Activities of TNCs in extractive industries in Asia and the Pacific: Implications for development *

Glenn Banks **

This article provides an overview of development outcomes from the activities of transnational corporations (TNCs) in extractive industries. Drawing on the author's experience of working as a geographer around the mines in Papua New Guinea and the global literature on the subject, the economic, social, cultural and environmental impacts of mining and resource extraction in the Asia-Pacific region are discussed. The focus of the article is the impact in the locality. The article concludes by discussing the growing influence of NGO activities and awareness of corporate social responsibility.

Keywords: Extractive industry, transnational corporations, environment, corporate social responsibility, Papua New Guinea

1. Introduction

Natural resources are increasingly the focus of development policies and plans in Asia–Pacific, as well as for the activities of transnational corporations (TNCs) operating in the region. It has been argued for some time that such activities can be the spark for national and regional development. Resource extraction can provide necessary capital and expertise and revenues through taxes and downstream processing, in addition to supplying employment, technology transfer and much-needed infrastructure. The development implications of extractive industries in the Asia–Pacific region are also some of the most controversial among regional development issues. They are controversial because they are large-scale operations, often in remote, relatively underdeveloped parts of the country that make them highly visible to local and national scrutiny, and they are also highly visible to the international community via satellite technologies. Further, they generally involve a foreign

^{*} The views expressed in this study are those of the author and do not necessarily reflect the views of the United Nations, its Member States, or the Institutions to which the author is affiliated.

^{**} Glenn Banks is Associate Professor, Development Studies, Massey University, New Zealand.

TNC accountable to shareholders who regularly judge its activities by the standards of the TNC's home country; to make matters worse, there is now a large, international community with an interest in, and a specific focus on, monitoring their activities. All this, along with a long history of conflict and controversy, means that the relationship between the major parties involved assumes a delicacy not matched in other sectors

It is worth remembering that all such operations have at their core a critical three-way relationship between States, communities and corporations. In reality, however, this apparently simple *trifecta* is massively complicated by the sets of values, capacities and resources that each of the major players can bring to the make-up. States, communities and corporations vary dramatically across the region, none of which are given, or static, and increasingly a range of other players are also involved who can form alliances with or oppositions to any of the three major stakeholders.

The overview of development outcomes presented below is necessarily selective, in a number of ways. It draws on both my own 18 years of experience working as a geographer around some of the large-scale mines of Melanesia, and on a huge global literature on the impacts of mining and resource extraction. While the mining sector from which most of the examples are drawn poses its own particular set of problems, oil, gas, forestry and fisheries do present certain commonalities on key parameters that allows for broader, more general statements. I emphasized geography above because this discipline uniquely provides a skill set which allows us to examine holistically the full range of development implications (economic, social, cultural and environmental) at a range of scales, from the local to the global. A final reflexive note is that the discussion below is almost exclusively centred round the localized development implications of these developments, not only because this is where my research has been concentrated, but also because the broader implications have been thoroughly canvassed elsewhere, and because in my experience the most troubling issues from the perspective of sustainable development are focused on the local effects of such operations.

In some respects, a view of TNCs in the extractive industries of the region from what can appear as the peripheral perspective of mining in Papua New Guinea may seem a little odd. But Papua New Guinea now has a 35-year continuous history of hosting a number of large-scale,

¹ For Papua New Guinea, see Banks (2001).

world-class transnational mining operations, and over that time has seen the best and the worst features of such operations – from innovative forms of community participation to high-profile environmental disasters and even civil war. In this brief review of the development implications associated with these activities, I separate for the sake of convenience the local economic, social, cultural, governance and environmental impacts of mining, and identify two trends that will continue to shape the nature and form of these outcomes.

2. Local economic effects

The economic impact of large-scale resource extraction is always most extreme, in relative terms at least, at the local scale. Such operations boost local economies enormously, through direct negotiated flows of resources to communities and indirectly through various secondary economic effects. The biggest variations across the region occur with the former – the direct flows to the communities. Depending on the company, the nature and size of the operation, and the legislative regime, such flows can include one-off or continuing compensation (Banks 1998), royalties, dividends from a direct equity share in the operation (Banks 2003), 'spin-off' business contracts (Banks 2007) and employment. Papua New Guinea has been at the forefront of the development of these so-called benefit packages for affected landowner communities for 30 years now. To give one example, at the Porgera mine in Papua New Guinea, '[s]ince 1990, the Porgera landowners have received K36 million in royalties, K62 million in compensation, and K26 million in equity-related payments and dividends. This totals K124 million, but does not include a proportion of royalties paid to a trust fund (for educational purposes) or a proportion of equity-related payments that has been invested in real estate. Over the same period, approximately K167 million has been paid to Porgerans as wages, which represents around 57 per cent of the direct financial benefits received by landowners' (Finlayson, 2002, p. 36).² Two points of note in relation to the Porgera case are that the landowning community that has shared these benefits is fairly small, made up of perhaps 4,000 individuals,³ and that the figures given above do not include the value of 'spin-off' business contracts from the mine to locals, the value of which was around K195 million to 2004 (Banks, 2007).

² Note that value of the kina over the period of the mine has ranged from parity with the US dollar up until 1994 to as little as US\$0.33 in 2002.

³ See Filer (1999), and Jackson and Banks (2002) for a history of the mine and community

The variations in the types and rates of such flows from operation to operation, even within one country let alone across the region, are enormous: in some places the returns to the affected community have been relatively small, whereas in others, such as the Papua New Guinea example given above, they can be enormous. Clearly, the nature of the agreement that local communities are able to secure, either through formal governmental processes or directly with the resource extractor, is critical. It is also important, for developmental reasons, to separate the issue of direct compensation for loss (ensuring that communities are not worse off economically, itself difficult in the context of subsistence resources) from selective, usually preferentially directed development benefits

The economic benefits from the large-scale mines are not always positive. Two particular issues are the development of mine-related dependency and the potentially damaging effects of the benefit streams themselves. In terms of the former, the evidence from Melanesia is that communities provided with what are effectively local "resource rents" have little interest in or motivation to become involved in "productive" businesses, enterprises or even employment. This dependency, actually a rational set of economic decisions, often leads to a portrayal of the community as being lazy, tied to corrupt practices and with values directly opposed to the development of any form of sustainable development.

A second negative effect directly related to the benefit streams associated with the large-scale mines is what anthropologist Colin Filer (1990) has labelled the "social disintegration" thesis. Filer's concern, derived in the context of the closure of the Bougainville copper mine in 1989, centred on the corrosive and destructive effects of mining revenues on small Melanesian communities. These processes have their origin in the inability of traditional forms of exchange and sociality to deal with the distribution of large sums of cash, leading to internal disputes, between families and generations over the equity of patterns of distribution. Filer (1990) commented in relation to the Bougainville mine that this was because Melanesian societies simply had no appropriate traditions to draw on when it came to distributing these funds. The societies did (and in most cases still do) have a range of mechanisms for spreading the objects of customary trade and exchange (pigs, shell money, etc), but it cannot be expected that these same mechanisms will provide a basis for the equitable distribution of millions of kina in cash.

Critically, I argue that these local economic effects are at the centre of the development opportunities and problems associated with large-scale TNC-led resource extraction. This is because it is these economic effects that drive many of the social and cultural changes outlined below.

3. Social and cultural effects

There is a voluminous literature on the local social and cultural effects of transnational mining operations. It has been pointed out recently that much of this literature relates to individual sites, is overwhelmingly descriptive, and is short-term rather than based on long-term longitudinal studies (Ballard and Banks 2003). Much is made by corporations of improvements in infrastructure (road-building, health and education) that they bring, and it is certainly true that these have been highly significant in some areas at some points in time. But there are also numerous operations where such improvements have resulted in limited or short-term benefits for communities. Rather than focus on these, however, I identify four main themes that can lead to insights that expand out from mining to other areas of resource extraction across the region. These are the processes of delineation and the construction of community, the impact of rural-to-resource migration on local communities, various forms of inequalities that arise, and finally the various social pathologies associated with mining and other forms of resource frontiers.

a. Drawing lines

Mining operations, like all resource extraction operations, are cadastral: they draw lines on maps that translate into lines on the ground. These lines become powerful instruments of social transformation because they divide groups into haves and have-nots. Communities become "landowners", "mining lease residents" or one of the score of other names used to describe communities that host mining operations. These lines effectively delineate a group with access to a range of benefits or compensation (often on the preferential basis described above) and, at the same time, another group of people or communities that have been rendered marginal in terms of the focus of the development. Much of the source of conflict around the large-scale mining sector in the region is driven as much by this creation of marginalization as it is by the distribution of benefits to the insider groups. And there is little that can be done about this, as those communities that suffer the greatest damage to land and their lives should, I believe, receive greater compensation and access to benefits than those that suffer less, often much less. The drawing of lines and the marginalization that accompanies it, then, sets

the scene for the development of both migration and inequalities, the two processes discussed below.

The cadastral metaphor is also useful in terms of talking about lines for corporate responsibility. In the Melanesian context, mining companies typically express a social responsibility focus on their mining lease landowners, then lower levels of concern with, commitment to, and responsibility for social changes among communities more removed from the mining operation (Banks 2006). Often the mine will commit some resources to (and hence assume some responsibility for) the host district and other areas where the mine has impacted (downriver systems that receive mine wastes, for example), in part at least because it is now recognized that efforts focused solely on a territorially limited community are likely to fail if the wider surrounding population is excluded.

A final use of the cadastral metaphor is in relation to the internal dynamics and construction of landowning or affected communities. TNCs, often aided and abetted by States, assume a particular form of local community and explicitly or implicitly find or "create" a community of this kind. Again, Melanesia is replete with examples of this. Under the legislation in Papua New Guinea, for example, companies are encouraged to work with a model of local "clans" – a form of social organization that assumes bounded, discrete territorial groups with distinct forms of leadership. The diversity of social organization in Melanesia, though, includes a huge number that operate on very different bases: from looseknit ephemeral groupings to complex social landscapes with overlapping and interlocking groups that do not have any exclusive "ownership" of a particular territory. What is astonishing about the experience of largescale mining and oil operations in Papua New Guinea is how, over time, clan-like structures have evolved at each of these sites, despite anthropological work that shows a previous absence of such forms from most of these sites.⁴ This illustrates the ways in which communities actively respond to the cadastral lines that are imposed on them by redrawing the lines and structures of their own society.

b. Migration: Faces we do not know

One of the most destructive social processes for local communities associated with large-scale resource extraction is in-migration of workers, contractors and others to the areas around the projects (Banks,

Golub (2007) and Ernst (1999) discuss this process at length for the Papua New Guinea situation. Ernst refers to this process as one of 'entification' – or the creation of social 'entities'.

2003). In many parts of the developing world, large-scale mines act as magnets of economic opportunity for individuals and groups from a wide catchment area, generating a neglected (in the academic and policy senses) rural—resource migration flow. In these situations, pre-existing local social structures, relationships and identities are fundamentally reconfigured, often causing severe social dislocation for the original community. Control over local environments and resources is usurped, communities are fractured and identity becomes a point of contention. It is primarily this migration that brings about the "legacy of sometimes tragic dimensions", of "dispossession, displacement, marginalization and alienation in times of rapid change" (Connell and Howitt 1991, p. 196) that is intimately attached to large-scale resource development.

In terms of understanding the processes that drive this migration in the context of large-scale resource extraction, there are three broad sets of factors that appear to have a central role. Geography is critical: in many cases the mines are easily the most significant economic activity in the province. As a result, they attract those interested in picking up employment, starting a business, engaging in the informal sector (prostitution, informal mining) or in Paul Richards' (2003) term, joining a "masterless underclass" of youth seeking excitement, entertainment and opportunity. The scale and nature of the migration are influenced by factors such as the size of the population catchment, access between the areas, the level of development in the home areas, the extent of land available in the mine area, the size of the indigenous population, and constraints on movement into or within an area.

A second group of influences are the nature of the pre-existing regional linkages between the hosts and potential migrants. Where there are extensive regional networks connecting local affected communities with their respective regional neighbours, migration of individuals from these neighbouring groups is much more likely and problematic, or at least ambiguous, for the hosts. In many of these cases, the host communities have shifted from being small marginal players in bigger regional complexes to being at the centre of critical shifting regional alliances and politics. Today at Porgera and Freeport, for example, being Ipili or Amungme is something worth arguing for.

The final set of common factors centre around the nature of the indigenous group itself, particularly rules relating to group membership and land rights. The open and inclusive nature of some residential groups makes the exclusion of kin from elsewhere virtually impossible. This is not the case across the Asia–Pacific or even Melanesia, and the

Kamoro at Freeport are one group that have a less inclusive approach to migrants (Harple, 2001; Pickell and Muller, 2001), although at the same time their traditional rules relating to land ownership are much more poorly defined. Thus, culture, like geography, matters.

Despite the variety of forms and influences, this migration results in some common outcomes. Most obviously, in virtually every case, the migrant communities have higher mine employment rates and incomes and, in local terms, a more "developed" lifestyle: they consume more of the high prestige store-bought food and less of what is regarded as the more traditional garden produce. There is also often a sense from the indigenous host communities that these migrants are a considerable obstacle, often the biggest obstacle, to the local population maximizing the benefits from "their" mine: by igniting tribal wars, introducing diseases and reducing social control within the communities, and extracting an over-representative share of the employment, business and benefit streams to which locals were entitled. Based on the evidence available, there is usually at least an element of truth to all these local claims.

c. Mining and inequality

The growth of inequality around the large-scale mining sector can be conceived of in terms of three overlapping and intersecting axes: geography, hierarchy and gender (Jackson and Banks 2002). In terms of geography, at Porgera those groups living within the Special Mining Lease (SML) have been at the centre of the economic relationship with the company, in particular receiving very large amounts of compensation. This geographic inequality has created friction within the Porgeran community. Individuals outside the SML resent the way in which they have been marginalized from the economic relationship with the company: people who were previously kin are now referred to as "enemies" because of their unwillingness to distribute their cash widely (Biersack, 2006).

Nor are compensation and royalty payments equally distributed within the affected groups. The most obvious processes at work appear to be hierarchy and gender, reflecting the continuing importance of these aspects for Porgeran society, and indeed for many other such societies in the region. In one example of the influence of existing hierarchical structures within Porgeran society, two recognized clan leaders or "big-men" directly received 75 per cent of the value of the largest compensation payment made in 1992 (K520,000) and their children were among a limited group of other recipients (Banks, 1999).

Gender also plays an important role in the distribution of money within the community. Average female income during surveys at Porgera was less than a third of average male income, a point that was resented by the women (Bonnell, 1999; Banks 1999). This is obviously a finding that is not restricted to mining and indeed is common to much of the work on development and globalization.

As a result of these geographic, social and gender patterns, substantial income inequalities exist within affected communities. The cash income associated with mine development has the effect of economically stratifying the community, although this process is typically built on pre-existing patterns of stratification. The greater wealth available to communities associated with mine development is rarely applied equally to the society: "trickle-down" doesn't necessarily provide more egalitarian outcomes among traditional societies than in economists' models of modern ones.

There is, though, another side to the inequality equation in relation to resource extraction. While mining lease communities are often the recipient of very large one-off compensation payments, regular royalty and dividend cheques, wages and other payments that by most standards in the region have made them wealthy, there are two balancing factors. First, the recipients of these payments have all suffered loss of land and massive dislocations in their lives. There is often insufficient recognition (by company staff, observers, and by migrants to the area) that the mining leaseholders' wealth has come at a cost.⁵ And second, despite Filer's caution noted above, traditional norms of distribution do still operate in part to even out some of the inequalities among most of the affected communities in the region.

The Porgera case clearly illustrates broader trends in the region by highlighting that revenue streams at the community level, even enormous ones, do not equal development. Instead, strongly entrenched dependency on mine-derived benefit streams is common, along with an overwhelming focus on short-term consumption. The lesson here is that resource extraction can bring increased incomes to what are typically remote rural communities in the region, and the evidence is that absolute poverty can be brought down substantially among such communities. A more critical examination though, reveals that almost every such operation also increases inequalities along geographic and societal lines.

⁵ See Bury (2005) for a similar situation in Peru.

d. Resources and social ills

Much of the literature on the social and cultural effects of mining focuses on the social pathologies of such resource extraction. Increasing levels of alcoholism, prostitution, vagrancy, gambling, violence (including domestic violence) and lawlessness are in many respects the "poster issues" associated with transnational resource extraction operations in the region. These are the issues that capture the headlines when highlighted by external observers, in part because of the associations of these issues with historical resource frontiers in the West. Indeed, these "pathologies" often become such a dominant focus that they can obscure examination of broader issues. And while they are certainly critical, there are two cautions that need to be kept in mind when discussing such social ills. First, they are not necessarily the dominant changes from the point of view of the communities affected. At Porgera, for example, the impact of migration for the local community has been profound, primarily because of the effects on social relationships and identity, and not because of the more obvious connections with increasing alcoholism, prostitution and violence. Second, the resource extraction project often becomes the focus of blame for broader processes within society.6

In the context of efforts to promote sustainable development, the above review offers a gloomy picture. Perhaps most importantly, it signals the breadth of issues which concern communities – it is not just new infrastructure and cash but also the issues around sociality and loss of control that are of central concern. The other feature of note is the dynamic nature of these large-scale resource projects – it is difficult to plan secure futures for communities when the playing field is constantly changing so drastically. In the case of the Porgera mine, the original 1989 mining plan has been enlarged and revised to such an extent that the landowner communities originally relocated for the mining development must now be moved again to accommodate the mine expansion. This places a particular responsibility and a challenge on governments and corporations to develop flexible and responsive programmes that can deliver sustainable benefits to communities in the face of this medium to long-term uncertainty.

Intimately linked to the social conditions for communities around resource extraction projects are the presence and practices of security

The spread of HIV/AIDS in the Melanesian context, for example, is not connected in any simple way with resource frontiers and projects, and in the general sense projects are not isolated from other national or even international social and cultural changes.

forces. The record on this score is not good in Asia–Pacific as elsewhere. Human rights abuses around resource projects are well documented in a number of countries in the region, particularly where the security forces become closely linked to resource revenue streams. The obvious need for the State to protect the revenue flows they obtain from the sector, too, often results in the over-zealous trampling of rights of local communities and abuses by state and corporate security forces. This requires States to carefully and responsibly consider the broader governance and developmental context, and in particular flags the need to address the issue of how to respect the basic human rights of communities affected by projects where these same projects often have regional and national economic and political significance.

4. Local governance

While much of the focus of the resource extraction debate is on the relationship between the community and the TNC, local governance issues (such as human rights as touched on above) are critical to the ultimate condition and situation of the community. A major problem with governance in this context is the natural tendency of both community and State to rely on the TNC to assume many of the "governmental" roles around the operation. It is the corporation that has the resources and capacity and skill-sets on-site to undertake a governmental role, and they regularly become the focus of community expectations for service provision. Examples of derelict Government buildings, staffed – if at all – by under-resourced junior officers with poor and infrequent links to budget funding are common around major resource projects, despite the fact that these projects make enormous economic contributions at the national level.

One response to this in Papua New Guinea has been the development of a tax credit scheme, whereby companies are able to deliver infrastructure and services to local communities in return for taxation credit from the national government. The company effectively does operate like a State from the community perspective. The danger of this approach, obviously, is that it does little to build local government capacity and poses even greater problems for communities once the project is finished. In conditions where the very obvious presence of the corporation and its resources is many times larger than a Government presence, the key is to facilitate and improve capacity for service delivery rather than abdicate responsibility for them.

⁷ Freeport is an obvious example here – see Ballard (2002).

In recent years, these trends have not been helped by the dominant regional policy approach leaning towards State reduction and decentralization. Such neo-liberal attitudes in this sense feed into the problem of a reduced State presence. I would argue that the local, regional and ultimately national development implications of these large-scale projects are so critical to the development trajectories of the nations that they cannot be left to corporations to manage. One approach currently being promoted in Papua New Guinea is the use of Special Purpose Authorities to coordinate and intervene more actively in the delivery of government services and direct the developmental paths of the affected communities (Simpson, 2002). Another approach more in tune with the current development climate is to acknowledge that there are real limits to what is achievable through a focus on local governance alone, and to instead highlight economic development. Here, the argument is that government will follow economic development, not vice versa; hence the development of sustainable local economies that will continue after the end of the project is the best way to secure ongoing government service delivery.

Complicating the question of governance is the fact that the large-scale projects also create new players in the national polity, with local communities and representative bodies often gaining a national visibility and political clout that exceeds their size. In the Melanesian context, and probably elsewhere, such representatives and groups frequently become very adept at securing benefits through strategic (some would say opportunistic) lobbying, effectively bypassing attempts at more rational development planning and governance.

5. Local environmental effects

In many respects, the environmental aspects of large-scale resource extraction are the most obvious and significant, as well as being very well publicized. Controversies linked with the large-scale mines in Melanesia largely revolve around the environmental impact of their waste management strategies on the communities living downstream of the mine. Sites such as Ok Tedi, Bougainville and Freeport have become emblematic labels for the environmental excesses of large-scale transnational mining capital in the region generally. They have generated lawsuits, corporate soul-searching and, in the case of Bougainville, armed rebellion. The large mining operations regularly move over 100,000 tonnes of material a day and can destroy thousands of hectares of land through digging it up and then depositing it elsewhere in waste dumps

⁸ See for example, Paull et al. (2006).

and rivers systems in the form of tailings. The physical and chemical impacts of tailings on riverine systems are also well documented and often long-lasting.

If, however, we are to fully understand the impacts on and responses of the peoples affected, there is a need to distinguish between these impacts on the physical environment and the broader effects of the mines on people's lives: we need to look beyond a simple discourse of "ecological crisis". Such an alternative view would place the responses in their broader social, cultural, political, environmental and economic context, and when this is done, community reactions and initiatives in Melanesia at least can be viewed as being fundamentally concerned with control over resources (Banks, 2002). In many cases, the control sought is expressed in terms of relationships – and particularly with regard to potential or unrequited reciprocity (Kirsch, 2001) – grounding the disputes squarely in a fundamental aspect of social relations within the region.

A more robust and widely applicable framework than that of "ecological crisis" would examine the way in which control over a range of resources is affected by these mining operations. Resources in this context can be taken to be those material or socially constructed elements that communities are able to utilize to sustain (or improve) themselves (physically, culturally and socially). This approach parallels the literature on livelihoods (eg. Bryant and Bailey, 1997), in which political ecologists are increasingly incorporating the notion of environment into a framework centred on human livelihoods

There are two consequences of such a definition. First, it allows us to incorporate both subsistence resources derived directly from the natural environment and other material resources, such as cash crops and wages. Communities do make choices, albeit constrained ones, and often the desires for their own visions of modernity can outweigh any environmental negatives associated with resource developments. Second, other socially and culturally constructed resources can also be incorporated into such a definition. These can include cultural attachments to land, place, and local landscapes and environments (critical elements in many remote communities throughout the region); political resources at both local and super-local levels; and social resources such as relationships, systems of rights and responsibilities within a community. An emphasis on the inter-relationship between the "real" and the constructed nature of these resources highlights the way in which control over resources is rarely simple or stable. Incorporation of communities into wider spheres of influence, for example, can easily see a local group lose political control over its own future, although it is also possible to see elements of the reverse process at work, with local groups achieving a far more prominent voice over their own future.

In part, this debate becomes one of semantics. The use of the terms "ecological" and "environmental" has a particular resonance within developed countries, of an environment and ecology separate from society. To understand community responses to large-scale resource extraction in the region requires dropping the essentially Eurocentric divisions between the environment and the daily lives of those affected: people in many of these communities do not make the same distinctions between environmental and "other" resources. Their environmental consciousness is more holistic, and fuses the social, cultural, political, economic and environmental in a way that does not occur in the developed world. Instead of portraying this as a debate between environmental or economic explanations of conflict, we need to recognize that for these communities, the environmental *is* economic, but it is also social and political life and cultural sustenance.

6. Conclusion: trends in the region

In conclusion, there are two trends that I would like to highlight that are affecting the developmental implications of TNCs. The first is that thanks to satellite technologies and an international community that specifically monitors and seeks to shape transnational behaviour in the resources sector, resource projects throughout the region have come under much closer scrutiny. In particular, the environmental impacts of various mines on local communities have created the conditions that allow these communities to access political, legal and media resources in the international sphere. Community complaints over environmental issues may then be symptomatic of wider problems. When such objections are framed as "environmental" or "ecological" issues, the people affected and their supporters – national and international – are able to tap into a strong vein of environmental rhetoric that is more readily accepted and thus more likely to attract support in the developed world than a discourse of community development and livelihoods. The growth of civil society groups in the countries of the region, in tandem with support from the international NGOs, will also lead to greater levels of scrutiny from within the country. This is not necessarily problematic for the affected communities – indeed, it can result in significant benefits - but it can mean that the nature of the issues and the construction of problems they face are driven from the outside and may not match their central concerns

A second trend that has similar effects is the growth of concerns with corporate social responsibility (CSR). This evolving field is leading to the refinement of corporate attitudes towards community engagement, and shaping and sharpening approaches to the developmental responsibilities that they assume. In tandem with the flexible notion of "industry best practice", one of the implications of CSR is that it is frequently easier for national governments to align the activities of domestic resource extraction companies with their development policies than those of TNCs. What these two trends have in common is the way in which they create a tension between national developmental imperatives, and international forces. Sovereignty in the sense of control over the actions and outcomes of these operations is thus being contested by these rapidly evolving pressures from international surveillance and TNC corporate social responsibility standards.

Large-scale resource extraction, driven by TNCs, will continue to be part of the development agendas of many countries in the region. Rather than try and summarize the complexity outlined above, I will conclude on a rather academic point, one which I feel is critical to both understanding the industry and its developmental effects. This is that while natural resource industries are incredibly material, visceral industries – they make big holes and big messes, utilize lots of large machinery and throw huge amounts of money around – much of the developmental "work" of such operations is in the realm of words.

The complex "reality" of mining occurs in what we can refer to as a complex, multi-layered "discursive field" – the world of words. Global discourses of "sustainable development", for example, shape the actions and the words of multinational miners – they determine the sorts of responsibilities that companies are willing to assume at any particular point in time. I discussed above the ways in which the discourse of environment has opened up possibilities for new players – particularly international NGOs – to become involved in shaping the sector. Likewise, the presence of a large-scale resource extraction project creates new opportunities for local communities to re-imagine and negotiate their development expectations.

In the face of the bulldozer and dump-truck this may seem academic thumb-twiddling, but it is also a critical point in terms of engaging with the sector. There is much that has been said and written about the activities of TNCs, but much of this is ideologically driven and seeks to shape rather than reflect the realities of these activities. Rather than shadow-boxing with the rhetorical claims of communities and corporations, States in the region would do well to seek a fuller

engagement with the realities that make up the lives of the affected communities, to get to know what drives their responses to change and development. Words in this instance matter but by themselves they are not enough, and their meanings are often not as they appear.

References

- Ballard, C. (2002). "The signature of terror: Violence, memory and landscape at Freeport", in Bruno, D. and Wilson, M. (eds.), *Inscribed Landscapes: Marking and making place*. Honolulu: University of Hawai'i Press, pp. 13–26.
- Ballard, C. and G. Banks (2003). "Resource wars: The anthropology of mining", *Annual Review of Anthropology*, 32, pp. 287–313.
- Banks, G. (1998). "Compensation for communities affected by mining and oil developments in Melanesia", *The Malaysian Journal of Tropical Geography*, 29(1), pp. 53–67.
- Banks, G. (1999). "Gardens and Wantoks", in Filer, C. (ed.) *Dilemmas of Development: The social and economic impact of the Porgera gold mine 1989-1994*. Canberra and Port Moresby: Asia-Pacific Press and National Research Institute, pp. 160–190.
- Banks, G. (2001). *Papua New Guinea Baseline Study and Gap Analysis*. Prepared for the Mining Minerals and Sustainable Development Project, London. Available online at http://www.iied.org/mmsd/mmsd pdfs/png baseline.pdf.
- Banks, G. (2002). "Mining and environment in Melanesia: Contemporary debates reviewed", *The Contemporary Pacific*, 14(1), pp. 39–67.
- Banks, G. (2003). "Landowner equity in Papua New Guinea's minerals sector. Review and Policy Issues", *Natural Resources Forum*, 27, pp. 1–12.
- Banks, G. (2006). "Mining, social change and corporate social responsibility: Drawing lines in the Papua New Guinea mud", in Firth, S. (ed.), *Globalisation, Governance and the Pacific Islands*. Canberra: ANU Epress, pp. 259–274. Available on-line at http://epress.anu.edu.au/ssgm/global_gov/pdf/ch13.pdf.
- Banks, G. (2007). "Money Rain': Indigenous engagement with business models in Papua New Guinea", *Development Bulletin*, 72, pp. 36–39.
- Biersack, A. (2006). "Red river, green war: the politics of place along the Porgera river", in Biersack, A. and Greenberg, J.B. (eds.) *Imagining political ecology*. Durham, NC: Duke University Press, pp. 233–280.
- Bury, J. (2005). "Mining mountains: Neoliberalism, land tenure, livelihoods, and the new Peruvian mining industry in Cajamarca", *Environment and Planning A* 37, pp. 221–239.
- Bonnell, S. (1999). "The impact of relocation", in Filer, C. (ed.), *Dilemmas of Development: The social and economic impact of the Porgera gold mine 1989-1994*. Canberra and Port Moresby: Asia Pacific Press and National Research Institute, pp. 128–159.

- Bryant, R.L. and Bailey, S. (1997). Third World Political Ecology. London: Routledge
- Connell, J. and Howitt, R. (1991). Epilogue: "Towards the future", in Connell, J. and Howitt, R. (eds.) *Mining and Indigenous Peoples in Australasia*. Sydney: Oxford University Press, pp.196–200.
- Ernst, T. (1999). "Land, Stories, and Resources: Discourse and Entification in Onabasulu Modernity", *American Anthropologist*, 101(1): pp. 88–97.
- Filer, C. (1990). "The Bougainville rebellion, the mining industry and the process of social disintegration in Papua New Guinea", *Canberra Anthropology*, 13(1), pp. 1–39.
- Filer, C. (ed.) (1999). Dilemmas of Development: The social and economic impact of the Porgera gold mine, 1989-1994. Canberra and Port Moresby: Asia Pacific Press and National Research Institute.
- Finlayson, M. (2002). *Benefit stream analysis*. Working Paper 2, submitted to the Government of Papua New Guinea under the PNG mining sector institutional strengthening project. Canberra: Project Design and Management. http://www.mineral.gov.pg/
- Golub, A. (2007). "Ironies of organization: Landowners, land registration, and Papua New Guinea's mining and petroleum industry", *Human Organization*, 66(1), pp. 38–48.
- Harple, T.S. (2001). Controlling the Dragon: An ethno-historical analysis of social engagement among the Kamoro of South-West New Guinea (Indonesian Papua/Irian Jaya). Unpublished PhD thesis, Australian National University, Canberra.
- Jackson, R. and Banks, G. (2002). In Search of the Serpent's Skin: The history of the Porgera Gold Project. Port Moresby: Placer Niugini Ltd.
- Kirsch, S. (2001). "Changing Views of Place and Time along the Ok Tedi", in Weiner, J. and Rumsey, A. (eds.), From Myth to Minerals: Mining and Indigenous Lifeworlds in Australia and Papua New Guinea. Bathurst: Crawford Press.
- Paull, D., Banks, G., Ballard, C. and Gillieson, D. (2006). "Monitoring the environmental impact of mining in remote locations through remotely sensed data", *Geocarto International*, 21(1), pp. 33–42.
- Pickell, D. and Muller, K. (2001). *Kamoro: Between the tides in Irian Jaya*. Jakarta: Aopao Productions.
- Richards, P. (2003). "Mining and the Messiah: The masterless classes in Sierra Leone". Unpublished paper presented at the Mining Frontiers workshop, Max Planck Institute for Social Anthropology, Halle, Germany, 17 June.
- Simpson, G. (2002). Institutional Analysis. Working Paper.6, submitted to the Government of Papua New Guinea under the PNG mining sector institutional strengthening project. Canberra: Project Design and Management. http://www.mineral.gov.pg/.