# Cannot Manage without The 'Significant Other': Mining, Corporate Social Responsibility and Local Communities in Papua New Guinea

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ABSTRACT. The increasing pressure from different facets of society exerted on multinational companies (MNCs) to become more philanthropic and claim ownership of their impacts is now becoming a standard practice. Although research in corporate social responsibility (CSR) has arguably been recent (see subsequent section), the application of activities taking a voluntary form from MNCs seem to vary reflecting a plethora of factors, particularly one obvious being the backwater local communities of developing countries where most of the natural extraction projects are located. This chapter examines views of two Papua New Guinea (PNG) local communities hosting large-scale mining operations and explains the demands arising from situational relativities, which are becoming too conspicuous for mine developers not to ignore. The research undertaken with several assertions highlights the perceived imperativeness allowing companies to integrate the CSR into the essential management pursuits of running mines in PNG.

KEY WORDS: Corporate social responsibility, community relations, indigenous local communities, multinational mining companies

# Background and literature review

Usually acknowledged in passing remarks in management textbooks as a voluntary role of business organisations (Bartol et al., 1997), the concept of

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CSR has gained global currency more in the last two decades (Jirasek, 2003; Korhonen, 2003; Carr, 2000; Lea, 2002). However, what constitutes CSR differs between and within countries, the International Organisation for Standardisation Strategic Advisory Group on CSR, while acknowledging this complexity, broadly defines (C) SR to "mean a balanced approach for organisations to address economic, social and environmental issues in a way that aims to benefit people, communities and society" (International Institute for Sustainable Development (2004:4). Similarly, but of more particular reference to this research, CSR is used as organisational decision making processes in large commercial mineral extraction projects to anticipate, respond to and manage areas of social responsibility, particularly in the vicinity of their operation. It implies voluntary as well as obligatory provision of support in financing service-orientated infrastructure and other community related activities in adjacent local communities, which are often isolated from existing services and urban environment. While the sudden conspicuous revival of business ethics, in the current times has been aided by at least three dominant actors.

The first actors are the MNCs themselves; they have become extraordinary powerful actors on the global scene with their influence spread far and wide. Their foreign direct investment (FDI) "between 1985 and 1990 increased at an annual rate of 30% and in the late 1990s inflow of FDI nearly doubled to \$350 billion" (Arnold, 2003:155). Coupled with their massive economic power and political influence over host countries, MNCs seemed to have embraced CSR as a productive force to enhance their entrepreneurial success (Zwetsloot, 2003).

Next, citizens of parent countries of MNCs have become increasingly repugnant over corporate activities, which occur; in lax legal framework of particularly cash-starved host countries. Most North Americans, Europeans, and Australians, to a large extent, have found the activities of their large companies offshore as morally distasteful (Dembinski et al., 2003). From such concerns MNCs have "developed a new relation to ethical standards" in their activities (Jirasek, 2003:344).

The third group of actors influencing the MNCs in management of their CSR function have been the non-governmental organisations (NGOs). Championing the cause of ethical justice in management and production of goods and services everywhere, NGOs of some developed countries have systematically campaigned against MNCs for exercising excessive influence over public policy of governments. Environmental degradation, appalling wages and corrupt practices are some of the concerns NGOs have levelled at them. In an effort to respond to the bombardment of pressures from the NGOs, MNCs have innovated their business practices with a positive impact on host country, workers and profit (Zwetsloot, 2003).

The pressures exerted on MNCs in influencing their scope and direction of CSR function originates from advanced countries. In addition to the three actors, there seem to be another actor – seldom acknowledged in the management literature: the influence of local indigenous communities of some developing host countries. Their influence on MNCs also reflects in CSR activities. Mainly in anthropological discourse, the host indigenous communities of particularly mineral extraction sites appear to have become the – significant other – in profitable operation of mining projects (Imbun, 1994; Whiteman and Mamen, 2001).

# Mining and indigenous communities

The neglect in management literature of acknowledging the role indigenous local communities play in influencing multinational mining companies (MNMCs) is an important question worthy of investigation, in order to establish the extent to which they see the communities influence CSR roles of MNMCs. The neglect of acknowledging

indigenous local communities as actors in influencing MNMCs is the subject of investigation for this chapter.

Since a little over a decade ago, MNMCs have come to maintain a challenging role in the presence of the host government and local indigenous community, particularly landowners. The reflection of tensions and social complexities have become apparent in Australia (an exception to many advanced countries with indigenous communities) following the passing of the Native Titles Act in the early 1990s (Trigger, 1999, 2000; Keen, 1993; McEachern, 1995; O'Faircheallaigh, 2002; Crawley and Sinclair, 2003; Rumsey and Weiner, 2001) and in PNG after the collapse of the CRA operated giant Bougainville copper mine in the late 1980s, and the BHP Billiton's Ok Tedi mine debacle in the late 1990s (Connell and Howitt, 1991; Banks and Ballard, 1997; Filer, 1990). MNMCs seem to have cultivated a favourable relationship with the indigenous local communities. In other words, they tend to have embraced the CSR role into their main pursuits of operating mines.

Particularly in PNG, at times MNMCs are under constant pressure to live up to the commitments they have with government, while being responsible for the diverse impacts they generate in the host community (Filer, 1999; Banks and Ballard, 1997). More importantly, the local indigenous community in the host region insist that MNMCs address their demands for more tangible benefits from the mining operations, as a means of "compensation", in order to guarantee them peace and safety for the life of the mine (Howard, 1988, 1991).

The provision of export earnings, employment and taxes at the macro level and payment of royalties, occupation fees, and other compensation fees to the local community, particularly the traditional landowners, at the micro level are expected of MNMCs. These benefits are integral to operating the mines, as they are documented in contracts with the government(s) and traditional landowning groups. However, what is intriguing to acknowledge is the other goods and services (i.e. construction of infrastructure, roads, bridges, health centres and schools) they increasingly provide apart from attending to traditional responsibilities. This is largely the CSR role that MNMCs ambitiously (or under pressure) carry out in the regions of their

operations. These activities have become more obvious within the past few years.

Although the significance of this paper examines the CSR role of MNMCs it cannot be underestimated, as the concept has become an increasingly critical concern for large companies evident in the 1990s and thereafter. Increasingly, MNCs are turning their attention to maximising their philanthropic and other socially responsible activities towards areas where they feel their business objectives could be met comfortably by performing this role. In the PNG mining industry, there appears to be a lot of activities undertaken by MNMCs that pertain to the needs and aspirations of the "significant other" or the local community. Arguably one plausible responsibility for MNMCs in the country is to embrace the "good will" role. This commitment may have been triggered in the aftermath of the disastrous management of two Australian mining giants of two PNG mines in the past few years. The CRA's Bougainville mine catastrophe and BHP Billiton's Ok Tedi mine debacle in the late 1980 and 1990s respectively resulted in increased landowner rebellion over distribution of mine benefits and grave environmental concerns. Since the prolonged shut down of the Bougainville mine, MNCs in PNG seemed to have embraced a more "human" face in dealing with host communities (Imbun, 1994).

### Research methodology

This research was undertaken with several broad preconceived points. First, the author attempted to research the current environment, how local communities and employees of mines perceive their relationship with the mine operators, given the recent turbulent history of multinational mining in PNG. Current literature portrays a context where local communities and host government seem to develop a "love-hate" relationship with the MNMCs (Jackson, 1992; Imbun, 1994; Filer, 1996). Second, from the former he wanted to assess the extent to which local indigenous communities have become an "actor" or "significant other" in influencing MNMCs in their management of CSR, or if not the operation of the mine. He was interested in seeing if there is a relationship between the influence exerted by the local community and the scope of CSR activities undertaken by the MNMCs. Third, he was intrigued by what factors tend to influence villager perceptions towards the MNMCs. Fourth, he wanted to critically assess and explain whether meeting CSR has become an indispensable part of managing the two large mines by MNMCs in PNG. Finally, the study intended to provide implications of policy formulation in dealing with CSR and MNCs in PNG, but also to assess the potential for extrapolation of policy implications for other developing countries. In support of these objectives, the author framed five hypotheses as follows:

# Hypothesis 1:

Communities will expect the mines to provide more CSR activities as part of mining in their areas.

# Hypothesis 2:

Due to the adverse impact on villager lives and natural environments, communities see MNMCs as having no choice in assisting them.

# Hypothesis 3:

Porgeran communities will show a stronger demand for CSR activities compared to Lihirian communities.

# Hypothesis 4:

Communities will stir up trouble if MNMCs provided no or little CSR activities.

### Hypothesis 5:

Communities will show stronger affection for mining companies than government and other service agencies.

He examined the application of CSR activities in two PNG gold mines, Lihir and Porgera to achieve the objectives of our study. The discussion commences with a brief description of the two mines.

### The two mines reflected in the study

Lihir

Lihir is a world-class gold mine operated by Britishbased Rio Tinto through a public registered company – Lihir Gold Mine and commenced production in late 1997 with an estimated life span that would last till 2032. It has the world's largest underdeveloped ore body of 163.5 million tones (Lihir Gold Limited, 2003). A significant number of mainly PNG and Australian institutional and retail shareholders, Rio Tinto and representation of the Lihir people are the equity holders of the mine. Some 2000 workers and a handful of expatriates including the senior management, and a sizable number of contractors operate the mine of which 40% of the workforce is local Lihirians. Apart from the locals and expatriates who live on the island, other national workers render work on a fly-in-fly-out mode of work schedule.

Until the emergence of the open pit mine, Lihir Island which is situated off the East coast of New Ireland province of PNG existed only as a speck in the ocean. Only the Catholic Church managed to have an external social impact on the 7000 islanders after anchoring in the 1920s. Just in a matter of less than a decade the island has become impacted upon in the form of infrastructure and utilities, commercial activities, employment and a host of other opportunities. For the Lihirian island community, the arrival of the mine was a fulfillment of cargo cult yearnings, which had formed a central psyche of their social lives for many decades (Macintyre and Foale, 2002; Macintyre, 2003; Filer and Jackson, 1989).

In the context of CSR, the Lihir mine has an extensive relationship with the local community, which is guided by the Integrated Benefits Package (IBP). The IBP was a landmark accord signed after lengthy negotiation between the Lihir customary landowners, mining company and the national government apparently spelling out what "was needed to be done" by each of them in the next five years. The initial IBP commenced in 1995 and a subsequent one is in implementation phase of which a comprehensive benefit package in the form of housing, infrastructure development such as roads, electricity, health and education and economic activities have been undertaken by the mine for not

only the landowners but also for the entire island community. The implementation of the projects, most of them as part of the IBP and others, as a result of CSR have been undertaken through the Community Relations Department (CRD) of the mine.

### Porgera

Porgera gold mine is also a huge project; it currently ranks in the top five mines of the world. It is located in an isolated area of Enga Province, in the central highlands of the mainland of PNG. The Ipili-speaking people of Porgera District, numbering some 10,000, are hosts to the Porgera Joint Venture (PJV) - the mining company that operates the gold mine. The Canadian mining giant, Place Dome Group is the majority equity holder followed by South African and local Engan community interests. Before the operation of the mine in 1989, Porgera only had meagre infra-structural services - a typical feature of other peripheral districts in the province. The economy was dominated by subsistence agriculture, and supplemented by alluvial gold mining. However, the economy varied amongst the other districts, where there were cash crops such as coffee and pyrethrum, depending on the altitude. The presence of the gold mine unquestionably brought significant economic and social development to its surrounding infrastructure in Porgera, as well as the entire Enga Province.

The mine workforce numbers a little over 2,000 workers excluding contractor employees and resembles that of the Lihir mine where more than one third of the workforce is local Porgerans. With an estimated life span of the mine going past 2015, it has already made a huge impact on the lives of Porgerans and non-Porgerans, including rest of the highland provinces. The PJV's community benefit scheme is outlined in an Infrastructure Tax Credit Scheme (ITCS), which the mine initiated with the national government in 1992 after an expatriate managing director of PJV at the time advocated the concept to establish such a scheme after realising the local level government's limited capacity to implement infrastructure projects in the province. Similar to the IBP, the agreement allows, on an annual basis, the developer to spend up to 0.75% of the value of gross sales of gold production on approved infrastructure projects and to receive a tax credit from the government when paying company tax. A novel

idea, it has now become a standard practice not only for PJV, as Ok Tedi and other major mining projects have also eagerly embraced the concept. The prescribed responsibilities coupled with CSR activities of the mine form the platform for implementation of social and economic projects in Enga and adjacent highland provinces.

# Significance of community relations department

On the whole, both mines share similar features of operations with an imperative to run economically and politically safe mines, despite varying localities. One aspect, which stands apart from the rest of mining industry, is the administration and implementation of prescribed and not prescribed social and economic responsibilities through the CRD of each mine. Both mines identified this aspect as one of the essential parts of the operation, fully integrated into the main pursuit of mine management. An expatriate community relation's manager confirmed the obvious in regard to the urgency of its community outreach activities. "We (PJV) quickly came to sense that maintaining a viable mine was going to be offset (balanced) with how we responded to the expectations of not only the Porgerans but the entire Engan community" (Imbun, 1994:37).

Therefore, it is not surprising to see the importance that the mines accord to the CRD, which one mine executive termed as "the engine of the mine operation" (Imbun, 1994:38). In fact, unlike comparable mines of similar status elsewhere in the world where community relations may involve less personnel and therefore are of little significance, Lihir and Porgera mines have CRDs which have more than thirty employees of whom several are experienced expatriates who in one way or another have had prior administrative experience in dealing with community affairs in PNG. This committed section of workers ensures the smooth functioning of the various community programs and provides a vital link between the local communities and mining projects.

# Selection of sample research participants

The information was collected by survey. A questionnaire to examine CSR activities of the two gold

mines was distributed in Lihir and a matching questionnaire in Porgera. The questionnaire, phrased in English, tried to capture people's attitudes, perceptions and demands associated with the implementation of social, educational and physical infrastructure associated projects implemented by the two mines. It used 15 questions to test the study objectives. A total of 250 questionnaires were circulated in Lihir and 250 in Porgera. Participants varied: they included villagers, mineworkers, town folks and other beneficiaries (see Table I). By including a variety of stakeholders, a holistic view of the CSR activities of the mines is anticipated.

Respondents were selected on the basis of an intercept convenience sampling methodology. Participants were interviewed at popular (common) gathering areas such as main market precincts, road site market stalls, villages, and significant number of them at each of the mining townships. Since a lot of the villagers were illiterate, the author and his research assistants thoroughly explained each of the questions, in local languages, *pigin* in Lihir and *Enga* and *Pigin* in Porgera, before recording their views. The 250 questionnaires were collected in each of the locations and the response rate was overwhelming as almost everyone interviewed seemed to have an opinion on each of the mine's CSR activities.

### Results and discussion

The questionnaires were analysed to provide general data and a comparison of the two groups. Respondents to the study were considered representative of their respective local community. Table I shows frequency of gender, age, ethnicity, educational and occupation attributes of participants at Lihir and Porgera.

### Expectations of community: hypothesis 1

Hypothesis 1 suggested that local communities and those outside the immediate vicinity of the mine would have a lot of expectations from the mines. PNGeans seem to have a "natural" tendency to expect tangible projects and services from mine developers, see Table II. Numerous works on the anthropology of mining in PNG (for a literature

TABLE I

Participant attributes by locality of mines

Attribute Gender	Group Lihirians $N = 250$	Group Lihirians %	Group Porgerans $N = 250$	Group Porgerans %
M	170	68	188	74.2
F	80	32	62	24.8
Age				
<20	15	6	22	8.8
21-25	22	8.8	27	10.8
26-30	48	19.2	35	14
31–35	51	20.4	29	11.6
36-40	11	4.4	35	14
41-45	24	9	40	16
46-50	36	14.4	32	12.8
51 +	29	11.6	30	12
Participant	Lirarian 160	64	Porgeran 150	60
	Non-Lirarian 90	36	Non-Porgeran 100	40
Education				
None	80	32	95	38
Primary	42	16.5	64	25.6
Secondary	67	26.8	47	18.8
College	46	18.4	34	13.6
University	15	6	10	4
Occupation				
Mine workers	36	14.4	48	19.2
Contractor workers	47	18.8	25	10
Townsfolks	55	22	61	24.4
Villagers	90	36	75	30
Others	22	8.8	41	16.4

review see Ballard and Banks, 2003) acknowledge that local communities have become "smart" and astute negotiators with mining companies in their demand for projects and benefits. The intrusion into the previously unknown and restricted domain of corporate decision making of mine management has been prompted by a host of factors. Some of these factors include "landowner" stakeholder mentality, perception of cash-beefed-up MNMCs to national government's effective loss of control of local communities. These have allowed them to form. one mining executive termed, a "huge multi-billion dollar shopping list" demands for them to attend to before operation, whilst in operation and before the closure of the projects (Jackson, 1991; Imbun, 1994). It is therefore "normal" for landowners and adjacent local communities to form a "shopping-list" mentality of demands for the mine developers to attend to their developmental aspirations.

Table II explains the emphasis respondents of Lihir and Porgera put on various projects potentially to be undertaken by MNMCs. It seems the high scores on health infrastructure, education, airstrip facilities, income facilities and road infrastructure indicate just how desperate communities are to have these services. The expectations to establish basic infrastructure are typical of almost all PNGeans. The continued failure of government in attending to these basic needs in PNG's outback led mining communities to put pressure on the mine developers. Transportation infrastructure around the two mines has been developed to exceptional standard by mining companies to cater for effective delivery of goods and services: the people have come to except it as an indispensable aspect and the foundations for development.

The low score in some of the categories implies two things. First, they are not as imperative as the

TABLE II
Expectation of local community in regard to benefits arising from MMNCs

Expectation	5	4	3	2	1	Mean Scores		<i>t</i> -statistic	Eta 2
	Total Attention	Some	Little	No	Don't Know	Lihir	Porgera		
Road infrastructure	55.4	25.3	15.2	4.1	-2.23	2.82	5.33**	0.115	_
Income activities	52.1	42.6	3.2		3.2	2.16	2.39	6.08**	0.138
Electricity	22.4	32.7		44.9		1.72	1.87	1.12	_
Health infrastructure	56.9	35.6	4.1		8.5	2.45	2.57	5.68**	0.173
Education	54.3	44.5			1.2	2.14	2.23	5.62**	0.113
Law and order	12.1	22.2	12.3	45.6	7.8	2.11	2.18	1.02	_
Airstrip facilities	57.3	30.2	3.2	6.5	3.8.	1.34	1.45	5.55**	0.145
Sports activities	23.4	42.8	15.2	6.3	3.3	1.22	1.34	0.24	_
Others	22.5	23.3		12.5	31.3	1.50	1.58	0.80	_

Notes: Mean calculations exclude 'Don't know' cases. Higher score indicates more demand placed on the mining companies or mines to deliver service.

Difference significant at \* 5% level.

(Controlling for experimentwise error rate).

infrastructure needs and second, demands such as law and order and sporting activities are seen as the responsibilities of government and the community. The category "other" needs such as company support for church activities, school fee assistance and cash donations to landowner communities and agricultural support advices were less frequently acknowledged. Many people thought those to be on the fringe of activities for CSR of mining companies.

# Choice in assisting local communities: hypothesis 2

Most respondents thought the benefits they were getting as form of CSR activities were anticipated and therefore served as form of compensation to make up for the seemingly adverse impact of the mines. The degree of variation in acknowledging this premise (hypothesis 2) seems to be evidently influenced by the understanding of current interest and issues associated with large-scale development of natural resource both in PNG and elsewhere. Bougainville mine crisis and Ok Tedi environmental debacle have become two topical "household talking points" in the country of how large scale mining projects can bring particularly environmental devastation to immediate local and down stream communities where mine

tailings pass. The educated workers in this study (see Table III), especially the mine and other (contractor and government) workers, and to some extent mine town residents, were well aware of the adverse impacts of the projects. For them, therefore, MNMCs were compelled to promote goodwill amongst the people in the host environment to ensure appropriate compensation in the form of CSR projects.

Local people formed impressions of their own situations, particularly in the context of adverse social impacts generated from the mining projects. Numerous social impact studies (for example, see Filer and Jackson, 1989; Filer, 1999) undertaken on local communities adjacent to mining projects confirm that local people had the inclination for the developers to shoulder most of the responsibility for the adverse impacts occurring in their communities. Apart from the direct environmental impacts, social upheavals, law and order problems, influx of outsiders, sexual promiscuity, social stratification and alcohol abuse were some of most obvious issues, local people associate with the advent of mining projects. They acknowledge that as MMMCs are the cause of these problems they should be compelled to mitigate them by compensating them in the provisions of appropriate projects. However, the "visitors" in the survey, many of them from outside the mine areas, also agreed that MNMCs have little

<sup>\*\* 1%</sup> level.

TABLE III

Mining companies have no choice in assisting local communities

Perceptions		4 Agree	3 Disagree	2 Strongly disagree	1 No opinion	Lihir	Porgera	<i>t</i> -statistics	Mean scores eta 2
Visitors	30.5	54.6	6.3	2.1	7.5	4.24	4.49	2.14*	0.32
Villagers	45.1	53.4	2.3	0.2	0		4.32	4.44	1.43
M/workers	56.3	32.0	5.4	2.1	4.2	4.21	4.32	0.75	
O/workers	56.5	40.3	1.2	0	2.0		4.48	4.49	0.76
T'residents	48.3	35.2	9.7	5.4	1.4	4.12	4.32	1.26	

Notes: Lower score indicates more strongly agree.

Two-tailed t-tests.

Difference at \* 5% level.

(Controlling for experimentwise error rate).

choice but to assist the local communities in their economic and social endeavours. A small number of them thought there was little issue to be made of the adverse impact generated by the projects and therefore whatever assistance provided for by them was done purely on goodwill. When comparing views from Lihir and Porgera there seems to be little difference that MMMCs impacted adversely causing environmental and social ills spoiling their once pristine and tranquil outback. Therefore, the current provision of assistance in the form of infrastructure, social and economic support developments is expected and represents a fulfilment of the MNMCs' responsibilities.

### Expectations vary by locality: hypothesis 3

The author was interested in finding evidence of differences between Lihir and Porgera in respondents' demand for CSR projects. The matter of concern was the respondents' general expectations of the MNMCs' assistance to the communities and not simply with the individual's satisfaction with the current level of local CSR projects. The study specifies responses of survey participants towards function of CSR and related activities of the mines in terms of the extent to which they express general views in the whole concept of CSR and related activities of the mines. One of the concerns of the study was to find out how knowledgeable the participants have become in terms of the extra curricula

activities of the two mines in particular, and mining assisted local level development in general. However, in fact, it is important to recognise that community demand for social and economic projects from MNMCs in PNG had been identified as a significant determinant of the effectiveness in the exercise of CSR function of MNMCs in the PNG (Imbun, 1994). Thus, the findings of this study are also likely to have similar implications for such outcomes.

The study has ventured a hypothesis suggesting that respondents in Lihir will show lower levels of demand in CSR activities (see hypothesis 3). The hypothesis was framed as a result of the less competitive and therefore gene rally more peaceful nature of their island. Other salient characteristics of the Lihirians are isolation, homogeneity and a matrilineal society divorced from the mainland New Ireland; Lihirians are known for leading passive and subdued lives devoted to church going, subsistence farming and domestication of animals (Macintyre, 2003). In fact, the best parallel may be drawn with the Misimans who wanted a limited social impact on their island and did not want to tolerate the usual influx of "outsiders" apart from the skilled national and expatriate workers who were to be employed on the island's gold mine. They were successful in exerting pressure on Placer Pacific, the mine developer, not to develop a mining town, which they thought had the potential to drastically alter their tranquil lifestyle. Similarly, the demands echoed by Lihirians in he lead-up to the mine resembled of the Misimans demands as they did not want their island to be swamped by outsiders in search of work from the mine.

In contrast, respondents in Porgera were predicted to show high levels of demand in pressurizing the Porgera mine to provide goods and services as a gesture of CSR. Unlike mining on isolated islands like Lihir and Misima, which were sparsely populated and isolated, Porgera mine happens to be located in a densely populated Enga province, whose people lived in a highly competitive society characterised by warfare, elaborate exchange patterns and culturally active in the pursuit for networking and spreading alliances. It must be recognised, however, that the establishment of the Porgera mine, was seen not only by Porgerans, but entire Enga province, adjacent Southern Highlands and also the entire highlands region as the medium to benefit from employment and other business spin off activities. The overlapping nature of forming alliance to the project from a huge number of people emerged partly because of the main highway, which brought goods and services to the mine and originated in the costal city of Lae, passes through four densely populated provinces before reaching Porgera. In order to have a trouble-free service delivery to the mine, in the mist of general declining law and order problem, the Porgera mine has embraced CSR function seriously in responding people's expectations in Porgera as well as in distant places (Imbun, 2000). Culturally, the people's aggressive behaviours coupled with the deteriorating conditions of existing physical and other forms of infrastructure (i.e. educational, health) have added a critical imperative to the relentless pursuit in demanding for projects from the Porgera mine.

The author measured general acknowledgement in the utility of expectations using eight question-naire items, as show in Table IV. A single scale (CONFID) accommodated all the scores, with an alpha of 0.77. In congruence to hypothesis 3, found the Lihir sample had a slightly lower mean, displaying lower degree of acknowledgement than the Porgera respondents. While the eta 2 confirms a relatively weak relationship, generally Lihirians influenced by their isolation and a less social and politically competitive society seem to have the tendency to acknowledge the mine's duty to assist them in their plethora of needs. But it was found that they (Lihirian respondents) were not as eager as

the Porgeran respondents were in their attempt to see Porgera mine playing an instrumental role in facilitating social and economic development in their areas. This suggests that a mining company's degree of CSR activities can be influenced by the direct physical accessibility of communities to the operation of the project and ethnicity, temperament as hosts to the projects. Analysis of the individual items in Table III shows that Porgera respondents were more likely than Lihir respondents to agree that perceptions and activities associated with CSR are integral requirements for mining companies to meet on a daily basis in the business of mining for ores.

CSR as vehicle to pacify local communities: hypothesis 4

In the study, the survey participants were also asked whether a lack of attention to the CSR activities by the MNMCs would pose any conflict with the local communities and other would-be recipients of projects. The response to this premise (hypothesis 4) is predictably generally confirming as the average view was that a mine's lack of meaningful investment in CSR projects would be at its own peril. Survey respondents in Lihir and Porgera agreed that it was wise for mine developers to invest in social and economic activities in particularly local communities as a social insurance to operate safe projects (see Table V). This view is not uncommon amongst an increasing majority of PNGeans who critically see large-scale developers should have responsibility in putting tangible development in the places of operation (Author interviews in Lihir and Porgera, November and December 2004). In response to this mounting perceived pressure, MNMCs have indeed been forced to come up with some proactive policies in their relationship with local communities. One of the immediate issues they face in any mine development stage is in response to the disgruntled majority of locals who often do not comprehend the capital-intensive nature of the industry and requirement of a few workers to operate the highly mechanised extracting machinery. Imbun (2002) observed that limited employment opportunities generated by the projects and the superficial presence of government services in the backwaters where mining operations take place, MMMCs

TABLE IV
Lihir versus Porgeran expectations from MNMCs

Community expectations	Mea	n Scores	t-Statistic	Eta
	Lihir	Porgera		
The community needs a lot of services to be provided by the mine	3.61	4.33	6.80**	0.175
The lack of basic services is the reason for the mine to assist the community	3.88	4.08	4.60**	0.073
The mine should show a lot of good deed as it is in our area	4.23	4.56	2.66	_
The current level of assistance provided by the mine is insufficient	4.13	4.16	0.29	_
The mine should show initiative in generating economic activity	3.98	3.86	1.25	_
The mine should view the local community as equal partner in running the mine and thus listen to us	3.60	3.68	0.80	_
The mine is doing its work as it is assisting the community	3.87	3.61	2.72	_
The mine is resource-rich and therefore should provide a lot of assistance to the community	3.85	4.01	1.64	_

Notes: Respondents recorded their agreement on a 5-point scale (5 = strongly agree, 1 = agree nor disagree, neutral midpoint). A higher score indicates a higher degree of general agreement in each of the statements in the demand for more CSR activities.

Two-tailed *t*-test: Difference significant at \*5% level: \*\* 1% level

(Controlling for experiment-wise error rate)

Mean score on all 8 items: CONFID

Lihir: 3.65; Porgera 3.55; t = 2.16\*; eta2 = 0.017

inevitably found themselves in the dual situation of being foremost an economic agent for the share-

TABLE V

People would cause trouble if the mine does not assist the community and others Perceptions compared.

Location	Respondents n	Mean	Extent of gravity of responses (1–5) Standard Deviation
Lihir	250	3.95	1.89
Porgera	250	4.11	1.92

Note: The 'mean' and 'standard deviation' are based on responses to a 5-point scale (5 = strongly agree, 4 = agree, 3 = disagree, 2 = strongly disagree, 1 = agree nor disagree).

Levene's test for equality of various is significant (p = 0.003). Thus, the use of equal variances was not assumed t-test.

holders, but also as social agent for bringing development to the host communities and the nation.

In particular, landowners and other locals insist that the miners address their demands for more tangible benefits from the mining operations, as means of "compensation", in order to guarantee them peace and safety for the life of the mine (Imbun, 1994; Jorgensen, 2001). Most Lihirans and Porgerans seemed to endorse this view of provision of infrastructural projects and other assistance to adjacent communities and beyond is a prerequisite and on going obligation in order to operate socially safe mines. In other words, consequently, out of willingness and, sometimes, reluctantly, MNMCs have become agents for making tangible contributions in the form of regional infrastructure, public service, regional and local businesses, community welfare, and direct assistance to landowners through other schemes. This is largely the role of CSR that they ambitiously (or under pressure) carry out in the regions of their operations, a function which has

become an indispensable part of managing large mining projects in PNG. Indeed, the Bougainvillian landowner-revolt against the CRA over insufficient resources allocation has sounded a bleak warning to existing and other prospective mine developers to embrace local communities as an integral part of project management as necessary to avoid the potentially disruptive conflicts. Similarly, the landowners and local communities of project areas have learnt a lot from this conflict to be aggressive and demanding in order to receive projects and services from MNMCs. They seem to be wary of and proactive to management of landowner and community grievances as part of their CSR in their areas of operations.

# Affection for service provider: hypothesis 5

If the local communities seem to exert increasing pressure on the mining companies' management of CSR, there is a likelihood of a tumultuous relationship between the two parties. Respondents of the study were told to rate their preference in comparison of the mine(s) to four other (perceived) service providers in their areas (see Table VI).

Yet, despite the pressures communities exert on mines, the author found that generally the Lihirans and Porgeran participants have admiration for the two mines respectively (hypothesis 5). While, their perceptions of the other service providers, provincial government, national government, churches and other development agents (i.e. NGOs) were rated

lowly. The lowest score on average came from the category, the "others" followed by churches, national government and provincial government. Although the government services are mainly in the form of educational, health, law and order, agricultural and transport infrastructure, the conditions are often appalling and regular delivery and maintenance of physical infrastructure is a rarity. While churches sometimes relieve the government in provision of some social services, their, often limited funding, also makes the schools and health centres less effective. The NGOs are mostly active in campaigns in some rural areas for better and transparent development practices, however service delivery is not their priority. The survey participants' generally positive endorsement of MNMCs' CSR initiated social and economic development is a testimony to the current trend of development occurring in the rural areas.

The MNMCs have created a social atmosphere in which local recipients and others have come to view the government (national and any provincial and lower-level government) with contempt because it has failed to provide basic services and economic development. Local people have the least respect for government because it has failed in its obligations. Conversely, local communities tend to view the mining projects as the development medium and they would favour the MNMCs to provide more services, while at the same time mining the resources. In some regions where they are slow to identify areas for development, landowners and others have taken the lead in pressuring them with extraordinary demands to make more funds available

TABLE VI
Perceived affection for service providers in the local area

Service Provider	N	Mean	Standard Deviation		
	Lihir	Porgera	Lihir	Porgera	
Mine	4.71	4.32	1.31	1.33	
Provincial Government	2.53	2.72	1.56	1.61	
National Government	1.14	1.11	1.71	1.76	
Churches	1.53	1.23	1.83	1.85	
Others	0.45	0.62	1.00	1.10	

Note: The 'mean' and 'standard deviation' are based on responses to a 5-point scale (5 = high affection, 4 = medium affection, 3 = low affection, 2 = no affection, 1 = don't know) indicating how Porgerans and Lihirans perceive of service providers in their community. Their affection or lack of it of the mine is compared with the other service providers, including the government.

for such initiatives (Toft, 1997; Imbun 2002). As a matter of fact, it is obvious that local communities and MNMCs have a love-hate relationship that is characterised by the provision of tangible projects courtesy of the latter.

### Discussion

This research, whilst examining CSR, attempted to shed light on the virtual lack of development in isolated areas, in terms of economic, political, and social structures that has influenced the MNMCs to take up the added responsibility of helping to bridge this "development" gap with the rest of the people of PNG. Such an increase in this role is not only influenced by government's (at various levels) lack of attention to these areas, but also the local people's inability to involve themselves in economic activities that would enhance their own development. In other words, as a result of this interplay of government inability to make its presence felt in much needed areas of the country invariably allows local circumstantial relativities to putting pressure on MNMCs to extensively involve with CSR activities. As Jackson (1991:31) observed, the local people generally "very much welcome mining projects (at least at first)". Only a weak presence of economic activities and political structure is maintained in these areas, and some of the health, education, and other social services are inadequate to fully provide for the entire population. This has meant that the non-availability of local businesses, and minimal cash coming into these isolated areas through limited migration have hindered the progress of social and economic change, until the arrival of MNMCs.

The respondents of this study apparently acknowledge that their expectations can be best attended to by the MNMCs because of their technical efficiency and financial resources. As it seems, they are compelled by the situational circumstances to play a leading role in the provision of social services for the people, as well as conducting mining operations. In other words, meeting CSR is becoming an indispensable part of managing large mining projects in PNG. Hence, the MNMCs are seen by these isolated people as the fulfillers of their dreams to have better services.

However, on the other hand, it can be argued that MNMCs have been affected by their own adverse impact on the environment, and that this is what is compelling them to develop social and economic services in the impacted areas. The goodwill gesture associated with projects located along or around the tailings disposable areas are often seen and tacitly taken into consideration as compensation packages. In fact, what is more noteworthy is that the people who live beyond the areas of negative impact also benefit from the same services, which the MNMCs provide in the area. The increasing attention provided by mining companies to the host communities heralds the ideal positive social environment they want to maintain for their continuing operations in these areas. Diagram 1 shows the continual increase of the CSR function exercised by community relations departments of MNMCs in PNG.

In short, it must be stated that MNMCs in PNG are often compelled to increase their CSR commitments to their host areas because of the inadequate basic services provided by the government. Such an increase in this role is not only influenced by government's lack of attention to these areas, but also the local people's inability to involve themselves in economic activities that would enhance their own development. Therefore, what has emerged is that the MNMCs' increasing reliance on CSR is effectively used as a medium to respond to huge expectations of host communities. This in fact, has become the norm of managing mines in PNG.

# Review and potential for future research

This research was based on several premises and the findings, in one way of another, support the assertions made in the outset of this paper. First, evidence from the two mining communities of Lihir and Porgera demonstrate that near majority of our survey respondents seem to have unparallel expectations of mine developers to provide services where there is a lack of government presence. It is increasingly apparent that the activities granted as a result of CSR are seen as requirements undertaken by companies in order to mine in host areas. Second, notwithstanding the voluntary nature of some of the projects, it is amazing to acknowledge the people currently see MNMCs having little choice in addressing tangible

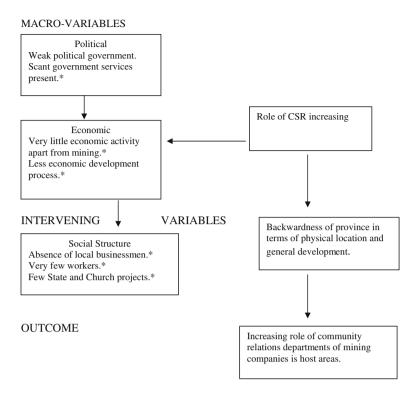


Diagram 1. The CSR function of MNMCs in PNG Note: \*CSR role increasing Source: Imbun, 1994:32.

needs of the host communities. They (developers) are viewed as custodian of bringing social and economic changes to their once pristine and tranquil areas and therefore they should be make amend where inevitability of social and economic issues persist.

Further, it also found that Lihirians and Porgeran respondents slightly differed in their perceptions to the degree of pressure that should be exerted on mines to deliver CSR activities. One obvious point of this difference may be explained by the complex situational relativities of physical accessibility to their location by outsiders, social and cultural values and the project's potential impact on adjacent and distant communities. While, Porgera respondents were able to be more demanding than their Lihirian counterparts reflecting their cultural tendency. Fourth, we observe that a neglect of CSR attention is done on one's own peril, as particularly local communities are emphatically critical observant of mining companies' benevolent deeds in their areas. Critics, like Filer (1990), refer to mine developers as sitting on a "time-bomb" which is likely to explode in their face if communities are neglected in provision of tangible benefits for a long time. Finally, the research illuminates the fact that local communities tend to show more affection for mining companies than the real government as the former seems to be providing most of the tangible projects which otherwise would be the natural duty of the latter. There is little dispute to this emphatic acknowledgement and this mode of thinking would not differ for a long time as long as government provide lip service to often backward resource owning communities and mining companies consistently adhere to the CSR activities.

While this work is one facet of looking at the pragmatic principle of CSR in the context of two mines, there is potential for more work to be done. Such research should respond to issues like:

The provision of social services as commitments to principles of ethical behaviour in the local communities seems a genuine effort in assisting poor villagers; however the obvious question is whether there exists another hidden agenda that the action would like to cover up.

How do MNMCs acquire and maintain local consent in order to keep on operating in their community? Although the consent of the PNG

national government is explicitly legitimated and entered in contacts, how is local consent from communities cultivated and maintained in order to operate safe mines. The ways and means the companies explore and use to get approval from local people might be examined to see the mode of relationship created between the two parties.

Are negotiations held in good faith and does prior community consultations occur prior to electing the mode of developments and other benefits to be brought to the communities. The issue of fair representation in meetings to allow for local input might also be interesting to note – who actually determines what type and which projects should be established.

What constitutes a "best practice" of CSR from a "bad practice" and can a national benchmark be developed? How is that benchmark shaped and maintained in ensuring tangibly lasting projects are in place well before the departure of MNCs?

Finally, what are the foundations on which state-company relationship is based? Of course, a state has the ultimate regulatory power to oversee company activities, but how does state power undermine or encourage a company's CSR activity.

The author only identifies these immediate issues but there is a plethora of dynamics of CSR, which requires further research. The dissemination of ideas through scholarly research endeavors would not only explain the pragmatic application of the principle but also have the potential to offer lessons to further refining and tailoring the application and regulation of CSR to best serve the needs of particularly local host community recipients.

### Concluding remarks

This research discusses that meeting CSR has now become an indispensable part of managing mines in PNG. Two major strengths emerges and one of them is local communities' ability to exert pressure on the mines to deliver projects and, second, the mines' positively acknowledge the demands of their host areas which are some of the least developed in the country. The infrastructural and other social projects demanded by the people to build in host areas are unquestionably genuine, and there is good reason to believe that such initiatives would not have

occurred if basic social and economic services in their areas had not been to an acceptable standard.

There have been reasons that compel MNMCs to respond favourably to the expectations and demands of not only locals of host areas, but also provincial groups, and outside organizations. The first lies in the physically isolated and service starved areas in which they operate. Because of poor infrastructure and lack of efficient social services in these areas, mining companies are morally and socially obliged to help in upgrading and providing some of these services. The second relates to MNMCs merely meeting expectations and demands of local people and other social organizations. Local people in project areas, especially, are letting them know that they own the land (not the government), and that their demands should be met either before or after the mining operations; that is, if they want to stay in their areas, they should devote some of their resources to "where the mouth is".

Similarly, another reason lies in how the educated civil servants and local and national politicians view MNMCs in their provinces. The educated elites still think that they are not doing much in their areas of operations, and that they will only do it if they (latter) are pestered or forced into it. None of the reasons are without urgency or of great significance. In particular, the local people and their educated elites and politicians enjoy an unprecedented upper hand in influencing and negotiating for developments with MNMCs – more so than the national government.

Notwithstanding, this paper has argued that the meeting of CSR lies in the management decision-making processes of mining companies; that is, promoting goodwill in host areas is critical to their survival. They have come to acknowledge that the isolated societies in which they operate are their inseparable partners. Therefore, CSR lie at the heart of this partnership. In the long run, the CSR activities by management of MNMCs are likely to be even much greater. Therefore, the key challenge to the MNMCs in the 21st century is to integrate CSR into the core pursuit of managing mines and equally acknowledge local communities as genuine stakeholders and relatively on par with the share-holders.

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