important factors in the social dynamics of a project impact area, providing little or no guidance to the formulation of mitigation or risk management strategies. The changing attitudes and values of the local community are an unpredictable but essential element in determining the very nature of the impacts which they experience, and the choice of strategies for dealing with them. One cannot simply establish social impact ‘thresholds’ which are comparable to something like an acceptable particulate level, and then require the ‘triggering’ of specific mitigation strategies as these thresholds are approached, since the nature of the problem and its solution will nearly always be a matter for negotiation between the interested parties.

Burton makes the same point in Chapter 9, when he argues that the mining companies which fund and organise social monitoring programmes need to transcend the attitude which merely looks for the least cost of compliance with government standards. To which we may add the need for all interested members of the local community to have access to all the outputs of such work except insofar as this would constitute a breach of corporate confidentiality. Consultant social scientists experience a conflict of interest in the conduct of such work, which is typically revealed by the refusal of community representatives to accept the ‘objectivity’ of their findings, and the failure of government representatives to act on their recommendations. Both of these revelations have been characteristic of the Porgera Social Monitoring Programme from the time of its inception. The organisation of such work must therefore make allowance for various forms of ‘feedback’ to take place between the measurement of change in the project impact area and the evaluation of relationships between all stakeholders in the development process—including its managers and regulators. This means ‘speaking truth to power’, and that truth may not always be welcome.

In our long experience of organising or undertaking this kind of work for mining companies in Papua New Guinea, Burton and I have done our best to ensure some mutual recognition of the need to place the results in the public domain, and to use these results in a broader discussion of corporate policy. While the companies have had some trouble in formally ensuring this freedom, because of their own obligations to shareholders, they have normally been prepared to
acknowledge that ‘secret’ social monitoring studies are self-defeating. The PJV’s endorsement of the present publication is a pleasing example of such transparency.

The Porgera Social Monitoring Programme, 1996–97

At the end of 1994, the Porgera Social Monitoring Programme entered a two-year period of hibernation, during which I secured the PJV’s approval to begin the long task of preparing the reports for publication. For reasons unconnected with events at Porgera, completion of this task has been delayed to the point at which it has been necessary for me to convert the present tense, as used in the original consultancy reports, into the past tense, which now makes their findings seem like a contribution to the early history of the Porgera mine. However, the issues raised by the social and economic impact of the project over the last five years have been no different to those which were raised in the first five years of its existence. The more important question is the one which Burton raises in Chapter 9, which concerns the continued absence of a consistent institutional approach to the documentation and mitigation of these impacts.

While Burton attributes this lack of consistency to the organisational culture of the mining company, some part of the blame, in this particular case, would appear to be due to the failure of the DEC to sustain its own role as the notional coordinator of the Porgera Social Monitoring Committee. In August 1996, the PJV once again took the initiative, by asking Glenn Banks to submit a proposal for a second phase of the Porgera Social Monitoring Programme. His proposal observed that the first phase of the programme had comprised a series of ‘one-off’ reports, without the elements of coordination and feedback which had been a central feature of its original design (Burton and Filer 1993), and went on to argue that these elements should be more firmly embedded in the design of a second phase. In particular, he emphasised the potential significance of the programme as a ‘community development planning tool’, as well as a means of compliance with the government’s environmental regulations, and revived the argument for regular (annual) reports which would not only monitor the activities of all the major stakeholders in the impact area, but would also supply recommendations for action to be taken by all of these stakeholders. At the same time, he suggested that the definition of the impact area be expanded to include the Lagaip-Strickland river system, downstream of the mine, and the powerline...
linking the mine to the Hides gas plant, because groups of downstream and 'upstream' landowners had both been embroiled in conflict with the PJV over the distribution of compensation and benefits from the project.

In November 1996, three members of the original design team—Banks, Bonnell and myself—assembled once again in the offices of the Community Affairs Division to hammer out the details of this proposal. At this stage, the new mine manager raised the possibility of subsuming the Social Monitoring Programme within the remit of the 'Stakeholder Monitoring Committee' which had recently been formed, on the company's initiative

- to address the conflicts which had arisen over the downstream impact of the waste material being discharged into the Porgera River
- to implement the recommendations contained in the CSIRO's report on the bio-physical dimensions of this impact (CSIRO 1996; see also Chapter 9); and
- to establish a new forum for dialogue between the PJV and those non-government organisations which had been taking the company to task on this issue.  

Although we were prepared to include the Lagaip–Strickland river system in our own definition of the impact area, we found this suggestion to be inappropriate, because the geographical distribution of social and economic impacts could not be equated with its bio-physical impact on the river system, and the institutional mechanisms required to mitigate these impacts would therefore need to involve a different set of stakeholders. In particular, we argued that the social and economic impacts of the mine were still concentrated within the Porgera Valley or (more broadly) within the Porgera District, and many of them had little or nothing to do with the discharge of waste material into the Porgera River.

This argument was accepted by PJV management—not least because one of the most contentious issues at that time was the company's desire to maintain the 'fly-in/fly-out' system of commuter mining (see Chapter 2) against local demands for the further development of Payam township to accommodate a larger proportion of the project workforce. The company was hoping to resolve this issue by exchanging a reduction in the number of commuters for a local undertaking to reduce the incidence of 'law and order' problems which would otherwise dissuade its employees from taking up
residence in the township. The Social Monitoring Programme was seen as one of the devices which might assist in setting the terms of this reciprocal arrangement, and then making sure that both sides kept to their respective parts of the bargain. At the same time, the company recognised the need to address a variety of other issues which had been documented in the first phase of the programme, and our own design of the second phase was built around the need to determine what had or had not been done to implement the long list of recommendations appended to those earlier reports. For this reason, we proposed that each Annual Report would henceforth be accompanied by a Draft Action Plan which would continually update this list of recommendations, and which would then cease to be a mere draft once it had gained the acceptance of all the stakeholders represented on the Social Monitoring Committee. As in the design of the first phase (Burton and Filer 1993), it was envisaged that more detailed studies of specific problems, such as demographic change or 'law and order', would be commissioned by the PJV as part of the agreed Action Plans, and that their findings would then be absorbed into subsequent Annual Reports.

Once again, the design document was accepted by PJV management. Banks and Bonnell then set about collecting the data required for the 1996 Annual Report, which was duly submitted to the company, along with a Draft Action Plan, in July 1997 (Banks and Bonnell 1997a, 1997b). Some weeks later, both documents were presented to a meeting of the Social Monitoring Committee, whose membership had now been extended to include the Porgera District Administration, Porgera Development Authority, Porgera and Paiela Local Government Councils, Porgera Landowners Association and Porgera Women’s Association, as well as the PJV, the DEC, the Department of Mining and Petroleum, and the Department of Enga Province. Agreement was reached on most of the measures proposed in the Draft Action Plan, which was then redrafted as the Action Plan in September 1997 (Banks and Bonnell 1997c). But we do not know how many of the planned actions have since been taken, because the consultants have not yet been asked to produce an Annual Report for 1997, let alone for 1998, nor have we yet seen any sign of the detailed studies which they recommended.

Rather than speculate on the reasons for this second period of hibernation, I shall simply note that our own reason for not including a revised version of the 1996 Annual Report as a separate chapter in
the present volume is that we thought this ought to constitute the first substantive chapter in a second volume devoted to the findings of the second phase of the Porgera Social Monitoring Programme. Besides which, we have yet to secure the PJV's approval for publication of this material, and there is reason to believe that the volume of noise and heat which has been generated by some of its recommendations would cause the company to hesitate. On the other hand, there is also reason to expect that further studies of the social and economic impact of the mine will be undertaken during the course of the next decade, whether or not these are commissioned by the PJV, and we trust that the publication of this volume will serve to encourage and guide the formulation of these studies.

Notes

1 This is much higher than the 'official' figure of about K18 million contained in the company's own information booklet (PJV 1997), but there are good reasons to suppose that Banks and Bonnell have got closer to the mark.

2 This committee has since been renamed the Porgera Environmental Advisory Komiti, and presently includes three company representatives, three government representatives, four non-government organisation representatives, with an independent chairperson acceptable to all parties (see Atkinson 1998; Van den Brand and Parkop 1998).